



**BT YOUNG SCIENTIST
& TECHNOLOGY Exhibition**



Driven by innovation, delivered by BT

2019

EXHIBITION GUIDE

It Starts Here

10 – 12 January

www.btyoungscientist.com



An Roinn Oideachais
agus Scileanna
Department of
Education and Skills





BT YOUNG SCIENTIST & TECHNOLOGY Exhibition



Driven by innovation, delivered by BT

Contents

- | | | | |
|----|---|----|-------------------------------|
| 3 | Foreword from Shay Walsh | 38 | Technology |
| 4 | Sponsors, partners and exhibitors | 44 | Special acts |
| 6 | The awards | 48 | World of Science & Technology |
| 9 | BT Young Scientist & Technology Exhibition Judges | 54 | Eco Zone |
| 10 | 2019 Projects - Quick search | 56 | Past winners |
| 14 | Biological & Ecological Sciences | 58 | The Primary Science Fair |
| 22 | Social & Behavioural Sciences | 62 | BT Business Bootcamp |
| 31 | Chemical, Physical & Mathematical Sciences | 64 | Daily event schedules |
| 34 | Exhibition map | 67 | BT - A business with purpose |

Social Networking at BTYSTE 2019

Keep in contact with what is going on at BTYSTE through Twitter and Facebook, why not put some comments up there yourself! Go to www.btyoungscientist.com for direct links to all of our social media platforms. Please use the hashtags #BTYSTE

#ITSTARTSHERE



Get the app

Get all the latest information about the exhibition, events and updates direct to your mobile, absolutely free!

Features include Interactive Exhibition Map, Getting Here, Search Student Projects, Schedule of Events, Social Network, Awards, History, Past Winners, Photo Gallery and more...





Welcome to the 2019 BT Young Scientist & Technology Exhibition

I am delighted to welcome you to the 55th BT Young Scientist & Technology Exhibition, one of the world's oldest and most successful schools science and technology fairs. Since its foundation in the 1960's by Dr. Tony Scott and the late Fr. Tom Burke, over 90,000 students have entered a project into the exhibition, many of whom went on to forge successful careers in the fields of science, technology, engineering and maths.

At BT, we are passionate about these subjects because we see the potential they have to enhance our daily lives and be solutions to real issues in our schools, our local communities and the wider world around us. Through the BT Young Scientist & Technology Exhibition we want to inspire young people to be creative in the classroom and to show them that through research and critical thinking they have the ability to think the unthinkable, solve the unsolvable, break the unbreakable and fix the unfixable.

I am pleased to see that this year, over 55% of qualified projects are from girls and that there's been a strong increase in the number of girls qualifying in the chemistry, physics and mathematics category in particular. As a company that has thrived by investing in a diverse workforce, we believe we have a responsibility to inspire more young women to consider studying science and technology at third level and to ultimately bring a greater balance to the STEM industry as a whole.

When students begin on their project journey we encourage them to think about the world they live in and what they could do to improve, enhance or perhaps change something that holds us back in our daily lives. It is this approach that yields the most success and

as you walk around the Exhibition you will be amazed at the results of our students' journey of research and critical thinking. I am particularly heartened to see that almost a third of the projects you will see this week are based on protecting our planet from climate change, showing how in tune our young people are to the powerful global issues affecting our lives today.

Over the course of the week, visitors will see how all the projects vary in topic, complexity and approach. From the simplest of ideas to mind blowing multi-faceted equations, every student should be incredibly proud of how much they achieved to reach the final stage of the Exhibition. They may not know it now but they have developed skills along this process that will benefit them throughout their entire careers.

As well as the Exhibition itself, there are some fantastic science shows to take in and a feast for the mind awaits in the world of science and technology. And let's not forget our Primary Science Fair exhibitors, our budding young scientists, whose boundless enthusiasm and unique projects continue to bring an extra element of magic to this wonderful Exhibition.

For one outstanding student or group, the title of BT Young Scientist & Technologist(s) of the year awaits and the chance to represent Ireland at the EU Young Scientist competition in Brussels in September 2019. Not to mention 140 additional awards for both students and teachers. But as we know with this Exhibition, it's about far more than winning an award. It's about making friends, meeting some hugely inspirational people, growing in confidence and having a lot of fun along the way.

As always, we could not deliver this Exhibition without the support of our key partners; the Department of Education and Skills in the Republic of Ireland, Department of Education in Northern Ireland, Analog Devices, RTÉ, Cisco and Perrigo. I'd like to thank them sincerely for their continued investment in this Exhibition and for understanding the real value of this event. Finally, to our 80 esteemed judges who have the tough task of selecting our winning participants. Thank you for your time, your professionalism and ultimately, your continued passion for the BT Young Scientist & Technology Exhibition.

Shay Walsh

Managing Director, BT Ireland

**Proud organiser of the BT Young Scientist
& Technology Exhibition.**



The **BT Young Scientist & Technology Exhibition 2019** is proudly sponsored and supported by;



**An Roinn Oideachais
agus Scileanna**
Department of
Education and Skills

RTÉ



Department of
Education

www.deni.gov.uk

AN ROINN
Oideachais

MÁNNYSTRIE O
Lear



Perrigo®

Quality Affordable Healthcare Products®



***unge
forskere**





BT YOUNG SCIENTIST & TECHNOLOGY Exhibition



Driven by innovation, delivered by BT





The awards

Main awards

BT Young Scientist & Technologist(s) of the Year 2019

Individual or Group

- BT Young Scientist(s) of the Year Trophy (perpetual)
- Cheque for €7,500 / £6,750
- The chance to represent Ireland at the European Union Contest for Young Scientists

Best Individual or Best Group

- BT Trophy (perpetual)
- Cheque for €2,400 / £2,160

Runner-up Individual and Runners-up Group

- BT Trophy (perpetual)
- Cheque for €1,200 / £1,080

Please note if the BT Young Scientist & Technologist of the Year is awarded to an Individual, a Best Group Award will also be made. If the BT Young Scientist & Technologist(s) of the Year is awarded to a Group, a Best Individual Award will also be made.

Special awards

We are proud to have a fabulous range of special awards at this year's Exhibition presented by our partner organisations. Special awards recognise excellence in specific areas. Examples include projects with a focus on innovation in technology, physics, chemistry, sustainability, recycling, the environment, research or improving cancer awareness. Each award is industry-sponsored and details of each organisation and the awards can be found on the Awards section of our website www.btyoungscientist.com

Category awards

There are 36 prizes for individuals and 36 prizes for group projects. The prizes take the form of 1st, 2nd and 3rd in Junior, Intermediate and Senior sections of each of the four categories:



Social & Behavioural Sciences

e.g. economic, geographical, psychological or sociological studies of human behaviour, nutrition, social anthropology, political science.



Chemical, Physical & Mathematical Sciences

e.g. chemistry, physics, mathematics, applied mathematics, geology, engineering, computer programming, meteorology, astronomy.



Technology

e.g. communications, electronic systems, robotics, computing, control technology, applications of technology, biotechnology, automation.



Biological & Ecological Sciences

e.g. agriculture, anatomy, biochemistry, biotechnology, ecology, horticulture, physiology, medical science, veterinary science.

The prizes, for both Individual and Group projects, are:

1st prize
€300 / £270

2nd prize
€225 / £202

3rd prize
€150 / £135

In the event of a tie in any category, the prize money will be split equally. A number of highly commended and display awards will also be awarded in each category by the panel of judges.





Gold Partners awards

Student awards

Analog Devices Student Award

This award is presented to an individual or group for outstanding work exhibited in the Technology category, except where the project has been selected as BT Young Scientist & Technologist(s) of the Year. The prize consists of a trophy and a trip to the USA as the guest(s) of Analog Devices, visiting San Francisco and Los Angeles. In addition, Analog Devices will donate €2,500 to the school of the winning student(s) as a contribution towards its science laboratory equipment fund*.

Perrigo Student Award

Perrigo will present an award in the Biological and Ecological category to the best placed project, either group or individual, except where the project has been selected as BT Young Scientist & Technologist(s) of the Year. The winning project will be awarded €2,000.

RTÉ Student Award

RTÉ will present an award in the Social and Behavioural Sciences category to the best placed project, either group or individual, except where the project has been selected as BT Young Scientist & Technologist(s) of the Year.

Cisco Student Award

€2,000 will be awarded to the winner of the best Chemical, Physical and Mathematical Project.

*Analog Devices will contact winner with details, terms and conditions.

Rev Dr Tom Burke bursary

Fr Tom was one of the co-founders of the project and sadly passed away in 2008. In memory of his contribution to the project, a €1,000 bursary is awarded in his name to an individual participant who is deemed by the judges to be the best communicator. This will be paid on application to a student to help them in their second/third level education.

This bursary will be open to participants of all categories across all age groups, but the winner cannot be either the overall Individual Winner or Runner Up.

Founders medal

A medal will be awarded in the name of the co-founders of the exhibition, Dr Tony Scott and Fr Tom Burke, details to be announced at awards ceremony.

Educator of excellence awards

These awards will be presented to the teachers whose commitment and encouragement have consistently enabled their students to participate successfully in all categories of the exhibition.

Analog Devices Educator of Excellence Award - Technology

The winner receives the Analog Devices Trophy and a trip to USA, to a destination of your choice, as the guest of Analog Devices*.

Perrigo Educator of Excellence - Biological and Ecological Sciences

The winner receives a bursary of €2,000 and a Perrigo Trophy.

BT Educator of Excellence - Chemical, Physical & Mathematical Sciences

The winner receives a bursary of €2,000 and a BT Trophy.

BT Educator of Excellence - Social and Behavioural Sciences

The winner receives a bursary of €2,000 and a BT Trophy.





**BT YOUNG SCIENTIST
& TECHNOLOGY Exhibition**

BT



Driven by innovation, delivered by BT

Special awards

We are pleased and proud to have a fabulous range of Special Awards at this year's Exhibition. Each award is industry-sponsored and details of each organisation and awards can be found on the Awards section of our website www.btyoungscientist.com

This year, Special Awards will be presented by our partner organisations. Special Awards recognise excellence in specific areas, examples include projects which have a focus on innovation in technology, physics, chemistry, sustainability, recycling, the environment, research or improving cancer awareness.

Full details of all the Special Awards and the criteria for each can be found on our website www.btyoungscientist.com

Schools awards

Each year two school awards are made, one for Best School in Northern Ireland presented by BT and one for Best School in Republic of Ireland presented by NAPD. These are presented on a points based system and cannot be won by the same school in a three year period.



Commission for
Communications Regulation



Central
Statistics
Office



An Roinn Talmhaíochta,
Bia agus Mara
Department of Agriculture,
Food and the Marine



Food Safety 1999
AUTHORITY OF IRELAND 2019
PROTECTING CONSUMERS FOR 20 YEARS



Geological Survey
Suirbhéireacht Gheolaíochta
Ireland | Éireann



Hewlett Packard
Enterprise



An Bord
Taighde Sláinte
Health Research
Board



IE Domain Registry



Institute of Physics
in Ireland



IRISH RESEARCH COUNCIL
An Chomhairle um Thaighde in Éirinn



maxim
integrated™



Mental Health
Ireland



Údarás Um Shábháilteacht Ar Bhóithre
Road Safety Authority



Irish Aid
An Roinn Gnóthaí Eachtracha agus Trádála
Department of Foreign Affairs and Trade



Trinity College Dublin
Coláiste na Tríonóide, Baile Átha Cliath
The University of Dublin



UCD Social Sciences





BT Young Scientist & Technology Exhibition Judges

Biological & Ecological Sciences



Dr Fidelma Butler
Dr Stephen Butler
Ann Cullinane
Prof. Michael Doherty
Dr Evelyn Doyle
Prof. Marie Guidon
Prof. Des Higgins

Dr Colin Kelleher
Prof. Mary Kelly-Quinn ★ 1976
Dr Eoin Lettice
Prof. Grace McCormack
Prof. Deirdre McGrath
Dr John Monahan ★ 1965
Prof. Niall Moyna

Dr Tadhg O Croinin
Dr Richard O Hanlon
Prof. John O'Halloran
Prof. Donal O'Shea
Dr Kathy Oboyle
Prof. John Quinn
Dr Fiona Wilson

Social & Behavioural Sciences

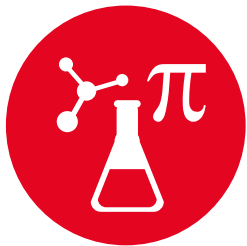


Siobhan Aherne
Prof. Joe Barry
Dr Barry Brunt
Dr Mairin Boland
Annette Cahalane
Dr Helen Connaughton
Dr Tara Cusack
Dr Jean Cushen
Conor Faughnan

Dr Yseult Freeney
Dr Jones Irwin
Dr Angela Leahy
Eoin MacCuirc
Dr Maeve Martin
Prof. Des McCafferty
Michelle McCarthy-Severs
Lynda McSweeney
Dr Elizabeth Nixon

Dr Eoin O'Mahony
Ian Robertson
Aidan Ryan
David Silke
Dr Victoria Simms
Dr Sinead Smyth
Prof. Anthony Staines

Chemical, Physical & Mathematical Sciences



Prof. Stephen Connon
Prof. Sean Corish
Prof. Pdraig Dunne
Prof. Orla Feely
Prof. Claire Gormley
Prof. Pat Guiry

Dr Graeme Horley
Prof. Peter Lynch
Dr Michael McGrath
Prof. Ronan McNulty ★ 1985
Dr Maria Meehan
Dr Martina Nolan-Jones

Dr Fergal O'Reilly
Dr Rachel Quinlan
Dr Tony Scott
Prof. Emma Sokell

Technology



Julie Byrne
Bernie Capraro
Prof. Sarah Jane Delany
Prof. Linda Doyle
Prof. John Dunnion
Leonard Hobbs

Barry Kennedy
Noel King
Dr Helen McBreen
Aaron McCormack
Dr Diarmuid O'Brien
Tom O'Dwyer

Brian O'Mara
Ann O'Sullivan
Julie Spillane
Dr Peter Taylor ★ 2001
Anna-Marie Turley

BT Chairperson

Ruth Murphy

Special Awards Chairperson

Professor Eoin O'Neill

★ Young Scientist of the Year past winner

2019 Project Quick Search

Project category

Biological and
Ecological Sciences

1100 - 1617

Social and Behavioural
Sciences

2100 - 2714

Chemical, Physical and
Mathematical Sciences

3100 - 3608

Technology

4101 - 4611

School name/County

Antrim

South Eastern Regional College - Lisburn	1617
St Dominic's High School	1403
St Killian's College	4519
St Louis Grammar School	4216

Armagh

St Catherine's College	4413
------------------------	------

Carlow

Presentation College	1212
St Mary's Knockbeg College	2700

Cavan

Colaiste Dun an Ri	1407, 1410, 2104, 2109 2406, 2419, 3108
Loreto College	2538, 2558
St Bricin's Vocational School	2559

Clare

Coláiste Mhuire Ennis	1108
Mary Immaculate Secondary School Lisdoonvarna	1101, 1205, 1209, 1405, 4203
Scoil Mhuire	2705
St Anne's Community College	2590
St Flannan's College	4213, 4307
St John Bosco Community College	1214
St. Joseph's Secondary School	3506, 3537, 4539

Cork

ArdSCOIL Uí Urmoltaigh	4524, 4531
Bandon Grammar School	2572, 2586, 2599, 3209
Boherbue Comprehensive School	2587
Carrigaline Community School	1215, 1573, 4106
Christ King Girls Secondary School	1103, 1607, 2111, 4206
Christian Brothers Secondary School	1551, 2107, 4406

Clonakilty Community College	1508, 2505, 4604
Coachford College	2421
Coláiste an Chraoibhin	3214
Coláiste An Spioraid Naoimh	1536, 2300, 2401, 2408 2531, 4304, 4401
Coláiste Choilm	1500, 1514, 1519, 1524, 1527 1541, 1545, 1571, 2504, 2521, 2562, 2582, 3301, 3315, 4202, 4218, 4506
Coláiste Muire Crosshaven	1311, 1510, 2200, 2206, 2217
Coláiste Na Toirbhirte	1574
Coláiste Pobal Bheanntair	1529, 1531, 1569, 1572, 2570
Colaiste Treasa	1501, 2100, 2403, 2407, 2527
Gaelcholáiste Charraig Uí Leighin	1503
Gaelcholáiste Mhuire	3534
Kinsale Community School	1412, 2102, 2405, 2417 2512, 3312, 4417
Loreto Secondary School Fermoy	2571, 4215
Maria Immaculata Community College	2583
Midleton College	1550, 4515, 4542
Millstreet Community School	1540, 1542, 2529 2540, 2573, 3523
Mount Mercy College	1301, 1408, 1558 1564, 2557, 3303
Mount St Michael	1577, 4544
North Monastery Secondary School	4415, 4518 4529, 4606, 4609
Patrician Academy	1513, 1525
Pobalscoil na Tríonóide	4530
Presentation Secondary School Mitchelstown	1511, 2501 2534, 2543, 2551
Sacred Heart Secondary School	1552, 1563, 2528 2537, 2569
Schull Community College	1549, 1555, 2549
Scoil Mhuire	1611, 2530



School name/County

Scoil Mhuire gan Smál Blarney	2103, 2410, 3305
Scoil Mhuire Kanturk	2589, 3316
Scoil na mBráithre Chríostaí	4404
Skibbereen Community School	2574
St Aloysius College Carrigtwohill	1561, 2568, 2575 3213, 3524, 3532, 4303
St Aloysius School	3206
St Francis Capuchin College	2593
St Mary's High School	2506, 2517, 3510
St Mary's Secondary School	1210, 1406, 1567, 2502
St. Angela's College	4300
St. Brogan's College	4407
Ursuline Secondary School	2596

Donegal

Carndonagh Community School	3107
Coláiste Ailigh	1110, 1310, 1414, 2203 3112, 3402, 4102
Deele College	2709
Loreto Community School	1413, 1518
Magh Ene College	3531, 3606
Pobalscoil Ghaoth Dobhair	2533, 2577, 3521 3604, 4510
Rosses Community School	2536
Scoil Mhuire	1568
St Eunan's College	4217

Down

Regent House School	3314, 3605
South Eastern Regional College - Bangor Campus	1306 1600, 1610

Dublin

Alexandra College	3307
Ardgillan Community College	3516
Belvedere College	1107, 4100
Blackrock College	2422, 3308, 4104
Cabinteely Community School	2711
Castleknock College	4101, 4405, 4522
Coláiste Chillian	1208
Coláiste Eoin	1509, 2595, 3519
Coláiste Iosagáin	1200, 2207, 4507
Coláiste Phádraig	2701, 3104, 3313, 3601 4535, 4600, 4605

Colaiste Pobail Setanta	2704
Dominican College	2552
Gaelcholáiste an Phiarsaigh	1416
Gonzaga College	4302
Kingswood Community College	4103
Kishoge Community College	1401, 4602
Le Chéile Secondary School	2580
Loreto Abbey Secondary School	2598, 3536
Loreto College	2211, 2414, 3103, 3302
Loreto High School	1502, 1516, 2519, 3511
Loreto Secondary School, Balbriggan	1213, 1216, 1576 2713, 3529, 3533
Lucan Community College	2567, 2708
Muckross Park College	2546, 4306
Pobalscoil Iosolde	1105, 3208, 4204
Pobalscoil Neasain	1400, 2515, 3513
Portmarnock Community School	1602, 1606
Rathdown School	2594
Ringsend College	2411
Saint Dominic's Secondary School	4403
Sandford Park School Ltd	3508
Santa Sabina Dominican College	1418, 3535, 4540
Skerries Community College	3306, 3318
St Andrew's College	1111, 1302, 1305, 3100, 3110
St Joseph's College	3215
St Joseph's Secondary School	1560, 2218, 2412, 2600 2603, 4205, 4528
St Louis High School	2409, 3528
St Marys College - C.S.Sp.	2215, 4536
St Mary's Secondary School	2105
St Michaels College	1204, 3515
St. Fintan's High School	1520, 2544
St. Kilian's German School	3403
Sutton Park School	1203
Synge Street CBS	3304, 3404, 3522
Templeogue College	1548
Terenure College	1609, 3526
The Institute of Education - Dublin	1601
The Kings Hospital	1616, 2418
Wesley College	3603

2019 Project Quick Search

School name/County

Galway

Calasactius College	4301
Clarín College Athenry	4201
Coláiste Bhaile Chláir	4418, 4603
Coláiste Iognáid S.J.	1409, 1417, 1615, 4212
Coláiste Mhuire	1554
Portumna Community School	2420, 3608
Presentation College	2588, 3102
Seamount College	2578
St Raphaels College	1303, 1307, 2404
St. Mary's College	1613, 2301, 2415, 2561, 4211

Kerry

C.B.S. Secondary School	2702
Coláiste na Sceilge	1535
Gaelcholáiste Chiarraí	2710
Killorglin Community College	1300, 2216, 4607, 4611
Presentation Secondary School, Castleisland	2602
Mercy Secondary School	1539, 4209, 4505, 4610
Pobalscoil Inbhear Scéine	3502
St. Brigid's Secondary School	1608
Tarbert Comprehensive School	1532, 1533

Kildare

Coláiste Lorcáin	3105
Coláiste Naomh Mhuire	1523, 1526
Cross And Passion College	3407
Maynooth Education Campus	4105
Naas Community College	3600
Newbridge College	1109
Scoil Mhuire Community School	1202

Kilkenny

Castlecomer Community School	1530, 2209, 2706
Coláiste Eamann Rís	1553, 4527
Coláiste Pobal Osraí	1404
Loreto Secondary School	1547, 2518, 2524, 2585, 3505
St Kieran's College	1537

Laois

Heywood Community School	1207, 1605, 2106 2400, 3607
--------------------------	--------------------------------

Portlaoise College	1543
--------------------	------

Leitrim

Mohill Community College	2592
St. Clare's Comprehensive School	1304

Limerick

Ardscoil Ris	2508, 2525, 4214, 4503
Castletroy College	2541, 3207
Coláiste Chiaráin	3203, 3204, 4520
Coláiste Íosaef	1505, 2507, 4219
Colaiste Nano Nagle	2563, 4545, 4546
Desmond College	1515, 1603, 2214, 3400, 3408 4200, 4501

Gaelcholáiste Luimnigh	1507, 1565, 2413
John The Baptist Community School	2208, 2500, 2510 2526, 2539, 2566

Laurel Hill Secondary School FCJ	1538
Salesian Secondary College, Pallaskenry	1106, 1575, 2219 2576, 2591, 4400, 4511, 4537
Scoil Mhuire agus Íde	2565, 4504
St Munchin's College	1415

Londonderry

Loreto College Coleraine	3205, 3211, 3310, 3520
St Mary's College	1517, 3111, 3202, 3212 3504, 3507, 3514
St Mary's Gs	4601

Longford

Ballymahon Vocational School	2554, 4525
Cnoc Mhuire	2601
Lanesboro Community College	1312, 2108, 2213
Moyne Community School	2110

Louth

Bush Post Primary School	1521, 2511, 2516, 3509
Dundalk Grammar School	3109
Our Ladys College	1308, 3210
St Mary's Diocesan School	1522
St Vincent's Secondary School	2520, 2532, 3401

Mayo

Colaiste Chomain	2555
------------------	------



2019

School name/County

Coláiste Pobail Acla	4533
St. Mary's Secondary School	1562

Meath

Ashbourne Community School	2112
Eureka Secondary School	1504, 1557, 2560
Franciscan College	3309
Scoil Mhuire	2304
St Patrick's Classical School	4410

Monaghan

Our Lady's Secondary School	2522
Patrician High School	2550
St. Louis Secondary School	2564

Offaly

Colaiste Choilm	2302, 4207
St. Brendan's Community School	2503
Tullamore College	1570, 3201

Roscommon

C.B.S. Roscommon	1544, 1559, 2201, 3512, 3518
Castlerea Community School	1211
Scoil Mhuire gan Smál	2205, 2604, 2703
Scoil Mhuire Strokestown	2416, 2542
St Nathy's College	1402, 2101

Sligo

Ballinode College	2714
Jesus & Mary Secondary School	3200
Ursuline College	3517, 3525, 3602, 4500, 4514, 4517

Tipperary

C.B.S. Thurles	2305, 4543
Cistercian College	2581
Coláiste Mhuire Co-Ed	3405
Colaiste Phobáil Rós Cré	2712
Comeragh College	2553, 3527
Presentation Secondary School	2303, 2556
St Joseph's College	4402, 4409, 4414, 4608
Ursuline Secondary School	2579, 4526

Tyrone

Holy Cross College	3317
--------------------	------

St Ciaran's High School	4412, 4509
-------------------------	------------

Waterford

Ard Scoil Na Mara	1201, 2402
Blackwater Community School	2523
Gaelcholáiste Phort Láirge	1534
St Angela's	1206, 3530

Westmeath

Athlone Community College	2548, 3500, 4502, 4508
Colaiste Mhuire	1556, 2547, 2597, 4208, 4308, 4408, 4411, 4521
Marist College	3106
Meán Scoil an Chlochair	2210, 2513, 2545
Moate Community School	1546, 1604, 4532
Our Lady's Bower	1411, 1612, 4416, 4516
St Joseph's Secondary School	1566, 4534

Wexford

Creagh College	3406, 4512
F.C.J. Secondary School	4210
Meanscoil Gharman	1614, 2220, 2514, 4541

Wicklow

Avondale Community College	1102, 3300
Coláiste Chill Mhantain	1100
Dominican College	2535
Gaelcholaiste Na Mara	2584
Presentation College	1506
St Gerard's	1104, 3101
St Marys College	1309, 1512, 2204, 2212, 4523

PROJECT QUICK SEARCH IS ALSO
AVAILABLE ON OUR APP...



Download on the
App Store



GET IT ON
Google Play



Biological & Ecological Sciences

JUNIOR INDIVIDUAL

1100

Title: Will Hydroxymethylfurfuraldehyde (HMF) Levels in Honey Affect: 1) The Quality of Honey and 2) Effects of the Honey on Human Health
Overview: I will test for Hydroxymethylfurfuraldehyde levels in honey and see does it affect the quality of honey and/or human health.
School: Coláiste Chill Mhantain
County: Wicklow
Teacher: Natasha Smyth
Student(s): Rían Byrne

1101

Title: Evaluation of the use of software as a tool to count populations of different shellfish on seashores
Overview: I am looking at how effective it is to use ImageJ for studying populations of different shellfish on a shore.
School: Mary Immaculate Secondary School Lisdoonvarna
County: Clare
Teacher: John Sims
Student(s): Maeve McMahon

1102

Title: Are dairy farmers wasting money on footbath solutions?
Overview: Farmers spend a lot of money on hoof care. Living on a dairy farm I would love to find a cheaper way of maintaining hooves.
School: Avondale Community College
County: Wicklow
Teacher: Louise Bell
Student(s): Aisling Byrne

1103

Title: Study on the pollution in Tramore Valley Park and the impact on the plants there
Overview: My project is about the pollution from the roads and old landfill of the Kinsale road on Tramore Valley Park and its plants.
School: Christ King Girls Secondary School
County: Cork
Teacher: Julia White
Student(s): Jane Scanlan

1104

Title: To investigate the incidence and impact of microplastics on Irish farms
Overview: I aim to investigate the incidence of plastics due to current farming practices on farms and assess their breakdown into microplastics through analysis of soil and other samples.
School: St Gerard's
County: Wicklow
Teacher: John Reidy
Student(s): Amelie Moore

1105

Title: Examining the Effect of Caffeine on the Larvae of Soldier Black Flies.
Overview: Investigating the effect

of dosing larvae with a number of caffeine solutions to see if they prevent the hatching of larvae.
School: Pobailscoil Iosolde
County: Dublin
Teacher: Lynda Jordan
Student(s): Amelia Andrews

1106

Title: Detecting the departure of a Queen Bee from a hive.
Overview: My project aims to build a system consisting of a sensor that targets the Queen Bee and alerts the beekeeper if she leaves the hive.
School: Salesian Secondary College, Pallaskenry
County: Limerick
Teacher: John O'Flynn
Student(s): Katie Smith

1107

Title: Amplified Renewable bioelectrical energy in Reduced Carbon Footprint Livestock Waste Treatment System
Overview: Create Livestock Waste System with a usable renewable power source, amplifying bio-electrical energy from anaerobic bacteria, clean water, and reducing organic waste.
School: Belvedere College
County: Dublin
Teacher: Thomas Morris
Student(s): Garret Molloy

1108

Title: Kefir & Kombucha: The Alcohol Content, Microbial Content and Health Benefits of Fermented Drinks
Overview: Carrying out a qualitative and quantitative test for alcohol on shop bought and home made fermented drinks. A bacterial analysis of both and health effects survey.
School: Coláiste Mhuire Ennis
County: Clare
Teacher: Olivia Keane
Student(s): Jennifer Weston

1109

Title: Compostable packaging and food safety
Overview: A comparison of compostable and non-compostable packaging. To discover which keeps food preserved for longer. To investigate the rate of decomposition of compostable packaging.
School: Newbridge College
County: Kildare
Teacher: Dermot Walsh
Student(s): Ryan Sexton

1110

Title: Staidéar Eiceolaíochta agus Bitheolaíochta den abhainn Súileach
Overview: To carry out an ecological and biological study of the river and assess its potential for developing a walkway for tourism and the community.
School: Coláiste Ailigh

County: Donegal
Teacher: Micheál Ó Giobúin
Student(s): Cormac Mulrain

1111

Title: How the different stages of grass growth affect the content of milk
Overview: My project aims to find out which stages of grass affects the protein and fat content in milk.
School: St Andrew's College
County: Dublin
Teacher: Emma Buckley
Student(s): Daniel Crampton

INTERMEDIATE INDIVIDUAL

1200

Title: Staidéar comparáideach ar thruaillíú micreaphlaistigh i bhfoinsí uisce éagsúla timpeall na hÉireann
Overview: An aidhm atá ag mo thionscnamh ná anailís a dhéanamh ar an méid micreaphlaistigh atá le fáil i bhfoinsí uisce timpeall na hÉireann chun méid an damáiste a thomhas.
School: Coláiste Iosagáin
County: Dublin
Teacher: Karen Nic Aoidh
Student(s): Jenni-Rose Ní Éideáin

1201

Title: A Light Meal: An investigation of the impact of varying light levels on plant growth for sustainable vertical farming
Overview: Time-varying LED light levels are used in growing various plants to reduce the carbon footprint and economic cost of future vertical farming.
School: Ard Scoil Na Mara
County: Waterford
Teacher: Niamh Shannon
Student(s): Caoimhín O'Leary

1202

Title: Examining plant selection to improve the biodiversity of reed beds/ integrated constructed wetlands to attract pollinators.
Overview: This project will investigate Integrated Constructed Wetlands in the treatment of effluent & what flowering plants can be used to increase these habitats for pollinators.
School: Scoil Mhuire Community School
County: Kildare
Teacher: Helena Lynn
Student(s): Adam McNulty

1203

Title: A New Fire-Proof System For Tall Buildings Using Tree Bark
Overview: I am looking to create a new fire-proof cladding system for tall buildings using the bark from trees.
School: Sutton Park School
County: Dublin
Teacher: Karen Lynch
Student(s): Ava Casey

1204

Title: Bacteria & Their Effect on Crude Oil
Overview: I want to investigate the bacteria that are responsible for breaking down oil when it spills and see if they can be isolated and used.
School: St Michaels College
County: Dublin
Teacher: Roisin Weldon
Student(s): Conán Hargaden

1205

Title: An examination of ash die back in the ash trees in an area of the Burren.
Overview: I am looking at the profile of ash trees with ash die back in an area of the Burren and comparing them with uninfected trees.
School: Mary Immaculate Secondary School Lisdoonvarna
County: Clare
Teacher: John Sims
Student(s): Róisín McNamara

1206

Title: High Intensity Interval Training
Overview: To prove that high intensity interval training increases VO2 max, reduces blood pressure and increases overall fitness during a duration of 6 weeks.
School: St Angela's
County: Waterford
Teacher: Aoife Maher
Student(s): Anna Duffin

1207

Title: Less is better.
Overview: To determine whether it is more beneficial for you to run one thirty minute run or three ten minute runs a week.
School: Heywood Community School
County: Laois
Teacher: Aodhagan O Suilleabhain
Student(s): Evan Hogg

1208

Title: 'Ag baint ó Mhánas chun Murchadh a íoc'. Conas caomhnú uisce níos fearr a dhéanamh.
Overview: Tá atchurasáil tábhachtach dár timpeallacht ach cé mhead uisce a cuireamar amú nuair a ghlannamar plaisteach chun an athchursáil sin a dhéanamh.
School: Coláiste Chilliaín
County: Dublin
Teacher: Doireann De Nógla
Student(s): Jo-Ellen Ní Dhonechú

1209

Title: A tale of two soils - a comparative study of upland and lowland soils in the Burren
Overview: I am examining the chemical and physical properties of upland and lowland soils in the Burren as well as the macrofauna in them.
School: Mary Immaculate Secondary School Lisdoonvarna
County: Clare



Teacher: John Sims
Student(s): Sarah McNamara

1210

Title: Do Farms in Ireland Contain Micro Plastics
Overview: My aim is to examine two different farms and examine the meal and water samples to see do they contain microplastics. I'll research the effect these microplastics could have on animals.

School: St Mary's Secondary School
County: Cork
Teacher: Shannen Foley
Student(s): Maria Cronin

1211

Title: Why are we not wearing protective head gear in sports?
Overview: Why we are we not wearing protective head gear in sport as injuries are still happening.

School: Castlerea Community School
County: Roscommon
Teacher: Pauline Dervin
Student(s): James Beatty

1212

Title: Aerosol Collection for GLOBE
Overview: Use the Calitoo instrument to calculate AOT measurements and input data to GLOBE database. Collaborate information with satellites. Compare AOTs with Israel and America.

School: Presentation College
County: Carlow
Teacher: Katherina Kinsella
Student(s): Sean O Driscoll

1213

Title: An investigation into the growth response of the pismus savitum's roots towards different acoustics and whether noise pollution affects plants

Overview: Throughout my project, I plan to observe reaction of the pismus savitum plant when exposed to different sounds (including sound of water), frequencies and volumes.
School: Loreto Secondary School, Balbriggan
County: Dublin
Teacher: Niamh Mc Nally
Student(s): Iman Khan

1214

Title: What is the effect of music on systolic and diastolic blood pressure during and after listening?

Overview: My project aims to examine if a person's blood pressure is affected as they are listening to different genres and types of music.
School: St John Bosco Community College
County: Clare
Teacher: Margaret Walsh
Student(s): Donnacha Ralph

1215

Title: Can You React in Time
Overview: My project aims at

investigating the reaction time when on a cell phone conversation and listening to music.
School: Carrigaline Community School
County: Cork
Teacher: Steven Corbett
Student(s): Jennifer O Sullivan

1216

Title: An Investigation into the Effect of a Farmer's Attitude Towards Nature on the Biodiversity of the Soil on their Farm.
Overview: I will investigate the link between a farmer's attitude and the biodiversity of the soil on their farms in Ireland.

School: Loreto Secondary School, Balbriggan
County: Dublin
Teacher: Niamh Mc Nally
Student(s): Selina Xu

SENIOR INDIVIDUAL

1300

Title: A systematic study into using halophyte species to develop a nutrient treatment biofilter to combat oceanic deadzones.

Overview: The development of semi-submerged systems which extract nitrogen and phosphorus from saline water using a halophyte plant ecosystem to be used to combat deadzones.

School: Killorglin Community College
County: Kerry
Teacher: Marieke O'Connor
Student(s): Timothy McGrath

1301

Title: Difference in the dietary habits of teenagers with and without sugar cravings

Overview: I am creating a survey to observe and analyse the differences in dietary habits of people craving for sugar and people neutral to sugary foods.

School: Mount Mercy College
County: Cork
Teacher: Aaron O'Sullivan
Student(s): Viktoriya Kharoshankaya

1302

Title: Discovery of the Ideal Microenvironment for the Differentiation of hiPSCs into Islets of Langerhans

Overview: This project aims to determine which microenvironment is best for the differentiation of hiPSCs into Islets, in terms of soluble factors, cell receptors and ECM proteins.

School: St Andrew's College
County: Dublin
Teacher: Hilary Rimbi
Student(s): Yasmin Ryan

1303

Title: The Effect of Coconut on Barley
Overview: I will be exploring the effect that coconut has on barley plants in relation to response to drought.

School: St Raphaels College
County: Galway
Teacher: Brenda O'Dea
Student(s): Miriam Kennedy

1304

Title: A Two Year Analysis of the Clinical Relationship between Calcium Ion, Vitamin D Levels and DEXA Scans in the Human Anatomy.

Overview: Firstly I established calcium levels in adults, secondly I investigated the awareness of Osteoporosis in secondary schools. Lastly I investigated the relationship between calcium and vitamin D.

School: St. Clare's Comprehensive School
County: Leitrim
Teacher: Edel McPhelim
Student(s): Rachel Mc Partlin

1305

Title: Can we make mealworms eat more plastic?

Overview: I plan to investigate the ability of mealworms to digest polythene and polystyrene under different conditions of temperature, plastic size, light/dark cycle and food supplement.

School: St Andrew's College
County: Dublin
Teacher: Hilary Rimbi
Student(s): Isabel Schmidt

1306

Title: Investigation into the growth of algae for bio-fuel use.

Overview: Investigating how different fertilisers affect algae growth. The growth will be measured by a colorimeter and haemocytometer. The algae will be grown in a bio-reactor.

School: South Eastern Regional College - Bangor Campus
County: Down
Teacher: Michael Holmes
Student(s): Jordan Stafford

1307

Title: MagicMilk - The Impact of breastfeeding on early infancy health status

Overview: The aim of my project is to study the effects on immune response and long-term health of breastfed and formula fed children.

School: St Raphaels College
County: Galway
Teacher: Elaine Lawless
Student(s): Mia Joyce

1308

Title: Lives without Mental Imagery

Overview: This research is an investigation into a condition called aphantasia. Though it was recognized more than 100 years ago, further research has been carried out on this topic. In recent years Professor Adam Zeman of Exeter University has undertaken research and he believes that people with aphantasia may be able to form visual images but may

not have conscious access to them.

School: Our Ladys College
County: Louth
Teacher: Frances O'Regan
Student(s): Laura lleogben

1309

Title: Children with autism cannot wait

Overview: An analysis of assessment waiting times, age of diagnosis and provision of services for autism spectrum disorder children in Ireland.

School: St Marys College
County: Wicklow
Teacher: Joanne English
Student(s): Ella Devereux

1311

Title: The effects of heavy rainfall on plastic pollution in the ocean

Overview: The aim of my project is to investigate and do my own experiment on the link between rainfall and increase in plastic pollution in the ocean.

School: Coláiste Muire Crosshaven
County: Cork
Teacher: Bridget Lehane
Student(s): Olivia Gavin

1312

Title: Counting the Carbon Dioxide Cost of Our Diets: Designing a model to quantify effects of our diets on CO₂ emissions.

Overview: To research and design a model that can be used to quantify the effects of various diets on our carbon dioxide emissions.

School: Lanesboro Community College
County: Longford
Teacher: Michael Lyons
Student(s): Leah Farrell

JUNIOR GROUP

1400

Title: A Biological investigation into the antimicrobial properties of the proteolytic enzyme bromelain found in pineapples

Overview: We will be comparing the antimicrobial properties of pineapple extract with other juice extracts (grape, apple/grapefruit/orange) that DO NOT contain the enzyme bromelain.

School: Pobalscoil Neasain
County: Dublin
Teacher: Gemma Buicke
Student(s): Elias Rode, Kacper Kolakowski, Arturs Araj

1401

Title: Irish Bee Diversity App

Overview: We will create an app that will help people/scientists identify bees. It will also contain information about the threats to bees and how to make life easier for them.

School: Kishoge Community College
County: Dublin
Teacher: Mary Gorman



Biological & Ecological Sciences

Student(s): Sophianne Connolly, Aqlan Ardy, Japnitt Singh

1402

Title: Changing Tastes

Overview: By preparing a wide range of concentration of sweet, sour, bitter and salty, we will investigate how taste changes with age, gender and health.

School: St Nathy's College

County: Roscommon

Teacher: Oonagh Redmond

Student(s): Ella Coleman, Grace Sharkey, Anna Cox-Kenny

1403

Title: Could Nutraceuticals Stop Cancer?

Overview: Which nutraceuticals (spices: chili powder, turmeric, paprika, garlic and ginger) could stop cell growth in yeast which could potentially stop cancer cells from growing.

School: St Dominic's High School

County: Antrim

Teacher: Conor Waters

Student(s): Catherine Walsh, Cara McFadden, Sophie McGregor

1404

Title: Imscrúdú ar éifeachtúlacht Cuileann ar an borrhéist Trichophyton verruscom

Overview: Tá breathnúchán déanta ag feirmeoirí go réitíonn cuileann fadhbanna le borrhéist i mbeithigh i sciobóil. Táimid chun éifeachtúlacht an leighis seo a iniúcadh sa saotharlann.

School: Coláiste Pobal Osraí

County: Kilkenny

Teacher: Lughaidh Ó Néill

Student(s): Pádraig Ó hOldain, Bo Connery Butler

1405

Title: Snail communities in three habitat types in the Burren

Overview: We are looking at the number and population structure of four species of snail in three different habitats in the Burren.

School: Mary Immaculate Secondary School Lisdoonvarna

County: Clare

Teacher: John Sims

Student(s): Leah McNamara, Jessica O'Donohue

1406

Title: An investigation into the translocation of Geomolacus Maculosus in the Macroom area

Overview: We will investigate the new habitat of Geomolacus Maculosus following it's translocation to facilitate the development of the N22 bypass.

School: St Mary's Secondary School

County: Cork

Teacher: Jennifer Butler

Student(s): Aine Sheehan, Nadia Sliwa, Sophie McCrory

1407

Title: Chicken Feather Insulation

Overview: An investigation into the insulation properties of chicken feathers.

School: Colaiste Dun an Rí

County: Cavan

Teacher: Lorraine Marron

Student(s): Freya Watterson, Alannah Clarke, Lauren McCabe

1408

Title: Identification of plant extracts and oils as insect repellents

Overview: To investigate the use of plant extracts and oils as a repellent for pests instead of chemical pesticide.

School: Mount Mercy College

County: Cork

Teacher: Aaron O'Sullivan

Student(s): Eneyal Sivakumar, Maria Vieira, Chloe Doyle

1409

Title: PAWS-itively Dangerous - Antibiotic Resistance

Overview: Consider the levels of antibiotic resistance bacteria in our companion animals and the potential risks posed to human health. Trojan pets and superbugs.

School: Coláiste Iognáid S.J.

County: Galway

Teacher: Clodagh Mitchell

Student(s): Aoibhe Briscoe, Ellie Concannon, Kate Owens

1410

Title: An Ecological Investigation into Dún an Rí Forest Park, Kingscourt, Co. Cavan

Overview: Our project investigates the high prevalence of millipedes, beetles, robins and blue-tits in Dún an Rí Forest Park, Kingscourt, Co. Cavan.

School: Colaiste Dun an Rí

County: Cavan

Teacher: Michelle Hough

Student(s): Ilona Mc Carthy, Caoimhe Byrne, Éabha Garvey

1411

Title: Move Over Manuka! – Irish Heather Honey means BuZZness

Overview: This project is to see if Manuka Honey and Irish Heather Honey made in different locations in Ireland, is effective at killing different types of bacteria.

School: Our Lady's Bower

County: Westmeath

Teacher: Ellen Maguire

Student(s): Hannah Duffy, Niamh Jordan

1412

Title: An investigation into the effects of soil compaction on autumn carbon sequestration in grassland soils.

Overview: Atmospheric CO₂ causes climate change. We aim to find out if grassland soil compacted by heavy cattle and tractors are worse at sequestering carbon.

School: Kinsale Community School

County: Cork

Teacher: Shaun Holly

Student(s): Laoise O' Mahony, Orla Good

1413

Title: Yummy plastic filled wormies: An investigation into the environmental impact of micro-plastic exposure on the growth rate and mortality of the humble earthworm.

Overview: The project aim is to investigate the effects in growth and mortality rates of earthworms, (Eisenia fetida), upon continuous exposure to LD-PE micro-plastics.

School: Loreto Community School

County: Donegal

Teacher: Roisin Coyle

Student(s): Oisín Farrell, Thomas Cannon

1414

Title: Imscrúdú ar an Éifeacht atá ag Turmeiric ar an Córas Imdhianach i rith Seasúir an Slaghdán

Overview: Imscrúdú ar cé chomh éifeachtach agus atá Turmeiric ar an dóchúlacht go gheobhaidh duine slaghdán i rith seasúir an slaghdán.

School: Coláiste Ailigh

County: Donegal

Teacher: Siobhán Ní Laighneach

Student(s): Ella Ní Ghallachóir, Iseult Ní Mhathúna, Aisling Rodriguez

1415

Title: The impact of diet and exercise on BMI in secondary students in Ireland

Overview: The aim of the project was to investigate the effect of diet and exercise on secondary students BMI body fat.

School: St Munchin's College

County: Limerick

Teacher: Bairbre Ní Fhlatharta

Student(s): Nathaniel Zabetakis, Darragh Hanly, Rory Butler

1416

Title: An Éifeacht A Bhíonn Ar Teocht Ón Láithreach Agús Iompraíocht Ar Baictéir Sna Aibhneacha Agus Sruithléann Áitiúil.

Overview: Sa thionscadail seo táimid chun fáil amach an chaoi ina mbíonn éifeacht ar an láithreach baictéir agus a chuid iompar de bharr teocht an t-uisce

School: Gaelcholáiste an Phiarsaigh

County: Dublin

Teacher: Nora De Blaca

Student(s): Dearbhla Ní Chlúmháin, Fern Ní Chathasaigh, Eilís Ní Dheagha

1417

Title: Can Scientists Tame the Lion's Mane?

Overview: We aim to research the recent increase in numbers of Lion's Mane jellyfish off Galway Bay and investigate their positive effects to the medical world.

School: Coláiste Iognáid S.J.

County: Galway

Teacher: Eimear Hennelly

Student(s): Ailbe Dooley, Aoife Waldron

1418

Title: An Investigation into Making Food Waste into Bioplastic for Everyday Use

Overview: We aim to develop a sustainable means of producing bioplastics from school waste with a view of producing sufficient materials to manufacture canteen utensils.

School: Santa Sabina Dominican College

County: Dublin

Teacher: Paul Nugent

Student(s): Aoife McMahon, Rachel Ingle

INTERMEDIATE GROUP

1500

Title: Text Neck: The Effects of Phone Usage on Neck Tension

Overview: Our project is about how the angle at which we look at our phone screens affects the tension in our neck.

School: Coláiste Choilm

County: Cork

Teacher: Paudie Scanlon

Student(s): Michelle Mc Carthy, Éabha Sheehan, Greta Fleming

1501

Title: Reducing Toxic Heavy Metals in the Global Food Chain

Overview: This project investigates the viability of using F113/MB004 Pseudomonas Fluorescens and L228/L321/L111 Pseudomonas Fluorescens to reduce levels of heavy metals in the global food chain.

School: Colaiste Treasa

County: Cork

Teacher: Joanne Corkery

Student(s): David Grey, Cillian O Sullivan

1502

Title: Trouble "aHead" for Hockey?

An investigation into the incidence of head injuries in hockey.

Overview: Investigating the vulnerability of the cranium and the risk of suffering head injuries in hockey in comparison to hurling/camogie. Should hockey players wear helmets?

School: Loreto High School

County: Dublin

Teacher: Angela Benson

Student(s): Amelia Daly, Anna Brophy

1503

Title: An Éifeacht a Bhíonn ag d'Aiste Bia ar Fás agus Láidearacht d'Ingne.

Overview: Táimid chun staidear a dhéanamh ar an éifeacht a bhíonn ag d'aiste bia ar fás agus láidearacht d'ingne agus do ghruaige.

School: Gaelcholáiste Charraig Uí Leighin



County: Cork

Teacher: Niamh Furlong

Student(s): Anna Feenan,
Leah Nic Cárthaigh,
Sarah Ní Mhuirgheasa

1504

Title: Thumbs Up: A Scientific Investigation into Texting Style and its Relationship with Finger Strength, and Frequency or Increase in Localized Pain
Overview: We aim to explore how texting style can affect digit strength and increase risk of localized pain and pins and needles in the upper limbs.

School: Eureka Secondary School

County: Meath

Teacher: Mary Wright

Student(s): Ruth Smyth,
Katie Conachy, Emma-Jane McKeon

1505

Title: The Adverse Effects And Warning Signs Of Crohn's Disease

Overview: We aim to investigate people's level of knowledge on Crohn's disease and to inform them of it's adverse effects and possible causes.

School: Coláiste Iósaeif

County: Limerick

Teacher: Brian Clarke

Student(s): Brendan Mc Kiernan,
Cathal Clerly

1506

Title: Blue is the New Green: The feasibility and possible application of water harvesting in Irish schools

Overview: Investigation of the feasibility and potential application of rainwater harvesting in Presentation College Bray and other schools in our area.

School: Presentation College

County: Wicklow

Teacher: Stuart Hannon

Student(s): Rory Mulcahy,
Killian Bourke,

1507

Title: Anti-Antibiotics!: Staidéar ar úsáid antaibheathaigh i gContae an Chláir / A study on the use of antibiotics in County Clare

Overview: A model is developed to represent the consumption of antibiotics in Co. Clare; analysis will be completed to find opportunities for more efficient antibiotic use.

School: Gaelcholáiste Luimnigh

County: Limerick

Teacher: Maria Kennelly

Student(s): Seoda Ní Chaoimh,
Muireann Ní Shé

1508

Title: Home to Roost, A study to assess the high tide roosting routines of waterbirds and future Conservation Applications.

Overview: We aim to investigate factors affecting formation of high tide roosts by Oyster catchers and develop a format to assess other roosts in the same way.

School: Clonakilty Community College

County: Cork

Teacher: Patrick O Keeffe

Student(s): Conor O'Flynn,
Jack Deasy, Lorcan O' Leary

1509

Title: Codladh agus Cumas Aclaíochta i Déagóirí

Overview: An tionchar a bhíonn ag an méid codlata a fhaigheann déagóir ar an gcumas aclaíochta atá acu.

School: Coláiste Eoin

County: Dublin

Teacher: Cionnaith Ó Dubhthaigh

Student(s): Peadar Breathnach,
Donal Ó Nualláin, Alex Binley

1510

Title: From fish to fork - ingestion of microplastics by commercial fish off the Irish South Coast

Overview: We propose to compare the amount of microplastics found in various fish species from the south-west Cork coast and identify visually using a light microscope.

School: Coláiste Muire Crosshaven

County: Cork

Teacher: Bridget Lehane

Student(s): Rachel Cotter,
Jack Mullen

1511

Title: Squeeze the Stress Away - Do Stress Balls Actually Work?

Overview: We will investigate what effect stress balls have on people's stress levels and what effect regular use of a stress ball has on stress.

School: Presentation Secondary School Mitchelstown

County: Cork

Teacher: Julie Hanlon

Student(s): Natalia Nowak,
Cora O'Sullivan, Karina Rest

1512

Title: Rounding up the bees: Is there Roundup in our honey?

Overview: We aim to test different types of honey samples and investigate if there is glyphosate present when bees collect pollen from Roundup infested areas.

School: St Marys College

County: Wicklow

Teacher: Joanne English

Student(s): Elizabeth Kent,
Maeve Shortall

1513

Title: To investigate the reduction of plastic waste in a secondary school by the introduction of a reusable water bottle

Overview: To investigate the percentage decrease of plastic waste in an all-boys secondary school by the introduction of a reusable school water bottle.

School: Patrician Academy

County: Cork

Teacher: Orla Dineen

Student(s): Luke Barrow,
Henry Egbo, Conor Lavery

1514

Title: The effect of a full moon on the amount of precipitation

Overview: The use of historical Met Éireann data to show the effects of a full moon on precipitation.

School: Coláiste Choilm

County: Cork

Teacher: Paudie Scanlon

Student(s): Ben Buckley,
Jason Breathnach

1515

Title: A scientific investigation into the wild growth and abundance of Agaricus campestris in West Limerick

Overview: A scientific investigation into the factors affecting the growth of Agaricus campestris (the wild field mushroom) that lead to an abundance of the species in West Limerick during Autumn 2018.

School: Desmond College

County: Limerick

Teacher: Aoife Culhane

Student(s): Conor Fox,
Victoria Brouder

1516

Title: Plastic as a dish, what's in our fish?

Overview: An investigation into the presence of microplastics in fish and local bodies of water and the possible effects on our ecosystem.

School: Loreto High School

County: Dublin

Teacher: Rachel Hiney

Student(s): Ciara Barry,
Caoimhe Brennan

1517

Title: Investigating the Effect of Vaping on Live Cells

Overview: There is very little known about the health effects of "Vaping". We are investigating the effect of vaping liquids and vapour on e.coli (live cells).

School: St Mary's College

County: Londonderry

Teacher: Ann Blanking

Student(s): Hollie Harkin,
Caitlin Mc Fadden

1518

Title: An Investigation Into the Effects On Cognition of Sucrose, Fructose, Glucose, Saccharin and Caffeine

Overview: Does the consumption of caffeinated or of sugary drinks have a noticeable impact upon a person's cognitive functioning? And how do different sugars affect it?

School: Loreto Community School

County: Donegal

Teacher: Roisin Coyle

Student(s): Anne Caulfield,
Robin Turner, Amy Orr-Strain

1519

Title: Round Down Round Up

Overview: We aim to evaluate the potential of the allelopathic properties of walnut leaf extract as a safe, non-

toxic herbicide instead of synthetic weed-killing products.

School: Coláiste Choilm

County: Cork

Teacher: Lillian Heylin

Student(s): James Kelleher,
Sean Gavin

1520

Title: Long distance farming

Overview: To create a device that will record environmental information on a distant field to an app for monitoring via radio then wifi or Bluetooth.

School: St. Fintan's High School

County: Dublin

Teacher: Jenna Behan

Student(s): Peter Han, Pavel Iliin

1521

Title: The Effects of Global Warming On Crops

Overview: How changes in temperature and rainfall affect crop yield in Ireland this year and the previous 5 years to deduce a relationship between the two.

School: Bush Post Primary School

County: Louth

Teacher: Emily Kerr

Student(s): Thomas McCarragher,
James Savage

1522

Title: Does the strength of your sense of smell have a correlation with the strength of your short-term and long-term memory

Overview: We hope to measure our participants sense of smell and also their smell recognition and test it against their long and short-term memory strength.

School: St Mary's Diocesan School

County: Louth

Teacher: Sophie Caine

Student(s): Calum Agnew,
Seb Lennon

1523

Title: Observing The Antibacterial Effect of Processed Honey in Comparison to Raw Honey.

Overview: Our project aims to establish if the processing of honey alters its antibacterial effects while comparing it to the antibacterial effects of raw honey.

School: Coláiste Naomh Mhuire

County: Kildare

Teacher: Nadine Hennessy

Student(s): Sarah Fleming,
Linda McDonald, Laura Rooney

1524

Title: The Secret Life of Plants - An Investigation into the Communicative Capabilities of Plants

Overview: To investigate the methods through which plants communicate through their roots and airborne messages.

School: Coláiste Choilm

County: Cork

Teacher: Karina Lyne



Biological & Ecological Sciences

Student(s): Katie Lordan, Rachel Hughes, Jodie Sullivan

1525

Title: Dance And Cardiovascular Fitness: The Breakdown

Overview: We will investigate if dance improves the cardiovascular fitness of 12-14 year old boys more than traditional forms of cardiovascular fitness training such as circuit training.

School: Patrician Academy

County: Cork

Teacher: Orla Dineen

Student(s): Glen Singleton, Daniel Sheehan, Robbie Kelleher

1526

Title: How do different brands of Cola affect the calcium levels of bones?

Overview: We aim to find out if Cola affects how much calcium is in our bones and find out if this is caused by phosphoric acid.

School: Coláiste Naomh Mhuire

County: Kildare

Teacher: Nadine Hennessy

Student(s): Sarah Rowland, Lucy O' Reilly

1527

Title: Investigation of bacterial spread through the use of hand-dryers

Overview: To determine the levels of bacteria present in jet air hand dryers and to generate a recommendation report on the use of hand dryers.

School: Coláiste Choilm

County: Cork

Teacher: Karina Lyne

Student(s): Cliona Reardon, Hilary Scragg, Louise Clarke

1529

Title: A study on the accuracy of temperature and toxin levels in mussels in Bantry Bay based on the Marine Institute forecast.

Overview: We aim to calculate the accuracy of the Harmful Algae Bloom Forecast provided by the Marine Institute of Ireland using temperature and toxin data.

School: Coláiste Pobal Bheanntirai

County: Kerry

Teacher: Cornelia Hourihan

Student(s): Eoghan O' Mahony, Rory Lennon

1530

Title: 'Camogie vs Hurling' - Whose Body Works the Hardest?

Overview: Our project aims to compare the physical exertion of camogie players and hurlers.

School: Castlecomer Community School

County: Kilkenny

Teacher: Nora Henderson

Student(s): Yvonne Dooley, Katie Murphy, Eva Brennan

1531

Title: An in-depth exploration of

Geopathic Stress, its harmful and beneficial effects for humans and the natural world.

Overview: An in-depth exploration of Geopathic Stress, its harmful and beneficial effects for humans and the natural world, to create awareness and dispel myths.

School: Coláiste Pobal Bheanntirai

County: Cork

Teacher: James McSweeney

Student(s): Louise Downey, Chloé O'Sullivan, Sophia Hanrahan

1532

Title: Our Plastic Problem!

Overview: Our project aims to highlight the negative effects of plastics on oceans and marine life and to raise awareness of reusable alternatives.

School: Tarbert Comprehensive School

County: Kerry

Teacher: Gerard Nash

Student(s): Ciara O Donoghue, Ellen Godfrey

1533

Title: An investigation into the economic advantages of employing a plastic reformer to recycle plastic farm waste into sustainable farm products.

Overview: This project involves conducting a study of typical farm waste and testing its suitability for use in a plastic reformer.

School: Tarbert Comprehensive School

County: Kerry

Teacher: Gerard Nash

Student(s): Oisín Prendiville Brown, Eamon O'Connor, Ciaran Mulvihill

1534

Title: Cad atá muid ag ól? An mbíonn tionchar ar an fad a thaistíonn d'uisce ar a chaighdeán agus do sláinte?

Overview: Inár tionscnamh beimid ag déanamh mionscrúdú ar chaighdeán an uisce ó sconná faoi mar a thaistíonn sé níos faide ón taischshorcóir.

School: Gaelcholáiste Phort Láirge

County: Waterford

Teacher: Claire Joyce

Student(s): Caoilfhinn Harte, Ailbhe Munro

1535

Title: Does an apple a day keep the doctor away?

Overview: We will be testing the effect that fruit sugar has on the blood pressure of 12-14 year old students.

School: Coláiste na Sceilge

County: Kerry

Teacher: Jane Bryan

Student(s): Emily Jouen, Rachel Houlihan

1536

Title: To investigate how heat produced by decomposing plant matter could aid the growth of new plant life

Overview: We plan to harness the energy created by decomposing plant fibers and use it to aid the germination of other plants.

School: Coláiste An Spioraid Naoimh

County: Cork

Teacher: Aileen O'Mahony

Student(s): David Rasmussen, Ben Shorten, Eoin Twohig

1537

Title: Comparing Resting Heart Rate Variability In Leaving Certificate Exam Students Versus Transition Year Students

Overview: Heart rate variability data will be gathered from transition year students and leaving certificate exam students to establish whether a difference exists between the groups.

School: St Kieran's College

County: Kilkenny

Teacher: David Hennessy

Student(s): Jack McGuirk, Patrick Brennan, Thomas Carroll

1538

Title: Ditch the Decks or Feel the Effects!

Overview: The effect of deck shoes on people's feet. The popularity in different regions and different genders. The short and long term problems they can cause.

School: Laurel Hill Secondary School FCJ

County: Limerick

Teacher: Mary Frawley

Student(s): Issie Murphy, Lauren Walsh, Orla O' Connell

1539

Title: An Investigation into whether Graphene is an Effective Alternative to Plastic

Overview: In our project we carried out several tests on graphene and plastic in order to investigate whether plastic can be effectively replaced by graphene.

School: Mercy Secondary School

County: Kerry

Teacher: Eimear Nolan

Student(s): Natalia Talaga, Temisan King-Chaninomi

1540

Title: Can alternative pastures outperform artificial fertilizers?

Overview: Our project hopes to promote Herbal Leys and investigate their benefits on Irish Agriculture and the Environment thus improving biodiversity in nature.

School: Millstreet Community School

County: Cork

Teacher: Jennifer O'Donoghue

Student(s): Bevin Murphy, Darren Kiely, Omar Daly

1541

Title: To create a filter for water troughs on farms to conserve water, gather compostable algae to use as fertilizer and reduce manual labour while removing silt and algae.

Overview: Our project is a stainless-steel mesh water-trough filter which would be a tremendous benefit to farmers in the removal of algae, silt... while conserving water.

School: Coláiste Choilm

County: Cork

Teacher: Lillian Heylin

Student(s): Denise Murphy, Rose Murphy, Cliona Dooley

1542

Title: An Evaluation of River Pollution Monitoring in the North Cork Area

Overview: We aim to see if the EPA are testing water quality efficiently by comparing their results from set points to our results from random points.

School: Millstreet Community School

County: Cork

Teacher: Sarah Lyons

Student(s): Luke O Donoghue, Patrick Cronin, Dylan Downey

1543

Title: Does heading the ball in Football affect your memory and reaction speed?

Overview: A project to test the effects of heading the ball in Football.

School: Portlaoise College

County: Laois

Teacher: Aoife Fox

Student(s): Lee Carroll Talbot, Luke Kelly, Byron McGuirk

1544

Title: Effects of copper sulphate, zinc sulphate and formalin on footrot

Overview: We will examine three chemicals used to treat footrot: copper sulphate, zinc sulphate and formalin and how they affect the growth of duckweed, Lemna minor.

School: C.B.S. Roscommon

County: Roscommon

Teacher: Louise Gallagher

Student(s): Ronan Lambe, Daniel O'Brien, Conor McNulty

1545

Title: Are Tractors Squeezing The Life Out Of Irish Soil? The Impact Of Heavy Machinery On Soil and How It Affects Plant Growth

Overview: Our project aims to examine how farm machinery impacts soil structure and quality, as well as assess how it delays the rate of grass growth.

School: Coláiste Choilm

County: Cork

Teacher: Lillian Heylin

Student(s): Niamh Hegarty, Eimear Collins

1546

Title: Purification to save the nation

Overview: About 33% of Zambians don't have access to safe water. We wish to implement solar stills in their homes to purify their contaminated water.

School: Moate Community School



County: Westmeath
Teacher: Irene O'Sullivan
Student(s): Oisín Murphy,
Ruairi Casey, Jay Looney

1547

Title: The effects of music on mammals
Overview: The effects music has on the milk cows produce and our sleeping habits.
School: Loreto Secondary School
County: Kilkenny
Teacher: Brendan Williams
Student(s): Caragh Keating, Aoibhe Collins, Isabel Calbeck

1548

Title: Using satellites to establish if there is a correlation between the air quality of a city and the health of its plants
Overview: Our project aims to find a correlation between quality of air and the health of plants in cities by using satellite imagery.
School: Templeogue College
County: Dublin
Teacher: Darren O'Sullivan
Student(s): Pierce Comerford, Joshua Butler, Sam Hartigan

1549

Title: At Your Best With Rest: An Investigation into Sleep Deprivation in Young Athletes.
Overview: We aim to investigate the links between sleep deprivation and athletic performance, with a focus on teenage rugby players.
School: Schull Community College
County: Cork
Teacher: Larissa Kelly
Student(s): Asa Curran, Matthew Sheehan

1550

Title: An investigation into the properties of bacteriophage and if it can be used as an alternative or supplement to antibiotics to treat pathogenic bacterial infections.
Overview: We propose to investigate the properties of bacteriophage and if it can be used as an alternative/ supplement to antibiotics to treat pathogenic bacterial infections.
School: Middleton College
County: Cork
Teacher: Emma Griffin
Student(s): Ciara Fives, Alanna Drennan, Eabha Collins

1551

Title: Micro-plastics Matter
Overview: Ever wonder if washing machine filters do their job of fully removing micro-plastics from our clothes? We hope to highlight this issue.
School: Christian Brothers Secondary School
County: Cork
Teacher: Tara Carey

Student(s): Pádraic Byrne, Feran Akinbulumo, Charlie Byrne

1552

Title: Aerobic Cardiovascular Endurance: A Comparative Study into the differences between an Omnivore, Vegan and Vegetarian diet and its effects on one's Cardiovascular Endurance.
Overview: Our project aims to investigate the differences in Aerobic Cardiovascular Endurance between the dietary groups and how this affects their emotional well-being after exercise.
School: Sacred Heart Secondary School
County: Cork
Teacher: Claire Holland
Student(s): Nicole Hayes O'Donovan, Aoife Harte

1553

Title: Most successful pretreatment methods on coniferous tree seed germination rates
Overview: We have set up this experiment to test various seed pretreatment methods of coniferous tree species in order to find the optimum germination success rates.
School: Coláiste Eamann Rís
County: Kilkenny
Teacher: Catherine Stapleton
Student(s): Peter Tyrrell, Andrew Koval

1554

Title: Probiotic tablets Vs Foods high in probiotic
Overview: The aim of our project is to find out which is more beneficial-natural foods high in probiotic or probiotic tablets.
School: Coláiste Mhuire
County: Galway
Teacher: Geraldine Fallon
Student(s): Aimee Carty, Juilana Daly, Weronika Kubien

1555

Title: An Investigation into the Plastic Macro-debris on our Beaches
Overview: We will investigate the plastic macro debris found on our local beaches by counting and classifying. We will develop a website for beach plastic assessment.
School: Schull Community College
County: Cork
Teacher: Larissa Kelly
Student(s): Jess Ryan, Laura Kennedy

1556

Title: Dairy Farm, Methane Harm
Overview: Research to show the effect of climate change and global warming on a dairy farm.
School: Colaiste Mhuire
County: Westmeath
Teacher: Eva Acton
Student(s): Tadhg Heneghan, Jack Keena

1557

Title: An Investigation into the Physiological Changes that Occur When Playing 'Fortnite'
Overview: We intend to investigate the positive and negative effects of 'Fortnite' on heart-rate, blood pressure, concentration levels and reflex times on young people in Ireland.
School: Eureka Secondary School
County: Meath
Teacher: Mary Wright
Student(s): Crea Shine, Dara Yore, Faye Donaghy

1558

Title: A Cost-Effective Way to Maximise Milk Solids in a Dairy Herd
Overview: Our project aims to investigate the most productive way of maximising milk solids in a dairy herd without increasing expenditure.
School: Mount Mercy College
County: Cork
Teacher: Aaron O'Sullivan
Student(s): Alice Murphy, Triona Healy

1559

Title: The effect that the Summer 2018 Drought had on Irish Farmers
Overview: We are investigating the extent of damage the drought had on Irish Farmers
School: C.B.S. Roscommon
County: Roscommon
Teacher: Louise Gallagher
Student(s): William Tully, Kian Moran, Leon Doyle

1560

Title: An investigation which uses quantitative surveying techniques to determine the role plastic plays in littering our local beaches.
Overview: Could Ecological sampling techniques be used on Ireland's beaches to quantify the effects of Clean-up campaigns. Can we count plastic?
School: St Joseph's Secondary School
County: Dublin
Teacher: Daryl Dunne
Student(s): Ciara Monks, Samantha Makaraite, Abby Morgan

1561

Title: Mushroom Enzymes: The Key To Reducing Excessive Water And Laundry Detergent Usage While Washing Clothes.
Overview: We plan to show that mushrooms are the way to reducing excessive water usage whilst washing clothes by using the enzyme laccase on stained fabrics.
School: St Aloysius College
County: Cork
Teacher: Angelina Carew
Student(s): Molly Nagle, Lydia Smith, Abby Fogarty

1562

Title: To identify a Novel and Wildlife Supporting Use of Seafood Waste in Coastal Protection Against Destructive Ocean Waves
Overview: We plan to research the effects of coastal erosion and how to recycle sea shells into coastal protection and a safe habitat for sea life.
School: St. Mary's Secondary School
County: Mayo
Teacher: Annette Leonard
Student(s): Lauren Tuffy, Leah Hannon

1563

Title: Fear Free Foraging- Formulating a home test to distinguish between both edible and poisonous mushrooms by investigating their common chemicals
Overview: We aim to research the toxic chemicals in poisonous mushrooms to find their reagents, in order to create a simple test to distinguish the edible from inedible.
School: Sacred Heart Secondary School
County: Cork
Teacher: Elaine Galvin
Student(s): Alice Sexton, Aibhín Ruddy, Hannah Rafferty

1564

Title: What can we do with seaweed and how much is it worth to Ireland?
Overview: Seaweed is a food, a biofuel and a source of polyphenol and alginate. Seaweed cleans waters. What is the value of the seaweed to Ireland.
School: Mount Mercy College
County: Cork
Teacher: Aaron O'Sullivan
Student(s): Niamh Mc Carthy, Aimee Murphy, Rachel Doherty

1565

Title: Seven times above the limit! A study into Aluminium levels in Limerick water supply (Seacht n-uaire thar an teorainn! Imscrúdú ar leibhéal Alúmanam i soláthar uisce Luimnigh)
Overview: Staidéar ar an méid alúmanam in uisce óil Luimnigh agus an mbionn éifeacht ag alúmanam ar nithe beo, tríd tástáil ar fás agus fotaisintéis plandaí.
School: Gaelcholáiste Luimnigh
County: Limerick
Teacher: Ciara Ní Dhrisceoil
Student(s): Elaine Treacy, Clódagh Hannan, Eva McMahon

1566

Title: Investigation to prevent fungal diseases using natural anti-fungal plants
Overview: We aim to prevent fungal diseases using natural anti-fungal properties. We will make a mat for dressing rooms to kill fungus on the floors.



Biological & Ecological Sciences

School: St Joseph's Secondary School
County: Westmeath
Teacher: Darragh Glynn
Student(s): Grace Moran, Róisín Lyster

1567

Title: To investigate how audio illusions can deceive you.
Overview: Our project aims to find out how certain factors can influence what sounds you hear while listening to audio misconceptions.
School: St Mary's Secondary School
County: Cork
Teacher: Jennifer Butler
Student(s): Emma Deasy, Radisha Fernando

1568

Title: A solar powered solution for the aquaponic growth of leafy crops in developing countries
Overview: We aim to see if sustainable solar powered aquaponics can be used for small-scale growth of spinach without the use of chemical fertilizer.
School: Scoil Mhuire
County: Donegal
Teacher: Donna Furey
Student(s): Rory Coleman, Rachel Fletcher

1569

Title: Is seaweed the skincare solution for the future?
Overview: For our project we aim to investigate whether the skin care benefits attributed to seaweed are justified.
School: Coláiste Pobal Bheanntairi
County: Cork
Teacher: Cornelia Hourihan
Student(s): Sinead Cronin, Kate Keever, Orlagh O'Shea

1570

Title: Investigation of the effect of compostable single use coffee cups on compost formation as an indication of their impact on our environment.
Overview: We will be monitoring the affect of compostable single use coffee cups on pH, temperature, bacteria and nitrate levels in compost.
School: Tullamore College
County: Offaly
Teacher: Elaine Howlin
Student(s): Siobhán Greene, Michelle Gorman, Meadhbh O'Brien

1571

Title: An ecological survey on the flora of the formerly flooded Gearagh following recent weather phenomena
Overview: We're surveying the flora in the Gearagh delta, where the water level decreased for the first time in 60 years allowing an opportunity to survey.
School: Coláiste Choilm
County: Cork
Teacher: Karina Lyne
Student(s): Shane Usher,

David Delaney, James Faherty

1572

Title: Shut your mouth; A comparative study of the difference in the level of oxygen when breathing through your nose and mouth during exercise
Overview: We intend to compare the level of oxygen in your blood before and after exercise while breathing through your mouth and nose, over 6 weeks.
School: Coláiste Pobal Bheanntairi
County: Cork
Teacher: Cornelia Hourihan
Student(s): Edel Conolly, Rebecca Harrington, Nell Coppinger

1573

Title: To investigate the nitrate levels in drinking water supplied by water treatment plants in Cork
Overview: To investigate the nitrate levels in drinking water supplied by water treatment plants in Cork.
School: Carrigaline Community School
County: Cork
Teacher: Steven Corbett
Student(s): Lia Geary, Yewande Mosobalaje

1574

Title: Turning Irish plants into biofuel and comparing the potential of different Irish plants' ability to do so
Overview: Our goal is to compare the potential of different native Irish plants as potential fossil fuel alternatives whilst producing a biofuel from the most potential plant.
School: Coláiste Na Toirbhirte
County: Cork
Teacher: Siobhán Fitzgerald
Student(s): Grace McWeeney, Niamh Tobin, Lara Helbrow

1575

Title: Do the weeds affect the bees?
Overview: Our aim is to research about the bee extinction and produce an organic weedkiller that is non-harmful towards honey bees and the environment.
School: Salesian Secondary College, Pallaskenry
County: Limerick
Teacher: Lisa Downey
Student(s): Ellen Kingston, Róisín Gavin, Lisa Judge

1576

Title: Does umami affect your taste perception? An investigation into the effect of monosodium glutamate (MSG) on the perception of sweetness and saltiness.
Overview: Our project addresses the effects of umami on an individual's threshold of taste for sweetness and saltiness before and after consuming monosodium glutamate.
School: Loreto Secondary School, Balbriggan
County: Dublin
Teacher: Brian Higgins

Student(s): Katie Caffrey, Eve Mathews

1577

Title: Comparative analysis of sand composition in four West Cork beaches.
Overview: Analysis of the sand particles at the dunes of Long Strand to accept/reject whether they were formed by tsunami after the Lisbon earthquake 1755.
School: Mount St Michael
County: Cork
Teacher: Brendan Hogan
Student(s): Oran O Mahony, Lewis Murphy, Patrick Daly

SENIOR GROUP

1600

Title: Investigating the antibacterial effects of oils
Overview: Our aim is to investigate the antibacterial effects of various oils. We chose to test Coconut, avocado and tea tree oil.
School: South Eastern Regional College - Bangor Campus
County: Down
Teacher: Jonathan Cash
Student(s): Jude Young, Thaiba Jhan

1601

Title: Mors a Vita, A Study into the antibacterial properties of the basic building blocks of life
Overview: Our project investigates the antibacterial properties of simple amino acids and their potential uses in industries such as Healthcare and Dairy.
School: The Institute of Education - Dublin
County: Dublin
Teacher: Paul Corcoran
Student(s): Matthew O'Dwyer, Aaron Dinesh

1602

Title: Bicycle of Life
Overview: An Ecological innovation recycling used bicycles to create low till farming mechanisms, all-the-while combating soil erosion and increasing crop yield, in the developing world.
School: Portmarnock Community School
County: Dublin
Teacher: Niall Fitzgerald
Student(s): Joshua Fitzgerald Tighe, Caitlin Murphy

1603

Title: The Rise & Fall of The Fall Army Worm (Spodoptera Frugiperda)
Overview: All over Africa, countries are battling Fall Army Worms. Since pesticides are not sustainable, our goal is to manufacture an object which can trap them.
School: Desmond College
County: Limerick
Teacher: Donal Enright
Student(s): Shane Baguio,

Joanne Lai, Marcelina Krzywdzinska

1604

Title: Sphagnum Re-growth; A Solution to a Blazing Concern?
Overview: To develop a biodegradable pellet to promote the growth of Sphagnum species on burned peat lands.
School: Moate Community School
County: Westmeath
Teacher: Mairead Cusack
Student(s): Emma Kelly, Brian Conlon

1605

Title: A Study on the Effects of Charcoal Toothpaste
Overview: To investigate the effects of charcoal toothpaste on your teeth.
School: Heywood Community School
County: Laois
Teacher: Peter Malone
Student(s): Thanh Phelan, Shona Phelan

1606

Title: Crossing The Bridge From Earth To Mars: An Investigation Into Whether A Simulant Of Martian Soil Can Produce Plants in a Martian Environment.
Overview: Comparing the growth of garden cress in a recreated martian environment compared to earth's environment and investigating the effect of Phosphorus/Potassium on Martian soil.
School: Portmarnock Community School
County: Dublin
Teacher: Niall Fitzgerald
Student(s): Aaron Cullen, Adam Doyle

1607

Title: Allium Sativum: Can it combat the rise of the "Superbugs"?
Overview: We are investigating the antimicrobial properties of different varieties and forms of Allium Sativum (garlic), and comparing their results to those of commonly prescribed antibiotics.
School: Christ King Girls Secondary School
County: Cork
Teacher: Julia White
Student(s): Aisling O Connor, Alison O Connell

1608

Title: Investigating the Presence of Microplastics in Freshwater Lakes surrounding Killarney.
Overview: Our project is an investigation into the presence of microplastics in the lakes of Killarney, and how organisms in them are affected by this pollution.
School: St. Brigid's Secondary School
County: Kerry
Teacher: Emma Cronin
Student(s): Niamh Coffey, Claire Joy, Abby O' Leary



1609

Title: "The Creation of a "Real Time" Detection System and Treatment Method for Legionella in Water"

Overview: We are creating a "Real Time" Detection and Prevention System that will detect Legionella in water, helping to prevent things like Legionnaires Disease.

School: Terenure College

County: Dublin

Teacher: Aine Hallahan

Student(s): Dylan Curran, Andi Lupu

1610

Title: An investigation into the antibacterial properties of woodland plants

Overview: This project is an investigation into finding out what antibacterial properties woodland plants possess.

School: South Eastern Regional College - Bangor Campus

County: Down

Teacher: Jonathan Cash

Student(s): Oliver Kelsey, Alex Boyd

1611

Title: What gets your brain going? Caffeine v Exercise

Overview: This project focuses on the brain and how caffeine and exercise can affect it. We aim to see if they can increase reaction times.

School: Scoil Mhuire

County: Cork

Teacher: Shirley Breen

Student(s): Kate Layton, Jennifer O'Shaughnessy

1612

Title: Sphagnum: A Super Solution for Superbugs.

Overview: Our project will test the antimicrobial properties of sphagnum moss.

School: Our Lady's Bower

County: Westmeath

Teacher: Julie-Anne Greaney

Student(s): Kate Duffy, Isabelle Clarke

1613

Title: A Statistical Investigation of the Percentage Germination Viability and Ultimate Success of Taraxacum Officinale Seeds

Overview: Using Darwin's first observation of organisms over breeding. We want to investigate the next possible evolutionary step of the dandelion plant through its seeds' germination.

School: St. Mary's College

County: Galway

Teacher: Anthony Carey

Student(s): Éamonn Joeín Mac Donnachá, Michael Lukyanov

1614

Title: Investigating the biological benefits of E.M. probiotics in agriculture

Overview: This is a quantitative investigation of E.M. Probiotics as a natural fertilizer and as a treatment in the reduction of ammonia from nitrogenous fertilizers.

School: Meanscoil Gharman

County: Wexford

Teacher: Elaine Nic Réamoinn

Student(s): Conn Caomhánach Ó Muiris, Con Ó Meachair

1615

Title: Fools for Fuels: Air pollution

Overview: To publicize and analyse further, our data collected from a year long study on Air pollution using various monitors plus surveys of citizens fuel type usage.

School: Coláiste Iognáid S.J.

County: Galway

Teacher: Clodagh Mitchell

Student(s): Eoin O' Malley, Madeleine Mitchell, Roisin McGrath

1616

Title: An investigation into the development of antibiotic resistance in certain bacterial species with the aim of sequencing their genomes for any significant genetic changes

Overview: A look into the development of antibiotic resistance in certain bacteria aiming to find any genetic changes associated with this.

School: The Kings Hospital

County: Dublin

Teacher: Ciaran O'Connor

Student(s): Abdul Rabi, Hassan Al-Ekri, Ingrid Duggan

1617

Title: The effect of natural food extracts on insulin secretion from pancreatic cells

Overview: Testing different food extracts on pancreatic cells to find out if they increase insulin secretion.

School: South Eastern Regional College - Lisburn

County: Antrim

Teacher: Susan Stokesberry

Student(s): Izzy McConkey, Kerri-Melissa Burns, Sarah Scannell

Looking for a specific project?



Check the **2019 PROJECTS - QUICK SEARCH** on pages 10 - 13 or download our app!

Biological and
Ecological Sciences

1100 - 1617

Social and Behavioural
Sciences

2100 - 2714

Chemical, Physical and
Mathematical Sciences

3100 - 3608

Technology

4101 - 4611

Get the app

Get all the latest information about the exhibition, events and updates direct to your mobile, absolutely free!

Features include Interactive Exhibition Map, Getting Here, Search Student Projects, Schedule of Events, Social Network, Awards, History, Past Winners, Photo Gallery and more...

www.btyoungscientist.com/btyste-app



Download on the
App Store



GET IT ON
Google Play



#BTYTE



Social & Behavioural Sciences

JUNIOR INDIVIDUAL

2100

Title: Diabetes: Don't sugar coat it – Improving the general populations' understanding of Type 2 Diabetes to support prevention

Overview: My project is a study into people's misunderstandings and attitudes surrounding diabetes in Ireland and improving the streams of information readily available.

School: Colaiste Treasa

County: Cork

Teacher: Joanne Corkery

Student(s): Hannah Walsh

2101

Title: Teenagers and Sport

Overview: Why teenagers give up sport? I analyse and compare the opinion of students and sports enthusiasts and relate them to the current government health policies.

School: St Nathy's College

County: Roscommon

Teacher: Oonagh Redmond

Student(s): Latisha Beirne

2102

Title: A Statistical Study of the Attitude of Parents Towards Protective Clothing and Injury Prevention in Rugby

Overview: My project aims to look at the attitude of parents towards the role of protective clothing in rugby injury prevention, including parental awareness of concussion.

School: Kinsale Community School

County: Cork

Teacher: Shaun Holly

Student(s): Ryan McCarthy

2103

Title: An investigation into the childhood obesity crisis in Ireland – An analysis of the causes and recommendations for prevention

Overview: My project aims to examine the childhood obesity crisis in Ireland and to identify the causes and create recommendations to eradicate this growing epidemic.

School: Scoil Mhuire gan Smál Blarney

County: Cork

Teacher: Elaine Keane

Student(s): Miriam Murphy

2104

Title: Smart Parents? Smartphones.

Overview: The investigation of parental responsibility regarding their children's smartphone usage.

School: Colaiste Dun an Ri

County: Cavan

Teacher: Lorraine Marron

Student(s): Roisin Cooney

2105

Title: An Investigation into Effective Stress Coping Mechanisms and Strategies in Adolescents

Overview: An investigation into the most effective stress management

strategies and coping mechanisms that can be adopted and utilized by secondary school students.

School: St Mary's Secondary School

County: Dublin

Teacher: Bronwyn Mulvey

Student(s): Isla Vista

2106

Title: A study on the effect of the change from Daylight Saving Time

Overview: Aims to gather data in relation the effect of the change from Daylight Saving Time on the physical activity of second level students.

School: Heywood Community School

County: Laois

Teacher: Peter Malone

Student(s): Koren Dunne

2107

Title: Post Offices – The Hidden Gem!

Overview: In my project I am investigating the social impact of post office closures in rural communities across Ireland. I will then find a solution to the problem.

School: Christian Brothers Secondary School

County: Cork

Teacher: Tara Carey

Student(s): Jack McGrath

2108

Title: The cost of playing for the club: A statistical analysis of time and money spent by GAA Senior Club players

Overview: How much money do players have to spend to be part of the team? How much time are Senior Club players spending on the game?

School: Lanesboro Community College

County: Longford

Teacher: Michael Lyons

Student(s): Conor Lyons

2109

Title: A statistical analysis of the public's awareness of the danger of positional asphyxia associated with infant car seats.

Overview: My project aims to find out how many people know about positional asphyxia, particularly its associated risk of SIDS (Sudden Infant Death Syndrome).

School: Colaiste Dun an Ri

County: Cavan

Teacher: Linda Kelly

Student(s): Ryan Lockwood

2110

Title: Study of First Year students' home use of Information and Communication Technology (ICT)

Overview: We are going to investigate the home use of ICT by students and develop guidelines which can be used as part of the Wellbeing programme.

School: Moyne Community School

County: Longford

Teacher: John Masterson

Student(s): David Masterson, Seán Tiernan

2111

Title: How does guided meditation and yoga affect students' memory and stress levels?

Overview: My project aims to discover how different forms of meditation and yoga affect a student's short-term memory capabilities and short-term stress levels.

School: Christ King Girls Secondary School

County: Cork

Teacher: Julia White

Student(s): Ayushi Mahajan

2112

Title: Are young people enjoying their time in school?

Overview: My project aims to find out if students enjoy their time in school. I want to investigate whether links exist between age, gender and enjoyment.

School: Ashbourne Community School

County: Meath

Teacher: Beulah McManus

Student(s): Aksels Radionovs

INTERMEDIATE INDIVIDUAL

2200

Title: Talk to the hand!

Overview: Does observing rudeness in others affect our generosity, helpfulness, creativity and aggression?

School: Coláiste Muire Crosshaven

County: Cork

Teacher: Martina McMahon

Student(s): Róisín Duffy

2201

Title: Are students from national schools with autism centres more empathetic to students with ASD?

Overview: My project is an investigation into the varying rates of empathy developed by students in schools with and without specialist autism centres.

School: C.B.S. Roscommon

County: Roscommon

Teacher: Breege Grennan

Student(s): Jamie Finnegan

2203

Title: Staidéar ar cén glúin in Éirinn atá is gníomhach agus is eolach faoi athrú aeráide

Overview: Ba mhaith liom fiosrú conas a athraíonn an dearcadh maidir le athrú aeráide idir gach glúin in Éirinn agus cén glúin a bhfuil is gníomhach.

School: Coláiste Ailigh

County: Donegal

Teacher: Shane Ó Breacáin

Student(s): Oisín Ó Fearáin

2204

Title: Technology Becoming Smarter Humans Becoming Dumber – Is it the

reversal of The Flynn Effect?

Overview: A study of prevalence and associated factors with social media usage among students aged 13-18 and the apparent drop in the average IQ.

School: St Marys College

County: Wicklow

Teacher: Joanne English

Student(s): Roisin Quintin

2205

Title: Reading for Equality – An investigation into the gender and racial bias in children's classical and modern books, and if it can create stereotypes

Overview: I'm going to survey different age groups about their opinions on gender and racial bias in children's classic and modern books and if it creates stereotypes.

School: Scoil Mhuire gan Smál

County: Roscommon

Teacher: Anne-Marie Callaghan

Student(s): Maeve Farrell

2206

Title: Media Meddling with Memory? – An investigation into post-event information and how it alters your recollection.

Overview: My project is an investigation into if our memories of an event can be altered through the use of post-event information, such as suggestive images.

School: Coláiste Muire Crosshaven

County: Cork

Teacher: Martina McMahon

Student(s): Peter Lehane

2207

Title: Staidéar ar na difríochtaí sláinte idir an Lucht Siúil agus pobal gineareálta na hÉireann, agus scagthóir sláinte a dheardh i gcomhréir leo.

Overview: Staidéar ar na difríochtaí sláinte idir an Lucht Siúil agus pobal gineareálta na hÉireann, agus scagthóir sláinte a dheardh i gcomhréir leo.

School: Coláiste Iosagáin

County: Dublin

Teacher: Róise Ní Fhátharta

Student(s): Aoife Ní Bhriain

2208

Title: An Investigation Into the Difference in Retention of Information When Learning Using Screen, Using Paper or Aurally on the Basis of Age and Gender

Overview: I will be carrying out tests to establish which medium is the most effective for retaining information when learning using screen, paper and aural sources.

School: John The Baptist Community School

County: Limerick

Teacher: James Devereux

Student(s): James Wolfe



2209

Title: Artificial Sweeteners Vs Sugars; The health risks associated with each
Overview: My project aims to raise awareness about the risks and benefits of artificial sweeteners over sugar and to find out what students think is better.
School: Castlecomer Community School
County: Kilkenny
Teacher: Robert Morris
Student(s): John-Kevin Malone

2210

Title: Do people take care of objects better if they anthropomorphise them?
Overview: My project aims to assess if people take care of inanimate objects better if they give them human qualities or customise them.
School: Meán Scoil an Chlochair
County: Westmeath
Teacher: Padraic Earley
Student(s): Emma Ham

2211

Title: What Should Irish Democracy Look Like – and Could Brexit Affect It?
Overview: Using CSO data to form proportionate Dáils (both current and future) based on demographics, and comparing these models to current/projected Dáils, factoring in Brexit's effects.
School: Loreto College
County: Dublin
Teacher: Jamie Bain
Student(s): Aoife O'Flynn

2212

Title: How to Build Happiness
Overview: I aim to investigate the link between architecture and psychology and if we can use our cities to enhance the wellbeing of their residents.
School: St Marys College
County: Wicklow
Teacher: Joanne English
Student(s): Liadain O'Sullivan

2213

Title: Step Over Maths: A Step in the Right Direction?
Overview: I am investigating whether a short numeracy programme can increase students' numeracy skills. I will also look at the effects of gender and parental involvement.
School: Lanesboro Community College
County: Longford
Teacher: Mary O'Brien
Student(s): Orla Lyons

2214

Title: Sharing – but not Caring
Overview: An investigation into the personal content shared 'online' in comparison to 'offline'.
School: Desmond College
County: Limerick
Teacher: Aoife Culhane
Student(s): Matthew O'Connor

2215

Title: How magic affects the brain
Overview: A study of some of the effects of observing Magic on the brain and other body responses. Is there science behind the 'wow' factor?
School: St Marys College – C.S.Sp.
County: Dublin
Teacher: John Nisbet
Student(s): Oliver Grant

2216

Title: Are nursery rhymes appropriate for the 21st century?
Overview: My project is based on how we sing nursery rhymes about death, child abuse, animal cruelty etc. to young children.
School: Killorglin Community College
County: Kerry
Teacher: Donal O'Reilly
Student(s): Natasha Myers

2217

Title: Sexual Orientation and Drug and Alcohol Abuse
Overview: This project is investigating the correlation between a person's sexual orientation and the abuse of drugs and alcohol as well as school absenteeism.
School: Coláiste Muire Crosshaven
County: Cork
Teacher: Martina McMahon
Student(s): Shane Williams

2218

Title: Does having a distraction affect your pain receptors.
Overview: This project aims to investigate whether various distractions affect a person's ability to feel pain and what distractions are best for reducing pain.
School: St Joseph's Secondary School
County: Dublin
Teacher: Daryl Dunne
Student(s): Ethan Shine

2219

Title: Cervical Cancer – Not So Silent
Overview: An investigation to discover the effects that incorrect smear test results have brought about to the women of Ireland.
School: Salesian Secondary College, Pallaskenry
County: Limerick
Teacher: Lisa Downey
Student(s): Cathal Moane

2220

Title: An bhfuil Damseoirí Gaelacha níos corpacmhainneach ná Imreoirí CLG
Overview: My project aims to examine if an Irish dancer is fitter than a GAA Player. I aim to develop strategies to examine this project.
School: Meanscoil Gharman
County: Wexford
Teacher: Elaine Nic Réamoinn
Student(s): Jennifer McGrath Kerins

SENIOR INDIVIDUAL

2300

Title: An investigation into the benefits of non-formal education in Ireland
Overview: This project explores the range of benefits to young people of a range of non-formal education using organisations in Ireland.
School: Coláiste An Spioraid Naoimh
County: Cork
Teacher: Tim Kerins
Student(s): Aidan Mamoo Cooney

2301

Title: Do you trust Bitcoin? Yeah, me neither
Overview: An investigation into why Bitcoin is in fact not the future of currencies and online transactions, contrary to what we're made believe.
School: St. Mary's College
County: Galway
Teacher: Anthony Carey
Student(s): Alex Polchowski

2302

Title: Memobiology – A study of common behaviour in internet memes and organisms
Overview: A study of the similarities in behaviour of biological organisms and internet memes, investigating what causes the growth, spread and death of a meme.
School: Colaiste Choilm
County: Offaly
Teacher: Ann Molloy
Student(s): Diarmaid Hehir

2303

Title: To determine if the current RSE course adequately prepares young people for changing health and social issues in Ireland.
Overview: To find the opinions of Irish students on the delivered 'Relationships and Sexual Education' course and if they feel it is outdated and needs updating.
School: Presentation Secondary School
County: Tipperary
Teacher: Patricia Stapleton
Student(s): Róisín O'Connor

2304

Title: Wearable Memory Device
Overview: This project aims to design and create a device that would alleviate every day minor worries for people with anxiety.
School: Scoil Mhuire
County: Meath
Teacher: Clare Atkinson
Student(s): Maeve Kenny

2305

Title: Analysis of Disabled Parking Misuse
Overview: The aim of this project is to observe and analyse human interaction with different disabled parking deterrents. Results will show

which deterrents are most effective.
School: C.B.S. Thurles
County: Tipperary
Teacher: Patrick Dunne
Student(s): Adam O'Donohoe

JUNIOR GROUP

2400

Title: To investigate the effects Fortnite has on your mood.
Overview: We hope to investigate the effects of Fortnite on your mood.
School: Heywood Community School
County: Laois
Teacher: Sharon Magner
Student(s): Ben Coss, James Whelan, Fionan Mahony

2401

Title: An Investigation Into The Possible Damage Caused By Parental Input From The Sideline In Field Sports
Overview: We intend to investigate the possible damage caused by parental input on the sideline and the effect that it has on players, coaches and referees.
School: Coláiste An Spioraid Naoimh
County: Cork
Teacher: Aileen O'Mahony
Student(s): Timmy O'Riordan, Ross O'Donovan, Brian Donnelly

2402

Title: Cervical Check and the HPV Vaccine – Information, Opinion and Fake News.
Overview: Our project is about cervical cancer and our knowledge and understanding of everything that surrounds this condition in light of the Cervical Check Scandal of 2018.
School: Ard Scoil Na Mara
County: Waterford
Teacher: Niamh Shannon
Student(s): Róisín Ni Chadhlá, Jovana Gajic

2403

Title: A statistical analysis of the impact of playing golf on the self esteem and well being of female adolescents.
Overview: This project aims to investigate the effect of playing golf on the self esteem and well being of female adolescents.
School: Colaiste Treasa
County: Cork
Teacher: Joanne Corkery
Student(s): Ava Hynes, Katie Savage

2404

Title: Smartercise – The impact of both aerobic and anaerobic exercise on memory recall in teenagers
Overview: We are testing to see the level of impact on memory recall of both aerobic and anaerobic exercise in 12 to 19 year olds.
School: St Raphaels College
County: Galway
Teacher: David Fogarty



Social & Behavioural Sciences

Student(s): Cormac Liu, Reece Daniels, Christopher Kerans

2405

Title: A Statistical Study into the financial sustainability of the agricultural sector in Ireland
Overview: An examination of the degree of awareness of financial sustainability of farms in both the farming and non-farming communities.

School: Kinsale Community School
County: Cork

Teacher: Shaun Holly

Student(s): Sarah Deasy, Ben Loughnane, Ben McCarthy

2406

Title: To investigate if exotic animals are being kept in cruelty free environments

Overview: Investigating if exotic animals are being kept in the correct conditions and if it is better for them to live in the wild.

School: Colaiste Dun an Rí

County: Cavan

Teacher: Lorraine Marron

Student(s): Jessica Dodd, Niamh Sheenan

2407

Title: What Do You Think Of Me? A statistical analysis of adolescents & elderly people's perceptions of aging
Overview: Our project aims to discover if intergenerational learning creates more positive perceptions towards aging in both adolescents and elderly people.

School: Colaiste Treasa

County: Cork

Teacher: Maighread O'Leary

Student(s): Abby Reynolds, Ailish O'Hanlon, Aoife O'Brien

2408

Title: An investigation into whether meditation affects ones academic success

Overview: In this project we intend to investigate whether meditation affects ones academic success and ability to retain information.

School: Coláiste An Spioraid Naomh

County: Cork

Teacher: Aileen O'Mahony

Student(s): Ben Maher, Cian Hourigan

2409

Title: Irish Sign Language (ISL): learning the language in a class room vs online and a study into the awareness of the language

Overview: The project seeks to establish if ISL is more effectively learned via self directed learning website tool, or if classroom based teaching is more effective.

School: St Louis High School

County: Dublin

Teacher: Catherine Clayton

Student(s): Cara O'Reilly,

Nicole Murray, Ellena Brady

2410

Title: The Psychological affects of Alopecia Areata in Teenagers

Overview: Our project is going to be on Alopecia Areata and how it affects teenagers and their everyday lives.

School: Scoil Mhuire gan Smál Blarney

County: Cork

Teacher: Robert Nolan

Student(s): Camille Udrón, Dearbhla Murphy

2411

Title: Can five minutes of mindfulness reduce anxiety and improve behaviour?

Overview: We will be seeing if five minutes of meditation a day can help relieve stress and improve student behaviour.

School: Ringsend College

County: Dublin

Teacher: Jonathan Walker

Student(s): Abbie Cassidy, Lucy Rigley

2412

Title: Weighing in: A study into BMI measurement programmes in Irish School.

Overview: This project aims to uncover the opinions of students, parents, teachers, principals and health professionals on introducing a BMI measurement programme in Irish Schools.

School: St Joseph's Secondary School

County: Dublin

Teacher: Daryl Dunne

Student(s): Lorcan Devine, Ryan Attley

2413

Title: Cabhair Cuimhne

Overview: Tá timpeall 55,000 daoine le néaltrú, tá gá ann i gcomhair aip meabhrúcháin, dea - feidhmiúil atá éasca le úsáid do dhaoine le nealtrú.

School: Gaelcholáiste Luimnigh

County: Limerick

Teacher: Anne-Marie Fitzgerald

Student(s): Niamh Fennessy, Ciara Nic Uiginn

2414

Title: Overtraining Syndrome in Teenage Girls

Overview: Our project looks at how teenage girls between the age of 12-18 years are affected by overtraining. Undertraining will also be highlighted in our analysis.

School: Loreto College

County: Dublin

Teacher: Kellie Fennell

Student(s): Sarah McConnell, Eva Magee

2415

Title: Are we underselling ourselves? A statistical analysis of Galway's participation in the BTYS

Overview: Our project aims to find out the percentage participation of

Galway schools in the BTYS compared with the national rates and reasons for this rate.

School: St. Mary's College

County: Galway

Teacher: Anthony Carey

Student(s): Dan Carey, Liam Murphy

2416

Title: Fortnite: Good or Bad

Overview: We aim to investigate and monitor the stress levels of teenagers while playing Fortnite.

School: Scoil Mhuire Strokestown

County: Roscommon

Teacher: Kevin Gallagher

Student(s): Michael McDonnell, Adam Tighe

2417

Title: People's attitudes towards first aid being a compulsory subject in schools

Overview: We are investigating people's attitudes and awareness towards first aid in schools.

School: Kinsale Community School

County: Cork

Teacher: Shaun Holly

Student(s): Orla Madden, Katie Reynolds, Niamh Crowley

2418

Title: Using statistics to investigate changing use of language in Irish Primary students' writing after 80 Years.

Overview: Math's and Statistics are used to study word usage and patterns in the writings of Primary school children in the 1930's and present day students.

School: The Kings Hospital

County: Dublin

Teacher: Ciaran O'Connor

Student(s): Kate Bagnall, Bobbi Beattie

2419

Title: Homelessness - A crisis that can be solved

Overview: To investigate if homelessness is as big a crisis in rural communities as cities. To find out if people have any valuable suggestions.

School: Colaiste Dun an Rí

County: Cavan

Teacher: Lorraine Marron

Student(s): Sarah Owens, Molly McKeon, Mary O'Loan

2420

Title: Get a Grip - Using data analysis to improve U6 Hurling Skill Development.

Overview: Using data collection and analysis to develop a training aid for U6 hurlers to learn the correct fundamental skill of holding a Hurley.

School: Portumna Community School

County: Galway

Teacher: Fiona Kenny

Student(s): Ciara Kenny, Ruth Lohan, Aoife Murray

2421

Title: How does coloured paper influence learning?

Overview: Our project will assess the impact of coloured paper on learning ability. The study aim is to determine if paper colour impacts student learning ability.

School: Coachford College

County: Cork

Teacher: Niamh Riordan

Student(s): Fiona Dowling, Elma McCarthy, Olan Buckley

2422

Title: Becoming Carbon Neutral

Overview: We will measure the carbon-footprint of a sample of teenagers in South Dublin, and the number of trees required to make them Carbon Neutral.

School: Blackrock College

County: Dublin

Teacher: Emer O'Reilly

Student(s): Max Mullen, Ethan Leon-Ryan

INTERMEDIATE GROUP

2500

Title: Eating Disorders: Are We Educated?

Overview: The aim of our project is to investigate and compare the knowledge that people of different age groups have acquired in relation to eating disorders.

School: John The Baptist Community School

County: Limerick

Teacher: Sarah O' Dwyer

Student(s): Anna Joy-O'Regan, Eimear Molloy, Ciara Ramsbottom

2501

Title: Sugar tax ~ Did it make a difference?!

Overview: Did the sugar tax have the desired effect that the Government had expected? Did the sales decrease enough to make a difference?

School: Presentation Secondary School Mitchelstown

County: Cork

Teacher: Julie Hanlon

Student(s): Aoife Leonard, Noelle Lane, Lauren Murphy

2502

Title: Stay Cool, Stay Sober:

A statistical analysis of the consequences of underage drinking
Overview: Our project aims to find out how underage drinking affects the behaviour and attitude of teenagers towards school and their community.

School: St Mary's Secondary School

County: Cork

Teacher: Jennifer Butler

Student(s): Katherine Aynsley, Andzelika Wyka, Milena Krahle



2503

Title: A Vegetarian World

Overview: Our project aims to investigate society's changing attitudes towards vegetarianism, and the environmental impact of consuming less meat.

School: St. Brendan's Community School

County: Offaly

Teacher: Aisling Duane

Student(s): Eve Murray, Alex Brady, Megan Hough

2504

Title: What are the odds? Is online gambling playing a game of Russian Roulette with the wellbeing of young people today?

Overview: Online gambling addictions are emerging in Ireland. They are hidden, potentially addictive, creating a huge cost and are affecting more and more young people.

School: Coláiste Choilm

County: Cork

Teacher: Lillian Heylin

Student(s): Dearbhla Walsh, Holly Kierans, Ciara Guilfoyle

2505

Title: An Investigation into the use of Antibiotics on Livestock by Irish Farmers

Overview: We want to survey farmers to find out how widespread and how well antibiotics are used on Irish livestock.

School: Clonakilty Community College

County: Cork

Teacher: Patrick O Keeffe

Student(s): James Lynam, Liam Barry, Ruairi O'Brien

2506

Title: Homeless Helper

Overview: A light sleeping bag or tent that fits easily into a regular backpack with added insulation. Ideal temporary shelter for someone living on the streets.

School: St Mary's High School

County: Cork

Teacher: Niamh Jones

Student(s): Fiona Hourigan, Miriam Wall Thompson, Jennie Ruddle

2507

Title: An Investigation Into Why Mental Health Issues Are On The Rise Amongst Young People In Limerick Today

Overview: Our project aims to investigate the reasons as to why mental health issues are increasing amongst young people today.

School: Coláiste Iósaeaf

County: Limerick

Teacher: Brian Clarke

Student(s): Leah Earls, Fiona Conheady, Claire McCormack

2508

Title: The Cannabis Question??

Public Opinion on the Legalisation of Medicinal Cannabis in Ireland.

Overview: An investigation into public opinion on the legalisation of medicinal cannabis in Ireland.

School: Ardscoil Ris

County: Limerick

Teacher: Diane Condon

Student(s): Fergal Egan, Stephen McPartlin, Kyle McMahon

2510

Title: 'The Mandela Effect': A cognitive study proving the existence of collective confabulation

Overview: We will prove the existence of collective confabulation which is when large groups of people have the same false memories. [e.g Mandela's death]

School: John The Baptist Community School

County: Limerick

Teacher: James Devereux

Student(s): Colm O'Riordan, James Martin, Aidan Walker

2511

Title: How Brexit will affect businesses on both sides of the border between the Republic of Ireland and Northern Ireland

Overview: We aim to measure how businesses on both sides of the border will be affected by Brexit and how it will impact both economies.

School: Bush Post Primary School

County: Louth

Teacher: Gary Galvin

Student(s): James McDonnell, Ronan Mc Bride, Mary Ryan

2512

Title: A study using statistical methods on the public's awareness of Silent Coeliac Disease and the effects of the disease.

Overview: We intend to conduct a survey with a minimum of 500 respondents to test for people's awareness of the silent coeliac disease and its effects.

School: Kinsale Community School

County: Cork

Teacher: Shaun Holly

Student(s): Caoimhe Ní Loinsigh, Holly Finucane, Caoimhe Lynch

2513

Title: Does inequality in sport affect women's attitude towards the game?

Overview: We will investigate how inequality in sport towards women affects their attitude towards and participation in the game.

School: Meán Scoil an Chlochair

County: Westmeath

Teacher: Padraic Earley

Student(s): Katie Reid, Roisin Mealiff, Ella Ravenhill

2514

Title: Ag Fiosrú na n-Éifeachtaí a bhainfeadh le teorann crua ar Phoblacht na hÉireann. Investigating

the effects of a hard border on Ireland's economy, agriculture and future generations.

Overview: Imscrudú ar éifeachtaí an teorann chrua ar an margadh talmhaíochta, ar an ngeilleagar in Éirinn agus ar na héifeachtaí a bheidh aige ar dhaoine óga.

School: Meanscoil Gharman

County: Wexford

Teacher: Elaine Nic Réamoinn

Student(s): Erin Ní Dhuibhne, Ava O'Connor, Aoife Nic Ghiolla Bhríde

2515

Title: "COULD IT BE SEPSIS?? These FOUR WORDS could SAVE your LIFE!!" A statistical investigation examining the public's perceptions and accurate understanding of Septicaemia within Ireland

Overview: The aim of our project is to investigate the public's perceptions and accurate understanding of septicaemia within Ireland through collection and mathematical analysis of data.

School: Pobalscoil Neasain

County: Dublin

Teacher: Gemma Buicke

Student(s): Cian Doran, Fiona Collins

2516

Title: Are we Witnessing the Downfall of Catholicism in Ireland in today's society?

Overview: By analysing CSO data and through surveying students and the general public we intend to discover evidence for changing views of the Catholic Church.

School: Bush Post Primary School

County: Louth

Teacher: Emily Kerr

Student(s): Daniel Tumulty, Darren Connor, Luke O'Hanlon

2517

Title: Identity in our Society

Overview: We are investigating how people identify themselves in different situations. We will survey students of different genders on how people react to their situation.

School: St Mary's High School

County: Cork

Teacher: Niamh Jones

Student(s): Anna Gilsenan, Madison Power, Katie Linnane

2518

Title: What causes stress in Irish teenagers and what effects it has on the body

Overview: We are conducting a survey to investigate the initial causes of stress in teenagers as we hope to tackle this problem from the root.

School: Loreto Secondary School

County: Kilkenny

Teacher: Brendan Williams

Student(s): Ellen Daly, Abby Gilsenan

2519

Title: Run the Risk

Overview: Our project explores the differences in society's perception of risk-based investment with that of gambling with a view to facilitate better financial planning.

School: Loreto High School

County: Dublin

Teacher: Susan Keady

Student(s): Sadbh Long, Eve Macaulay, Nicole Egan

2520

Title: 'Build a tower, Build a team'. Who will perform better in 'The Marshmallow Challenge'? Groups of people from successful business and sporting teams or randomly put together teams.

Overview: We hypothesise that teams that have a record of success together can construct higher towers, in the "Marshmallow Challenge", than teams who haven't worked together.

School: St Vincent's Secondary School

County: Louth

Teacher: John White

Student(s): Ellen Rooney, Sarah Morgan

2521

Title: Technostress: An Investigation into the Physiological Anxiety Responses in Students when Separated from their Mobile Phones.

Overview: Our project focuses on technostress, specifically nomophobia, the stress and anxiety millennials experience when being separated from their phone.

School: Coláiste Choilm

County: Cork

Teacher: Karina Lyne

Student(s): Rebecca Sheehan, Caoimhe Buckley, Maria O'Connor

2522

Title: Absenteeism as a result of Type 1 diabetes

Overview: Investigation into the rate of absenteeism from school/college/work in young people with Type 1 Diabetes in Ireland.

School: Our Lady's Secondary School

County: Monaghan

Teacher: Kathryn Higgins

Student(s): Maria Duffy, Laura Christie, Tara Quinn

2523

Title: The Averageness Phenomenon

Overview: In our project we'll be investigating the phenomenon of Averageness. We'll investigate this phenomenon by surveying people on their attraction towards our average-looking chosen celebrities.

School: Blackwater Community School

County: Waterford

Teacher: Paul Joyce

Student(s): Caoimhe Cliffe, Emily Coughlan

2524

Title: Assessing parental attitudes to



Social & Behavioural Sciences

the uptake of the HPV vaccine among adolescent boys in the South East.

Overview: Our project aims to assess parental attitudes towards the HPV vaccine for adolescent boys and investigate methods to improve the uptake of the vaccine.

School: Loreto Secondary School

County: Kilkenny

Teacher: Brendan Williams

Student(s): Katy Hynes, Cliona Dunne

2525

Title: What is the Future of the Motor Industry - Diesel, Petrol or Electricity

Overview: Conduct a survey to discover what the Irish public believe is the future of the Irish motor industry, petrol, diesel or electric cars.

School: Ardscoil Ris

County: Limerick

Teacher: Diane Condon

Student(s): Eoin Hayes, Andre Birdthistle

2526

Title: Does the leaving certificate efficiently prepare you for college?

Overview: An investigation into how the Leaving Certificate prepares students for college and which aspects of the Leaving Certificate can be improved upon.

School: John The Baptist Community School

County: Limerick

Teacher: Sarah O' Dwyer

Student(s): Sinéad O' Connell, Mollie McKeogh, Moya Bourke

2527

Title: The Shape of You - The Push and Pull on Body Image Accuracy in Irish Adolescents

Overview: This project investigates how accurate adolescents are at describing body size, what influences body dissatisfaction and are there differences between male and female views.

School: Colaiste Treasa

County: Cork

Teacher: Brid-Anne O'Donoghue

Student(s): Vivienne Field, Dara O'Shea

2528

Title: Wilful Waste, Woeful Want: An investigation into lunch packaging.

Overview: Investigating and measuring the waste and cost accumulated for lunch packaging in our school on a weekly basis.

School: Sacred Heart Secondary School

County: Cork

Teacher: Claire Holland

Student(s): Clodagh Murphy, Alison Moriarty

2529

Title: The effects of psoriasis on adolescent mental health in 2018.

Overview: Our project is focusing on the skin disorder psoriasis and

how it effects the mental health of adolescents in 2018.

School: Millstreet Community School

County: Cork

Teacher: Jennifer O'Donoghue

Student(s): Hannah Keane, Ria Buckley

2530

Title: An chuireann teicneolaíocht isteach ar cuimhne gearrthearma go diúltach ar daltaí scoile?

Overview: Táimid ag feachtaint ar an tionchar atá ag teicneolaíocht ar cuimhne gearrthearma daltaí.

School: Scoil Mhuire

County: Cork

Teacher: Katie Uí Néill

Student(s): Jessica Ní Cheilleachair, Abbey Ní Sheaghda, Donna Ní Cheocháin

2531

Title: An Investigation into the Effect of Font Style and Colour on the Retention of Information while Reading

Overview: Our project aims to find the most effective text format with which to present information in order to allow readers to remember more of it.

School: Coláiste An Spioraid Naoimh

County: Cork

Teacher: Aileen O'Mahony

Student(s): Dylan O'Toole, Thomas O'tway, Leo Callanan

2532

Title: An Analysis of Female Centric Bullying Terminology

Overview: We are investigating the most common terms used in female centric bullying e.g. media/direct/indirect bullying. This is female to female bullying.

School: St Vincent's Secondary School

County: Louth

Teacher: John White

Student(s): Sorcha Cassidy, Alice Quinn

2533

Title: Dearcadh tiománaithe óga i leith alcól

Overview: To investigate the perceptions of young drivers with respect to alcohol use and recommendations on how to modify it.

School: Pobalscoil Ghaioth Dobhair

County: Donegal

Teacher: Siobhan Ní Shearcaigh

Student(s): Leah Ní Ghairebhagh, Gemma Ní Fhearraigh, Liam Gallagher

2534

Title: I Am Woman, Hear Me Roar (Maybe?)

Overview: To show what type of environment affects girls confidence during adolescence and if it affects future roles and receive results by means of a survey.

School: Presentation Secondary School Mitchelstown

County: Cork

Teacher: Julie Hanlon

Student(s): Emma Fitzgerald, Shannon Doyle

2535

Title: Statistical analysis of changing attitudes towards male workers in early years childcare/education

Overview: To provide statistical analysis of the attitudes of early years providers, and children to male involvement in early years childcare and education.

School: Dominican College

County: Wicklow

Teacher: Bonita Darcy

Student(s): Rachel Foster, Aishling O'Neill

2536

Title: Pulling An All Fortnite?

Overview: We want to investigate online gaming with Fortnite as our example and get opinions from people if they think the game is dangerous or not.

School: Rosses Community School

County: Donegal

Teacher: Kevin Boyle

Student(s): Alfie Greene, Kieran Glackin

2537

Title: Who cares about the carer?

Overview: An insightful look into the wellbeing of a caregiver by investigating the physical, mental and emotional effects of being a family carer.

School: Sacred Heart Secondary School

County: Cork

Teacher: Elaine Galvin

Student(s): Sinéad Coomey, Aoife O'Sullivan, Sinéad Coleman

2538

Title: Why is isotretinoin (Roaccutane) so dangerous?

Overview: To investigate why this antibiotic has many side affects and if age, sex, body weight or lifestyle influence these side effects?

School: Loreto College

County: Cavan

Teacher: Michelle Rogan

Student(s): Mairead Sexton, Erin Young

2539

Title: An investigative study on views towards student centred teaching methodologies in the Irish secondary level education system

Overview: Our project focuses on the advantages and disadvantages of student/ teacher centred learning. We will figure out which method is preferred and which is more effective.

School: John The Baptist Community School

County: Limerick

Teacher: James Devereux

Student(s): Siobhan Condon,

Rebecca Harty, Jessica Costelloe

2540

Title: A One-Stop Shop website for parents of School Leavers

Overview: Our project aims to create a website to help parents easily access all the information they need about their child moving from secondary level education.

School: Millstreet Community School

County: Cork

Teacher: Denise O Leary

Student(s): Sarah Linehan, Ryan Murray, Sylwester Brak

2541

Title: The Effects of Seating Plans on Academic Performance.

Overview: We are investigating effects alphabetical seating has on academic performance. e.g. Those with surnames higher up in the alphabet perform better than those lower down?

School: Castletroy College

County: Limerick

Teacher: Ellen Murnane

Student(s): Harry Doyle, Aaron Carroll

2542

Title: The positives of Game Based Learning

Overview: Our project is based around game based learning. We will be highlighting and explaining the positive effects of GBL.

School: Scoil Mhuire Strokestown

County: Roscommon

Teacher: Modwena Geoghegan

Student(s): Sara Tyndall, Katie Mulvihill

2543

Title: Student Voice in School - Are We Being Heard?

Overview: We aim to establish whether students feel they have a voice in school and how to improve student input in school beginning in the classroom.

School: Presentation Secondary School Mitchelstown

County: Cork

Teacher: Julie Hanlon

Student(s): Sarah Lewis, Aisling Barry, Elsa Delobel

2544

Title: An intervention to teach young GAA players how to manage their emotions during competitive matches

Overview: We aim to teach young GAA players how to manage their emotions during a match in a competitive environment.

School: St. Fintan's High School

County: Dublin

Teacher: Jenna Behan

Student(s): Charlie McCarthy, JJ McCarthy

2545

Title: Attendance in a co-educational school or single sex school, which has



the most significant impact on the anxiety levels of teenage girls?

Overview: Our project aims to find out does the school type attended by girls aged fourteen to sixteen, have an effect on their level of anxiety.

School: Meán Scoil an Chlochair

County: Westmeath

Teacher: Niamh Daly

Student(s): Lisa Ennis, Erin Heeney

2546

Title: Cognitive Classrooms – a novel approach to streaming classes for the new Junior Cycle

Overview: We aim to trial and assess the success of a new method of streaming classes in our school, based on students' Myers-Briggs Type Indicator profiles.

School: Muckross Park College

County: Dublin

Teacher: Lisa Shine

Student(s): Eabha Kernan, Aisling McCabe

2547

Title: An Investigation into the effects of global warming on floods in Ireland and creating an alert system for people living in areas that are prone to flooding

Overview: An insight into the effects of flooding from the problem of global warming in Ireland and creating an alert system.

School: Colaiste Mhuire

County: Westmeath

Teacher: Eva Acton

Student(s): Cian Flaherty, Eoin Rhatigan

2548

Title: Anaphylaxis-We Need A Reaction!

Overview: To highlight the important issue of the safety and protection of the allergic child in school against allergen risk and the prevention of anaphylaxis.

School: Athlone Community College

County: Westmeath

Teacher: Martina Roache

Student(s): Damien Kelly, Luke Coffey, Neil Hannon

2549

Title: Road Quality in Rural Ireland: Effects and Solutions.

Overview: We will investigate the quality of roads in West Cork, and the negative effects of poor quality roads on cars to find or create solutions.

School: Schull Community College

County: Cork

Teacher: Larissa Kelly

Student(s): Daisy Seward, Awinn Harrington-Wieler

2550

Title: Investigation of the link between excessive social media use and anxiety.

Overview: Our project aims to investigate and raise awareness about

the link between social media usage and well being/anxiety for teenagers.

School: Patrician High School

County: Monaghan

Teacher: John O'Rourke

Student(s): Daire Shankey, Dáire Poval, Calum Quigley

2551

Title: Climbing OUT of the Cis Abyss

Overview: Our project aims to statistically analyse information that we will collect on people's true feelings of non-binary identities.

School: Presentation Secondary School Mitchelstown

County: Cork

Teacher: Julie Hanlon

Student(s): Hazel Walsh, Faye Hayes, Katie Hickey

2552

Title: The Misconception about Obsessive Compulsive Disorder and what the Mental Illness is really about

Overview: Carrying out research relating to how much people know about OCD, Stigma surrounding it and a detailed investigation on what the Mental Illness actually is.

School: Dominican College

County: Dublin

Teacher: Gemma Kirwan

Student(s): Aine Burke, Sarah Bleahen

2553

Title: To investigate the reading habits of the new generation

Overview: Investigating reading habits of the new generation, completed through a series of surveys and interviews identifying the genres and popular Authors of the new generation.

School: Comeragh College

County: Tipperary

Teacher: Carrie Hogan

Student(s): Tadhg Sheehan, Jennifer Long, Aidan McGrath

2554

Title: A statistical investigation into the effects of the fodder crisis on farmers mental wellbeing

Overview: Our aim: to investigate the effects of the fodder crisis on farmers mental wellbeing, identify the stress factors and generate recommendations that need to be implemented in future.

School: Ballymahon Vocational School

County: Longford

Teacher: Sinead Mulcahy

Student(s): Patrick Connaughton, Darragh Whyte, Frankie Moffatt

2555

Title: How safe are our roads?

Overview: An investigation of 'qualified' drivers knowledge of the rules of the road by retesting experienced drivers with the driver theory test.

School: Colaiste Chomain

County: Mayo

Teacher: Paul Coyle

Student(s): Ruairí O'Donnell, Seán Irwin, Callum Boon

2556

Title: Measuring the 'happiness' of teenage girls

Overview: An investigation into the attitude towards happiness among Irish teenage girls.

School: Presentation Secondary School

County: Tipperary

Teacher: John Flynn

Student(s): Aoife Finlay, Dervla Heffernan, Evie Grogan

2557

Title: B12 young scientist

Overview: An investigation into vitamin B12 deficiencies, why they occur and how we as a team can help spread awareness on this topic.

School: Mount Mercy College

County: Cork

Teacher: Aaron O'Sullivan

Student(s): Meabh Hughes, Ann Keohane, Fiona Eustace

2558

Title: Get up, get out and get off your phone! – A tool for schools

Overview: We are creating an app to encourage students to get off their smartphones and spend more time on other aspects of their lives.

School: Loreto College

County: Cavan

Teacher: Michelle Rogan

Student(s): Caoimhe Sexton, Hannah Young

2559

Title: A study of body image and emotional wellbeing perceptions among elite sports women, professional models and teenage girls.

Overview: Our project aims to compare the perceptions of body image and emotional wellbeing among 3 distinct groups of women.

School: St Bricin's Vocational School

County: Cavan

Teacher: Anne-Marie Fay

Student(s): Aisling Flood, Nadine O'Brien, Tara Hegarty

2560

Title: Should All Teens Switch to Black and White Screens?

Overview: We aim to investigate the correlation between the use of colours by social media apps and mobile phone addiction in today's youth.

School: Eureka Secondary School

County: Meath

Teacher: Mary Wright

Student(s): Eimear Sherwin, Aine Matthews, Daniella Onunkwo

2561

Title: How our poor voice perception makes us an unreliable ear witness. An analysis of how successful we are

at identifying physical characteristics from a person's voice.

Overview: We are investigating how good people are at identifying physical characteristics just from hearing a person's voice..... can you put a face to the voice?

School: St. Mary's College

County: Galway

Teacher: Anthony Carey

Student(s): Mircea Tabalae, Cathal Forde

2562

Title: A Statistical Analysis of How Emojis are Affecting Children and Young People's Emotional Literacy.

Overview: To investigate how regular use of emojis on phones/ i-pads etc. affects children and young people's ability to express their emotions verbally.

School: Coláiste Choilm

County: Cork

Teacher: Karina Lyne

Student(s): Emily Cotter, Louise Ambrose

2563

Title: Cookies for Rookies

Overview: Our project idea is based on the concept of cookies, GDPR and internet confidentiality. We wish to create surveys, an animation to educate the people.

School: Colaiste Nano Nagle

County: Limerick

Teacher: Kelly Walsh

Student(s): Lauren Kelly, Buki Adejomehin, Abbey O'Keeffe

2564

Title: An Investigation into whether Kinesio sports tape helps or hinders athletic ability during physical activity

Overview: Our project aims to explore the effect kinesio tape has on the sports performance and comfort of healthy, active individuals during physical activity.

School: St. Louis Secondary School

County: Monaghan

Teacher: Geraldine McCaffrey

Student(s): Tarah Sherlock, Alice Duffy, Abigail Finnegan

2565

Title: A statistical study of the correlation between ground conditions and lower body impact injuries

Overview: We aim to investigate if there is a link between soil conditions and the prevalence of lower body impact injuries in the GAA.

School: Scoil Mhuire agus Ide

County: Limerick

Teacher: Rebecca Phillips

Student(s): Eibhin O'Connor, Emma Donovan

2566

Title: Statistical Analysis Evaluating the Irish Public's Views Towards Government Ability to Solve Current Issues facing Irish Society



Social & Behavioural Sciences

Overview: We are investigating the Irish public's views towards the ability of the government to solve current issues through surveys and investigation into current issues.
School: John The Baptist Community School
County: Limerick
Teacher: James Devereux
Student(s): Jack Gunning, Xiao Yu Liu

2567
Title: Women in Sport: A Study to Investigate and Examine the Most Effective Ways of Keeping Girls Playing Sport Throughout Their Teenage Years
Overview: We'll investigate ways to keep girls playing sport & use our data to develop a programme to educate girls about the benefits of playing sport.
School: Lucan Community College
County: Dublin
Teacher: Clare Healy
Student(s): Faye Murphy, Córa O'Toole, Tara Phelan

2568
Title: A survey to investigate the level of perceived occupational burnout among secondary school teachers in Ireland
Overview: Using qualitative and quantitative data from our survey we will examine the level of reported teacher burnout in Ireland.
School: St Aloysius College Carrigtwohill
County: Cork
Teacher: Angelina Carew
Student(s): Kate Gardiner, Andrea Dunphy, Amy Forrest

2569
Title: Classroom Bullies: Psychological Influence of Heroes
Overview: A psychology study to analyse how teenagers perceive modern day heroes and determine how exposure to hero-type role models affects their outlook on bullying.
School: Sacred Heart Secondary School
County: Cork
Teacher: Claire Holland
Student(s): Anna Flynn, Annie Condon, Katelyn Dineen

2570
Title: Comparing Concussions: An investigation to see if concussions are more prevalent in females or males and why?
Overview: A study to compare males and females across a range of sports to see are females more likely to get a concussion.
School: Coláiste Pobal Bheantraí
County: Cork
Teacher: Cornelia Hourihan
Student(s): Clare Barry, Kate Scully, Rachel Murnane

2571
Title: A statistical analysis of the level of and the reason for non-participation in organised sport in adolescents
Overview: For this project we intend to research what is the strongest factors to influence adolescents in participation/non-participation in organised sports.
School: Loreto Secondary School Fermoy
County: Cork
Teacher: Matilda Miniussi
Student(s): Michelle Caplice, Meghan Carr, Jessie Kelly Morrish

2572
Title: Dyslexia: Learning difficulty or hidden talent?
Overview: An investigation into the link between dyslexia and the recognition of unfamiliar and nonsensical symbols.
School: Bandon Grammar School
County: Cork
Teacher: Maire Flynn
Student(s): Ashleigh Wood, Lucy Quirke, Elspeth McIntosh

2573
Title: Assessing economic activity using waste types and volumes from a recycling centre
Overview: An assessment of the waste volumes and types from a local recycling centre comparing this with Census and other data to identify economic markers.
School: Millstreet Community School
County: Cork
Teacher: Shane Guerin
Student(s): Daniel Buckley, Noah Moynihan

2574
Title: Wake Up Call, Is sleep deprivation the new epidemic for teens?
Overview: Is sleep deprivation the new epidemic for teenagers in modern society? How detrimental is sleep deprivation to teenager's physical and mental development and well-being?
School: Skibbereen Community School
County: Cork
Teacher: Mags Breen
Student(s): Jennifer Keating, Maeve McCarthy, Lucy O'Brien

2575
Title: The Physiological Effects Of Virtual Reality Simulations
Overview: Our aim is to test whether Virtual Reality has the potential to be used to de-stress those in offices, schools and at home.
School: St Aloysius College Carrigtwohill
County: Cork
Teacher: Angelina Carew
Student(s): Caoilfhionn Barry, Maeve Wall, Sarah Roche

2576
Title: Sticks and Stones
Overview: A study to establish whether 'sledding' negatively affects an athlete's performance.
School: Salesian Secondary College, Pallaskenry
County: Limerick
Teacher: Claire Sheehy
Student(s): Joe Sweeney, James Dunworth, Jack Lloyd

2577
Title: Cén fáth nach labhrann déagóirí a bhfuil gaeilge acu, gaeilge sa lá inniú.
Overview: We are investigating why teenagers today have Irish but choose not to use it in social situations.
School: Pobalscoil Ghaoth Dobhair
County: Donegal
Teacher: Siobhan Ní Shearcaigh
Student(s): Gráinne Ní Ghallchóir, Micéal Martin, Daithí Mac Roibeaird

2578
Title: A comparative study of the psychological connection between twins and siblings
Overview: Our project aims to research the possibility of a psychological connection between twins and examine whether or not it could possibly exist between siblings.
School: Seamount College
County: Galway
Teacher: Joanne Martin
Student(s): Maeve Galvin, Max Bonvicsini Bennett, Orlaith Quinn

2579
Title: Sexual consent: A study of teenagers understanding, knowledge and views and a proposal for the Dept of Education
Overview: Investigating adolescents' attitude and understanding towards the issue of sexual consent which has sparked much attention recently and create an educational module.
School: Ursuline Secondary School
County: Tipperary
Teacher: Anne Molony
Student(s): Eva Morrissey, Jade McCarthy

2580
Title: The Big Bingewatch Theory
Overview: A study on the streaming habits of young people and the effects these habits have on long and short term retention of the content watched.
School: Le Chéile Secondary School
County: Dublin
Teacher: Ciara Sheehan
Student(s): Jessica Odemena, Niamh O'Connor, Róisín Gleeson

2581
Title: Could music choice influence athletic performance?
Overview: Our project aims to investigate whether different genres of music quantitatively affects cardio

speed or time and weight lifting reps.
School: Cistercian College
County: Tipperary
Teacher: Lesley Cox
Student(s): Dylan Keane, Eoghan Matthews, Ryan Moran

2582
Title: A statistical analysis of women's attitude to smear tests in wake of the cervical cancer scandal
Overview: A survey to get statistics on the public's opinion on screening for cervical cancer (smear test) and has the recent scandal affected their trust in it.
School: Coláiste Choilm
County: Cork
Teacher: Karina Lyne
Student(s): Aimee Desmond, Isobel Sheehan

2583
Title: To investigate if Irish teenagers can acquire Irish Sign Language faster than Spanish
Overview: We will teach teenagers words and sentences in ISL and Spanish investigating if 24 hours later one has been remembered better than the other.
School: Maria Immaculata Community College
County: Cork
Teacher: Bernadette O Connor
Student(s): Chloe Lucey, Rosie Hockaday, Ciara Monks

2584
Title: Aithníonn ciotóg ciotóg eile
Overview: Our project aims to study the difference between left and right side dominance exclusivity in everyday tasks. We will see if practice can improve dexterity and hand dominance, and whether there is a correlation between age and gender.
School: Gaelcholaiste Na Mara
County: Wicklow
Teacher: Rebecca Ní Chonchúir
Student(s): Hannah Joung, Caitín Ní Shé, Cáit Ní Leatheasa

2585
Title: Does participation in Transition Year translate to better Leaving Certificate results?
Overview: An investigation to determine whether people who participate in transition year engage better with the Leaving Certificate examinations and thus achieve better grades.
School: Loreto Secondary School
County: Kilkenny
Teacher: Brendan Williams
Student(s): Shalom Oyenuga, Isabel Gill, Aoife Mulhall

2586
Title: Something to chew on
Overview: An investigation into whether students should be allowed to chew gum during class to see if memory skill, test results and



attentiveness improves.

School: Bandon Grammar School

County: Cork

Teacher: Carena McCarthy

Student(s): Atia Vivian,
Stephanie French

2587

Title: Born to be real not to be perfect
– An Investigation into whether the pressures and influences on physical appearances have changed in the last 20 years.

Overview: Our project aims to investigate teenagers and adults attitudes in relation to their physical appearance.

School: Boherbue Comprehensive School

County: Cork

Teacher: Sinead Horgan

Student(s): Michelle Twomey, Rosie Daly

2588

Title: Have the changes made to the Junior Cycle science curriculum led to an increase in the ability of students to see flaws or mistakes in a scientific study?

Overview: We will investigate if current 3rd year students are better equipped to see flaws in studies thanks to the new curriculum.

School: Presentation College

County: Galway

Teacher: John Toner

Student(s): Adam McPadden,
Ava Kantti, Pawel Blok

2589

Title: To Investigate the effect of technology on students.

Overview: To investigate the amount of time spent on phones and we would like to develop an app to get people doing something productive like studying.

School: Scoil Mhuire Kanturk

County: Cork

Teacher: Aidan Noone

Student(s): Matas Karanavicius,
Donal Jones

2590

Title: Farmer Finder

Overview: In the unfortunate event of an accident occurring, Farmer Finder aims to provide protection to those who work alone in the farming sector.

School: St Anne's Community College

County: Clare

Teacher: Greta Hogan

Student(s): Adam Fogarty,
Elise McWee, Sarah McKeogh

2591

Title: Minorities in the Media

Overview: A study into the representation of minority groups in the media and whether it has an affect on said minorities.

School: Salesian Secondary College,
Pallaskerry

County: Limerick

Teacher: Claire Sheehy

Student(s): Niamh Cusack,
Caoimhe Carey

2592

Title: Decreasing childhood obesity
Overview: To determine whether or not putting a friendly design on a kids menu will persuade children to pick a healthier option.

School: Mohill Community College

County: Leitrim

Teacher: Eileen Nertney

Student(s): Darragh Boyce,
Hugh Boyce, Erica Ridge

2593

Title: Tick Tock concentration clock!

Overview: My project aims to find the best possible class structure to maximize concentration in students.

School: St Francis Capuchin College

County: Cork

Teacher: Nicola Barry

Student(s): Ian Burke,
Tom Ring, Cian Ahern

2594

Title: The Placebo Effect of Coffee

Overview: Caffeine is sold as an energy-giving beverage, but is it all in our heads? An experiment to measure the placebo effect of caffeine.

School: Rathdown School

County: Dublin

Teacher: Sallie Kennedy

Student(s): Saoirse Keogh Nevin,
Grace Sandys

2595

Title: Forlíontaí Próitéin: Measúnú ar Eolas, Iompraíochtaí agus Dearcaí i measc Mic Léinn na Meánscoile.

Overview: Aidhm ár dtionscadal – measúnú a dhéanamh ar leibhéil eolais, dearcaí agus iompraíochtaí mic léinn meánscoile i dtreo forlíonadh próitéine agus comparáid le fianaise foilsithe.

School: Coláiste Eoin

County: Dublin

Teacher: Gionnaith Ó Dubhthaigh

Student(s): Breandán Ó'Conaill,
Seosamh MacBriain

2596

Title: An investigation into the attitudes of Irish adolescents towards the Me Too movement and what constitutes as sexual harassment

Overview: We plan to discover what attitudes are held by Irish teenagers in relation to the Me Too movement and what constitutes as sexual harassment.

School: Ursuline Secondary School

County: Cork

Teacher: Niamh Murphy

Student(s): Eva Mc Donnell,
Kelli Oldham, Michelle Board

2597

Title: Recession Calculator: A study into the effects and causes of past and recent recessions

Overview: We are comparing the effects and causes of past and recent recessions and will attempt to predict if there will be another recession.

School: Colaiste Mhuire

County: Westmeath

Teacher: Eva Acton

Student(s): Mark Cairns,
Jamie O'Reilly

2598

Title: How restriction of social media and electronic devices impacts on the mental and physical well-being of teenage girls.

Overview: To investigate the effects that social media and the usage of mobile phones has on teenage girls, ranging between twelve and sixteen.

School: Loreto Abbey Secondary School

County: Dublin

Teacher: Aideen Lambe

Student(s): Lara Reid,
Sadbh O'Farrell, Kate O'Leary

2599

Title: First impressions

Overview: We will investigate negative biases against overweight individuals by carrying out surveys on students regarding first impressions with the help of Bandon grammar science department.

School: Bandon Grammar School

County: Cork

Teacher: Carena McCarthy

Student(s): Ben O'Regan,
Chris Walton

2600

Title: H2O – The only equation you need: The importance of hydration for cognitive ability.

Overview: The aim of this project is to determine if there is a correlation between water consumption and how participants perform in a basic-timed maths test.

School: St Joseph's Secondary School

County: Dublin

Teacher: Daryl Dunne

Student(s): Kevin Attley,
Mark Grimes

2601

Title: Environmental Awareness

Overview: Our project is a social experiment concerning what people would be willing to do and changes they would make to protect and preserve our environment.

School: Cnoc Mhuire

County: Longford

Teacher: James Dawson

Student(s): Ellen Deneher,
Siobhan Tully

2602

Title: An Examination of Racist Attitudes Among Teenagers in Ireland
Overview: A research-based project examining variations in racist attitudes among young people in

Ireland, accounting for age, gender and regional differences.

School: Presentation Secondary School, Castleisland

County: Kerry

Teacher: Orlaith Walsh

Student(s): Siobhán Brosnan,
Cáit O' Mahony, Ellen Dennehy

2603

Title: There's 2 sides to every story: A study of Social Conformity and Groupthink theory

Overview: Our study aims to highlight how easily people's opinions can become radicalised, or changed in the opposite direction, based on their group setting.

School: St Joseph's Secondary School

County: Dublin

Teacher: Daryl Dunne

Student(s): Katie Attley,
Elle Young, Charly Smullen-Foley

2604

Title: Does Practice Really Make Perfect?

Overview: Our project aims to find out if the saying "practice makes perfect" is really true.

School: Scoil Mhuire gan Smál

County: Roscommon

Teacher: Anne-Marie Callaghan

Student(s): Nessa Madden,
Emma Mannion

SENIOR GROUP

2700

Title: Is being physically active a clever idea? A statistical analysis of the correlation between academic success and physical activity.

Overview: To investigate if there is a correlation between academic success and physical activity, specifically Fundamental Movement Skills (FMS), in young adolescent males.

School: St Mary's Knockbeg College

County: Carlow

Teacher: Rachel Hott

Student(s): Oisín Chelmiah,
Luke Conroy

2701

Title: Leaving Cert Computer Science: Who chooses it and why?

Overview: We want to investigate who chooses Computer Science for their Leaving Certificate and why.

School: Coláiste Phádraig

County: Dublin

Teacher: Kevin Carey

Student(s): Mustakim-Ul Haque,
Evan Reihill, Ben McCarney

2702

Title: A study into the effectiveness of teaching farm safety skills to young children by integrating different teaching pedagogies into a children's storybook.

Overview: We incorporated pedagogical methods into a farm safety storybook. No such book exists.



Social & Behavioural Sciences

This project makes children safer and collects valuable information on near misses.

School: C.B.S. Secondary School

County: Kerry

Teacher: Maire Fitzgerald

Student(s): Michael Carroll, Michael Kirby, Padraig Creadon

2703

Title: The impact of closing post offices in rural Ireland

Overview: We are going to complete a survey to gather information to find out how the closure of post offices will affect people in rural Ireland.

School: Scoil Mhuire gan Smál

County: Roscommon

Teacher: Anne-Marie Callaghan

Student(s): Nicole Burke, Ciara Conlon

2704

Title: An investigation into Character Formation and the factors that influence it

Overview: We aim to research personality and the factors that affect it, we also hope to investigate how much of your personality you control.

School: Colaiste Pobail Setanta

County: Dublin

Teacher: Laura Kelly

Student(s): Radi Adil, Dennis Ukandu

2705

Title: Is the Leaving Certificate Fair?

Overview: A statistical analysis on the inconsistencies of the Leaving Certificate bell curve grading system and its effects on student subject

choice and performance.

School: Scoil Mhuire

County: Clare

Teacher: Sue-Ann Sheridan

Student(s): Lara Mellett, Niamh McMahon

2706

Title: How social media affects teenage girls' body image

Overview: We look at how social media negatively affects teenage girls' body image. We look at how social media influencers using photo-shop creates unrealistic beauty standards.

School: Castlecomer Community School

County: Kilkenny

Teacher: Robert Morris

Student(s): Susan Nolan, Vanessa Brennan, Katie Clarke

2708

Title: An investigation of how the bi-annual clock change affects the Irish population.

Overview: The Irish government has proposed to stop the bi-annual clock change by 2021, we want to know if this should be done or not.

School: Lucan Community College

County: Dublin

Teacher: Clare Healy

Student(s): Gabriele Kolesnikovaite, Daniel Kolesnikovas

2709

Title: An Investigation into the meaning, uses and effects of unconscious bias in modern society

Overview: Our project aims to find out and raise awareness of how unconscious bias affects people in modern society and its consequences.

School: Deele College

County: Donegal

Teacher: Evin Devenney

Student(s): Isaac Stowe, Conor Wilson

2710

Title: Imscrúdú a dhéanamh ar Eacnamaíochta Iompraíochta de Claontaí Fo-Chonsneacha i gCinntí Tomhaltóirí

Overview: Imscrúdú ar chlaonadh fo-chomhfhiosach agus conas a chuireann sin i bhfeidhm ar chinntí tomhaltóirí.

School: Gaelcholáiste Chiarraí

County: Kerry

Teacher: Tríona Uí Mhaolchatha

Student(s): Leah Ní Sheanacháin, Sarah Ní Gerailt

2711

Title: Mental Health in LGBT People

Overview: We aim to investigate if LGBT people have higher rates of mental health issues and investigate the factors for those higher mental health issue rates.

School: Cabinteely Community School

County: Dublin

Teacher: Aoife O'Rourke

Student(s): Conor Slevin, Laura Cannon Fox

2712

Title: A Statistical analysis of Ireland's dependency and misuse of non-

prescription codeine containing medicines.

Overview: The aim of our project is to examine and raise awareness of the potential risk of misuse and dependency of non-prescription codeine containing medicines.

School: Colaiste Phobáil Rós Cré

County: Tipperary

Teacher: Sarah Kirwan

Student(s): Aine Gleeson, Kelly Feehan

2713

Title: The Impact of Exposure to Ethnic Music on Cultural Attitudes

Overview: We are investigating if exposing people to ethnic music can have an effect on their opinion of people of that ethnicity.

School: Loreto Secondary School, Balbriggan

County: Dublin

Teacher: Niamh Mc Nally

Student(s): Kate O'Driscoll, Delia Istoc

2714

Title: The Quantitative After-Effects of Awareness Campaigns

Overview: An investigation on the ramification of awareness campaigns on the human mind and consciousness.

School: Ballinode College

County: Sligo

Teacher: Angela Woolley

Student(s): Robert Matczak, Shane Parkes

Looking for a specific project?

Check the **2019 PROJECTS - QUICK SEARCH** on pages 10 - 13 or download our app!

Biological and
Ecological Sciences

1100 - 1617

Social and Behavioural
Sciences

2100 - 2714

Chemical, Physical and
Mathematical Sciences

3100 - 3608

Technology

4101 - 4611

Get the app

Get all the latest information about the exhibition, events and updates direct to your mobile, absolutely free!

Features include Interactive Exhibition Map, Getting Here, Search Student Projects, Schedule of Events, Social Network, Awards, History, Past Winners, Photo Gallery and more...

www.btyoungscientist.com/btyste-app



Download on the
App Store



GET IT ON
Google Play



JUNIOR INDIVIDUAL

3100

Title: Discourse and proof of the Perelman-Hamilton theorem solving the Poincaré Conjecture

Overview: This project is a proof of the Perelman-Hamilton solution to the Poincaré Conjecture. It uses Dr. Perelman's formula with absolute values to prove the hypothesis.

School: St Andrew's College

County: Dublin

Teacher: Emma Buckley

Student(s): Matthew O'Regan

3101

Title: The Mystery of the Killiney Beach Amber

Overview: My project aims to identify the object I found, two days after Storm Ophelia, on Killiney Beach. Could it be genuine amber?

School: St Gerard's

County: Wicklow

Teacher: John Reidy

Student(s): Ethna Vondrys

3102

Title: Machine Learning To Predict Arrow Aerodynamics

Overview: Based on experimental data, I am using machine learning techniques to predict the range of any arrow shot from a bow.

School: Presentation College

County: Galway

Teacher: Kenneth O'Dea

Student(s): Samuel Regan

3103

Title: The Acidity of Sugary Drinks and their Correlation to Bacteria Levels

Overview: Test the level of acidity in saliva at different intervals after drinking sugary drinks.

School: Loreto College

County: Dublin

Teacher: Jamie Bain

Student(s): Nora Beth Collins

3104

Title: The Link between Cubic Polynomials and Origami

Overview: I will be finding out how to solve equations involving cubic polynomials using origami, the Japanese art of paper folding.

School: Coláiste Phádraig

County: Dublin

Teacher: Kevin Carey

Student(s): Jasper Nolan

3105

Title: The ability of different indigestion tablets and traditional remedies to neutralise stomach acid

Overview: I am going to look at both traditional and over the counter remedies for heart burn and see which ones work best.

School: Coláiste Lorcáin

County: Kildare

Teacher: Fiona Searing

Student(s): Cassie Cullen

3106

Title: Can Recycled Bricks Solve Housing Crisis?

Overview: This project recycles plastic by melting it and mixing it with sand to create a light, strong and durable building block.

School: Marist College

County: Westmeath

Teacher: Cian O'Brien

Student(s): Dónal McDermott

3107

Title: Will white wine remove red wine stains from clothing? – an investigation into the reaction which occurs when white wine is rubbed into a red wine stain.

Overview: An investigation into the reaction between a red wine stain and white wine, analyzing the pH and colour change when the two substances are mixed.

School: Carndonagh Community School

County: Donegal

Teacher: Peter White

Student(s): Ciara Gilmore

3108

Title: An Investigation into the number of Regular Shapes vs. Number of Irregular shapes with 12 sides or less that can be constructed by the use of Euclidean Geometry

Overview: An investigation into regular and irregular shapes using Euclidean geometry (a branch of mathematics that uses only a straight edge and a compass) and algebra.

School: Colaiste Dun an Rí

County: Cavan

Teacher: Helen Keenan

Student(s): Charlie Clavin

3109

Title: VISIONsystems (Visual Impairment Supporting Interactive Optical Navigating systems) That are Powered by Solar Energy and Thermoelectric Cooling

Overview: My project will help the visually impaired to navigate using ultrasound and is powered by solar and thermoelectric energy.

School: Dundalk Grammar School

County: Louth

Teacher: Shane Lynch

Student(s): Solomon Doyle

3110

Title: Testing the hydrostatic head and breathability of different raincoat material

Overview: My project aims to find the best coat by testing the hydrostatic head and breathability and using that knowledge to design an optimum coat.

School: St Andrew's College

County: Dublin

Teacher: Emma Buckley

Student(s): Mark Speer

3111

Title: Investigating the health risks of wearing contact lenses

Overview: Dry-eye and eye-infections in contact-lens wearers is increasing. This project investigates the evaporation rates and antibacterial effects of various contact lens solutions and eye drops.

School: St Mary's College

County: Londonderry

Teacher: Ann Blanking

Student(s): Analise Mc Nicholl

3112

Title: Identifying dehydration in saliva

Overview: My project will consist of investigating dehydration by looking at people's saliva through an electrode.

School: Coláiste Ailigh

County: Donegal

Teacher: Shane Ó Breacáin

Student(s): Clodagh O' Connor

INTERMEDIATE INDIVIDUAL

3200

Title: From the Margins to the Middle: A Mathematical Analysis of the Evolution of Rhythmic Cadence in Rap Music

Overview: Examining the evolution of rhythmic cadence in rap music from its roots as a marginal music genre through to its popularisation in mainstream music.

School: Jesus & Mary Secondary School

County: Sligo

Teacher: Luke Saunders

Student(s): Matthew Blakeney

3201

Title: Investigation of the levels of hidden aldehydes and ketones in e-liquid when heated

Overview: My project tested for aldehydes and ketones in e-cigarette liquid both before and after heating to several different temperatures as would happen in an e-cigarette.

School: Tullamore College

County: Offaly

Teacher: Elaine Howlin

Student(s): Liadhan Murray

3202

Title: Investigating a method that can be used to determine the active ingredients in medications using 2 homemade spectrophotometers

Overview: There's doubt about the content of cheap, Internet-bought medications. This project investigates methods to determine their content using comparable shop-bought medications using two home built spectrophotometers.

School: St Mary's College

County: Londonderry

Teacher: Ann Blanking

Student(s): Ava Canney

3203

Title: Using Plate and Photo Programs To Create a Catalogue of HII Regions

That Have Been Misidentified as Galaxies on the SDSS Database

Overview: I shall reclassify misidentified HII regions, by creating a catalogue of these regions and upload this to the SDSS database so that others may use it.

School: Coláiste Chiaráin

County: Limerick

Teacher: Edel Farrell

Student(s): Hannah Lucey

3204

Title: Do different kitchen surface materials differ in their capacity to retain surviving microbial populations after surface cleaning?

Overview: My project aim is to test different kitchen surface materials and cleaners and determine if there's a difference in their ability to sustain microbial growth.

School: Coláiste Chiaráin

County: Limerick

Teacher: Edel Farrell

Student(s): Ellie Cunneen

3205

Title: Echolocation

Overview: Investigating the use of echolocation to determine the nature/shape/distance of reflecting surfaces and the possibility of developing an app to aid the visually impaired.

School: Loreto College Coleraine

County: Londonderry

Teacher: Maeve Close

Student(s): Fiyinfoluwa Owolabi

3206

Title: The Mathematics of Origami

Overview: I wish to investigate the mathematics behind the ancient Japanese art of paper folding - origami.

School: St Aloysius School

County: Cork

Teacher: Katie O'Donovan

Student(s): Sarah Lane

3207

Title: Finding Patterns In Prime Numbers Using The Collatz Conjecture

Overview: In this project I plan to find a pattern in Prime Numbers using The Collatz Conjecture.

School: Castletroy College

County: Limerick

Teacher: Ellen Murnane

Student(s): Jim Keane

3208

Title: Colorimetric Indicator for Early Screening of The Celtic Curse.

Overview: I will be investigating a method of discovering a colorimetric skin test indicator for early screening of haemochromatosis.

School: Pobalscoil Iosolde

County: Dublin

Teacher: Lynda Jordan

Student(s): Áine Measey



Chemical, physical & mathematical sciences

3209

Title: A Pint of the Black Stuff: Ultrasound assisted hydrothermal liquefaction of microalgae to produce renewable jet fuel

Overview: Determining the optimum temperature and pressure at which hydro-thermal liquefaction outputs jet-fuel, and analyzing the effects of ultrasound for agitation and ethanol for hydrogen donation.

School: Bandon Grammar School

County: Cork

Teacher: Carena McCarthy

Student(s): Greg Tarr

3210

Title: An Investigation Of How Mathematical Number Sequences End.

Overview: This research project investigates how using varying mathematical number sequences it can be discovered whether the series ends in: a finite number of terms with a 1, reduces to a single digit number (not 1) or enters a cycle or a loop in which a finite set of integers continue to repeat.

School: Our Ladys College

County: Louth

Teacher: Frances O'Regan

Student(s): Omnia Kharief

3211

Title: Gecko Grip

Overview: I will investigate the phenomenon of the Gecko's grip on surfaces using Velcro as an experimentation medium, measuring detachment force in parallel and perpendicular axis.

School: Loreto College Coleraine

County: Londonderry

Teacher: Katrina Brolly

Student(s): Cheyanne Corbett

3212

Title: Investigating the effect of activated charcoal on the absorbance of a range of medicines

Overview: Activated charcoal pills taken orally have become popular to 'purify the system'. This project investigates its effect on the absorbance of medications also taken orally.

School: St Mary's College

County: Londonderry

Teacher: Ann Blanking

Student(s): Maeve Stillman

3213

Title: Using the idea behind Vitruvian Man as a non-invasive identifying diagnostic tool for scoliosis.

Overview: I want to use the ideas of proportionality suggested by the theory behind Vitruvian man as a potential non-invasive method for diagnosing scoliosis.

School: St Aloysius College

County: Carrigtwohill

Teacher: Angelina Carew

Student(s): Jane Cowhey

3214

Title: Searching for a Simple Satellite Solution

Overview: Investigating the optimum design for a small satellite by examining aerodynamics; measuring mass to velocity ratio in a vacuum; developing a prototype small satellite.

School: Coláiste an Chraoibhin

County: Cork

Teacher: Cathrena O'Keeffe

Student(s): Sam Dunning

3215

Title: Natural Geometry - An extension of Alfred Meyer's 1878 'Floating Magnets' experiment.

Overview: An extension of Alfred Mayer's 1878 famous 'Floating Magnet' experiment from 20 to 100 floating magnets. All geometrical shapes recorded and angles measured.

School: St Joseph's College

County: Dublin

Teacher: Declan Doherty

Student(s): Niamh Doherty

SENIOR INDIVIDUAL

3300

Title: An Eggshell Filtration System to Remove Pollutants from Water

Overview: This project investigates the adsorbent properties of eggshells, and their potential to develop a filtration system to remove pollutants from water, for the developing world.

School: Avondale Community College

County: Wicklow

Teacher: Aoife Sullivan

Student(s): Seán Byrne

3301

Title: Structural Patterns In Solutions To The Erdős-Straus Conjecture For Certain Primes

Overview: I have found evidence of structural patterns in the solutions to the Erdős-Straus Conjecture for primes. I have also formulated three identities for certain primes.

School: Coláiste Choilm

County: Cork

Teacher: Paudie Scanlon

Student(s): Ciarán Cotter

3302

Title: The investigation into heart rate and calorie count of a smartwatch

Overview: My project aims to find out the accuracy of a smartwatch relating to heart rate and energy expenditure during exercise.

School: Loreto College

County: Dublin

Teacher: Eleanor Kennedy

Student(s): Eva Himpers

3303

Title: Improving Cervical Cancer

Screening with Artificial Intelligence

Overview: This project will investigate the use of computer vision algorithms in cervical cancer screening to improve the accuracy of the screening.

School: Mount Mercy College

County: Cork

Teacher: Aaron O'Sullivan

Student(s): Laura O'Sullivan

3304

Title: An Extension of Newton's N-Body Problem

Overview: A new exactly-solvable many body problem is described. The new exact solution is used to assess the performance of various numerical algorithms and program codes.

School: Synge Street CBS

County: Dublin

Teacher: Elaine Egan

Student(s): Benedek Goz

3305

Title: The Future of Quantum Computing: An Investigation into the Algorithms and Applications of Quantum Computing

Overview: To investigate quantum computing and how it may be applied in the future by running quantum programs and assessing the capabilities of quantum computing.

School: Scoil Mhuire gan Smál Blarney

County: Cork

Teacher: Elaine Keane

Student(s): Sarah Sweeney

3306

Title: Optimizing The Simulation Of General Quantum Circuits

Overview: This project uses state-of-the-art developments in the simulation of quantum circuits to develop an approach to optimally simulate an arbitrary quantum circuit.

School: Skerries Community College

County: Dublin

Teacher: Aishling Lynch

Student(s): Adam Kelly

3307

Title: Intersection of Multidimensional Planes in Projective Geometry

Overview: Investigation of the intersection of multidimensional planes in projective spaces of higher dimensions and try to obtain elementary proofs for certain theorems in Schubert's Calculus.

School: Alexandra College

County: Dublin

Teacher: Patrick Cushen

Student(s): Tianyiwa Xie

3308

Title: Technical analysis line equations and algorithms

Overview: I designed a group of equations, manipulating them into algorithms functioning as stock metrics that currently (I think) are more accurate than all fundamental analysis.

School: Blackrock College

County: Dublin

Teacher: Emer O'Reilly

Student(s): John Huggard

3309

Title: An investigation into whether coagulant agents such as Aluminium sulfate can facilitate the removal of plastic from the ocean/sea.

Overview: The basis of my project is to investigate if aluminium sulfate, a chemical used in water treatment, can aid the removal of plastic from water.

School: Franciscan College

County: Meath

Teacher: Pauline Murphy

Student(s): Dammy William Sanusi

3310

Title: Flipping Physics

Overview: An investigation into the physics of the 'water bottle flip' and its applications in rotating liquid or granular solid systems.

School: Loreto College Coleraine

County: Londonderry

Teacher: Maeve Close

Student(s): Dónal Close

3312

Title: "Helping Hemp Heal; The Design Of A Nano-Formulation To Increase The Absorption Of Cannabidiol In The Gastro-Intestinal Tract"

Overview: Cannabidiol is poorly absorbed. My hypothesis is to develop a nano-formulation of hemp oil and surfactants to enhance the absorption of Cannabidiol in the gastro-intestinal-tract.

School: Kinsale Community School

County: Cork

Teacher: Shaun Holly

Student(s): Jennifer McCarthy

3313

Title: Collatz Conjecture

Overview: I will try to prove/solve the Collatz Conjecture.

School: Coláiste Phádraig

County: Dublin

Teacher: Eamonn Todd

Student(s): Rising Oli

3314

Title: Flippin' great: investigating the physics behind the bottle-flipping trick

Overview: The project investigates how the amount of volume inside a bottle will affect its chances of landing upright when it is flipped.

School: Regent House School

County: Down

Teacher: Kevin Quinn

Student(s): Callum Barbour

3315

Title: An Investigation Into The Minimum Criteria Necessary For Light To Be Gravitationally Lensed Around A Body

Overview: I am studying what minimum conditions are required for bodies to bend light around themselves via the curvature of spacetime.

School: Coláiste Choilm



County: Cork
Teacher: Paudie Scanlon
Student(s): Seán O'Donoghue

3316

Title: Alzheimer's in our Water: A Comparative Investigation of Copper Concentrations in Tap Water when carried through a Copper Piping System vs. a Polyethylene piping system.

Overview: Examining copper concentrations in our tap water which, when elevated, can cause a build-up of β -amyloid plaques in the brain, a hallmark of Alzheimer's disease.

School: Scoil Mhuire Kanturk

County: Cork

Teacher: Aidan Noone

Student(s): Daragh Healy-Fitzgerald

3317

Title: Categorising CVD patient risk using machine learning tools

Overview: To classify the risk level (EUROSCORE) of CVD patients utilising the Python Programming Language. This is done through the Orange, Sklearn and NumPy Libraries.

School: Holy Cross College

County: Tyrone

Teacher: Siobhan Quinn

Student(s): Oran Timoney

3318

Title: Investigating the Properties of Electromagnetic Waves Using Polarising Filters

Overview: This project aims to assess both mathematically and experimentally what properties of waves of light are affected (or remain unaffected) by the process of polarisation.

School: Skerries Community College

County: Dublin

Teacher: Aishling Lynch

Student(s): Sam Enright

JUNIOR GROUP

3400

Title: Synthesis and Analysis of Biodegradable Polymers Enhanced with Organic Waste

Overview: Plastics are having a negative impact on our lives, fish and ocean-life. Our project aims to make an alternative bio-degradable plastic using keratin.

School: Desmond College

County: Limerick

Teacher: Donal Enright

Student(s): Orla Mullane, Lucy Flaherty

3401

Title: A Fourier Analysis of Mathematical Wave Patterns in Irish Dancing

Overview: We want to investigate if there are similar rhythmic core patterns that exist in the mathematical wave lengths in jigs and

hornpipes in Irish dancing.

School: St Vincent's Secondary School

County: Louth

Teacher: John White

Student(s): Cara Preston, Ciara Reilly

3402

Title: Carbon Latte, Do you want metal with that: An investigation in the removal of heavy metals from waste water by reduced graphene oxide (rGO) carbon foams

Overview: The project aim is to investigate whether rGO carbon foams offer an effective way of removing heavy metals from waste waters.

School: Coláiste Ailigh

County: Donegal

Teacher: Rosa Nic Lochlainn

Student(s): Tiarnán O'Fearail, Eunan Ó Gallachoir

3403

Title: What makes Dublin shake?

Overview: Every Friday our school's seismometer records a seismic signal at approximately 14:30. Our goal is to find out what causes this signal.

School: St. Kilian's German School

County: Dublin

Teacher: Tírel Celine

Student(s): Roan Batard,

Ethan McQuaid,

Marilou Gerbelot-Barillon

3404

Title: Intersections of Sequences of Polygonal Numbers

Overview: Certain sequences of numbers ("polygonal numbers") are associated with regular shapes. We have developed a method for finding numbers common to two different sequences.

School: Synge Street CBS

County: Dublin

Teacher: Martha Nolan

Student(s): Dhruv Bhamidipati,

Elvin Lucaci

3405

Title: Bioplastics: An alternative use for milk

Overview: Our project is designed to make plastic out of milk and to carry out experiments to see which bioplastic is the most suitable.

School: Coláiste Mhuire Co-Ed

County: Tipperary

Teacher: Maggie Smith

Student(s): Katie McCarthy, Róisín Ryan

3406

Title: Quantifying the antioxidant levels in wheatgrass juice to determine its suitability for preventing diseases caused by free radicals produced in the body.

Overview: We aim to quantify the levels of antioxidants in wheatgrass juice compared to other superfoods known to contain antioxidants to determine suitability for preventing diseases.

School: Creagh College

County: Wexford

Teacher: Enda Gallagher

Student(s): Charlotte Gray,

Lauren Paisley

3407

Title: How efficient is algae as a fuel compared to other fuels?

Overview: Our project aims to obtain the calorific value of algae and compare it to the calorific value of other fuels.

School: Cross And Passion College

County: Kildare

Teacher: Eleanor Higgins

Student(s): Hugo Langan,

Matthew English

3408

Title: A Statistical Analysis of St. Swithins Day

Overview: A statistical analysis of St. Swithins day - is the myth true?

School: Desmond College

County: Limerick

Teacher: Aoife Culhane

Student(s): Rebecca Enright, Emma O Shea

INTERMEDIATE GROUP

3500

Title: Smart Electric Fence

Overview: We plan to develop a device to cut off an electric fence, should an animal be trapped and repeatedly shocked which may lead to death.

School: Athlone Community College

County: Westmeath

Teacher: Martina Roache

Student(s): Irene Finnerty,

Aoife O'Neill, Aoibhe Lennon

3502

Title: Is It Possible to Create a Mathematical Model to Predict Photopollution Based on Population Density in Munster?

Overview: To determine if there is a correlation between population density and photopollution, if so, can we create a mathematical model to predict it?

School: Pobalscoil Inbhear Scéine

County: Kerry

Teacher: Sarah Abbott

Student(s): Conor Casey,

Hannah Coombs

3504

Title: Investigating various plastic bottled drinks for the presence of microplastics

Overview: This project investigates various soft drinks that are bottled in plastic bottles for the presence of microplastics.

School: St Mary's College

County: Londonderry

Teacher: Ann Blanking

Student(s): Cora Nicholl,

Grace Canning, Victoria Fitzpatrick

3505

Title: Hard Water Heating - Energy Consumption

Overview: We intend to evaluate the energy used in household water heating appliances in hard water areas using the heating effect of an electric current.

School: Loreto Secondary School

County: Kilkenny

Teacher: Brendan Williams

Student(s): Maria Godden, Olive O'Keeffe, Sophia O'Shea

3506

Title: Investigation into appearance of

Fibonacci sequence in water vortexes

Overview: We aim to induce a water vortex in a controlled environment, so that it can be analysed for the presence of the Fibonacci sequence.

School: St. Joseph's Secondary School

County: Clare

Teacher: Anthony Guilfoyle

Student(s): Senan Tubridy,

Liam Blake, Damien Devereaux

3507

Title: Investigating ways of removing from water nanoparticles originating from sunscreens

Overview: Nanoparticles from sunscreens (TiO₂ and ZnO) are being washed into waterways and adversely affecting the environment. This project investigates ways of removing them from the water.

School: St Mary's College

County: Londonderry

Teacher: Ann Blanking

Student(s): Ines Mc Caul Prazeres, Amy Hutcheon

3508

Title: Searching For Strife - are online content providers directing us towards negative content

Overview: We wish to test, using statistical methods and automated data gathering, whether online search algorithms, like those used by YouTube, are directing people towards negative content.

School: Sandford Park School Ltd

County: Dublin

Teacher: Dana Kilroy

Student(s): Rachel Doyle, Aoife Espey

3509

Title: Does caffeine affect performance?

Overview: Our project aims to measure whether caffeine has a linear effect on cognitive function or after a certain amount it loses effectiveness.

School: Bush Post Primary School

County: Louth

Teacher: Gary Galvin

Student(s): Declan Crilly, Joey Gillen

3510

Title: Overtone Singing, Can Anyone Do It?

Overview: Can you sing two notes at once? We are going to attempt it and discover the science of how this

2019

It Starts Here



www.btyoungscientist.com



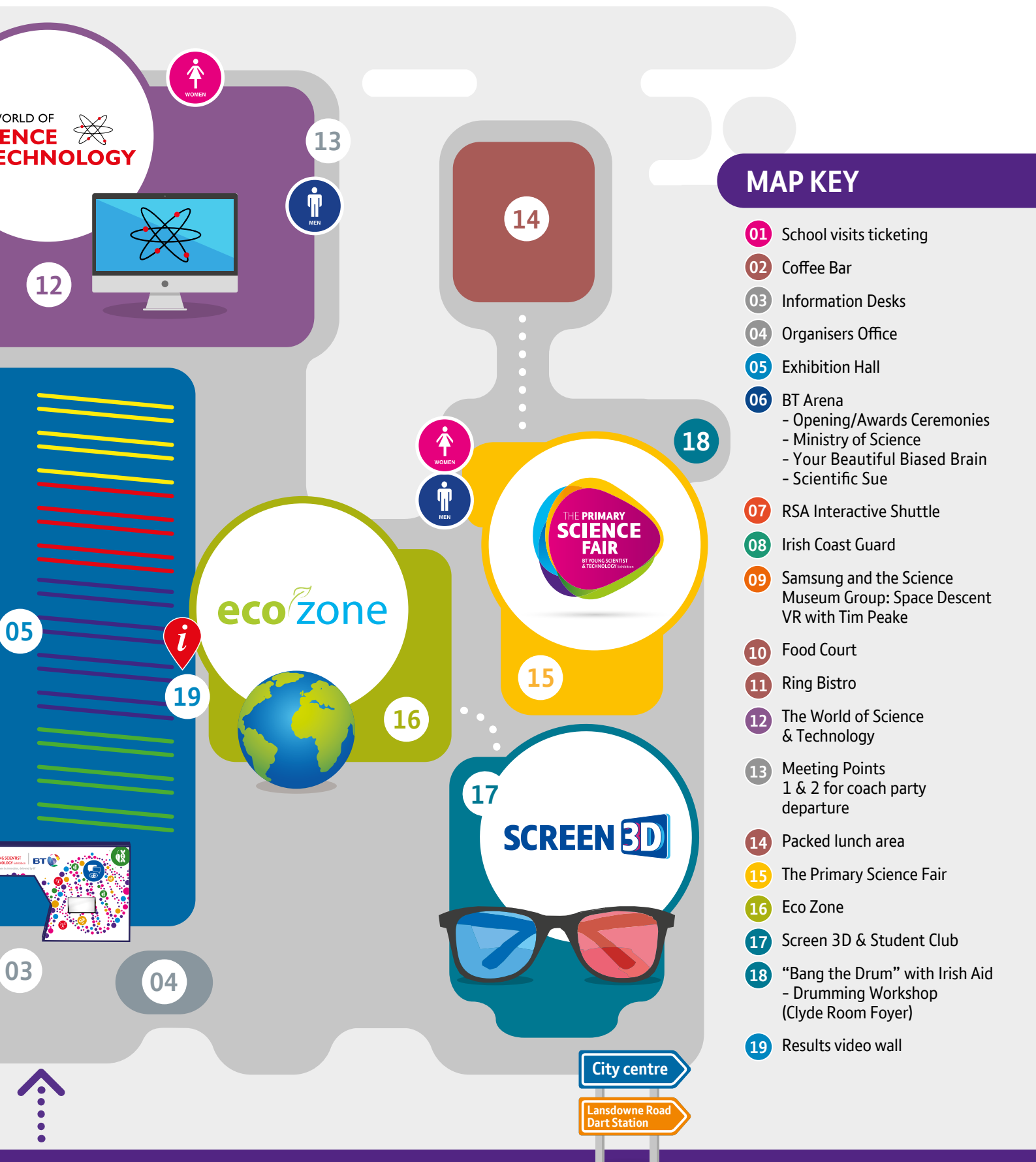
08



07



ENTRA
FROM





Chemical, physical & mathematical sciences

phenomenon is possible!

School: St Mary's High School

County: Cork

Teacher: Niamh Jones

Student(s): Maisie Mould, Eirinn Casey, Katie Burke

3511

Title: Electrolytic

Overview: An experiment to investigate the conductivity of citric acid and other solutions in electrolysis to see if there is a more environmentally friendly approach.

School: Loreto High School

County: Dublin

Teacher: Susan Keady

Student(s): Aoife Croke, Julie Moran

3512

Title: How healthy are alternative sausages compared to the traditional pork sausage.

Overview: We will investigate the protein, fat, salt and taste of various sausages to compare the nutrient value of the different sausages available today.

School: C.B.S. Roscommon

County: Roscommon

Teacher: Breege Grennan

Student(s): Darragh Hynes, Aaron Glennon, Ben Hoare

3513

Title: Do you take your tea with plastic? A chemical analysis investigating MICROPLASTICS within a variety of tea bags and the consequences this has on compost development and quality.

Overview: To investigate the presence of microplastics within a variety of tea bags and examine the possible consequences this has on compost development/quality as a result.

School: Pobalscoil Neasain

County: Dublin

Teacher: Gemma Buicke

Student(s): Sophie Kelly, Karl Fitzpatrick, Rachelle Biayi

3514

Title: Measuring the effectiveness of blue light screen guards in mobile phones

Overview: This project investigates the effectiveness of blue light screen guards/filters in mobile phones. Both downloadable apps and physical screen guards are investigated.

School: St Mary's College

County: Londonderry

Teacher: Ann Blanking

Student(s): Jennifer Doherty, Aimee Hegarty

3515

Title: Lasers: The Future

Overview: Demonstrating how lasers can be used to transfer power or data over long distances and a look at the problems associated with this technology.

School: St Michaels College

County: Dublin

Teacher: Roisin Weldon

Student(s): Max McCormack, Yiqun Xie, John-Finnian Hourican

3516

Title: A Yearlong Chemical Analysis of Pollutants in The Bracken River

Overview: Our project aims to investigate chemical pollution in river water over a year long investigation comparing areas of agriculture, industry and townland in different seasons.

School: Ardgillan Community College

County: Dublin

Teacher: Laura Sheahan

Student(s): Elena Manek, William Leonard

3517

Title: Wind Energy, I'm A Big Fan!

- An investigation into using novel apertures for utilising wind turbines
Overview: Creation of an integrated turbine/funnel system attached to the side of buildings which harnesses wind energy according to the Bernoulli principal and increased air flow.

School: Ursuline College

County: Sligo

Teacher: Anthony Carolan

Student(s): Lucy Morrison, Kyra Cawley, Roma Hynes

3518

Title: What are the optimum conditions for drying turf?

Overview: We are investigating the optimum conditions for drying turf. Was the hot summer too hot for turf saving, would the turf have been too dry.

School: C.B.S. Roscommon

County: Roscommon

Teacher: Breege Grennan

Student(s): Mark Cox, Eoin Bracken, David Burke

3519

Title: Ag fiosrú an tionchar atá ag gá leictreoin ar pláta miotal agus PVC

Overview: Tá muid ag fiosrú an éifeacht a bhfuil ag gá leictreoin ar pláta miotal agus PVC le luasaire leictreoin a rinneamar.

School: Coláiste Eoin

County: Dublin

Teacher: Seán Ó Murchú

Student(s): Max Ó'Donnchú, Conor McCarthy, Marcus McGabhann

3520

Title: Tree Trigonometry

Overview: We wish to test models proposed to explain the transpiration stream in a leaf and apply mathematical conclusions to real-life macrofluidic systems.

School: Loreto College Coleraine

County: Londonderry

Teacher: Katrina Brolly

Student(s): Teresa Sobocinska, Anna Toner, Meabh Bryson

3521

Title: Ábhair Éiritheach - Cén ceann is éifeachtaí

Overview: An investigation into which method of leavening, physical, biological or chemical gives the greatest rise during baking.

School: Pobalscoil Ghaioth Dobhair

County: Donegal

Teacher: Susan Ní Loinsigh

Student(s): Aoibhín Ní Dheagha, Emma Ní Ghallachóir

3522

Title: Euler's Solution of the Tenth Problem of Apollonius

Overview: We use Euler's very distinctive, trigonometric solution of the Tenth Problem of Apollonius as the basis for a new method involving coordinate geometry.

School: Synge Street CBS

County: Dublin

Teacher: Kate Walsh

Student(s): Yaduvir Harhangi, Marton Goz

3523

Title: A geology study of our local quarry including a graphic log.

Overview: We wish to conduct a geology study of our local quarry to highlight the complexities and subtleties missed or generalized over during regional studies.

School: Millstreet Community School

County: Cork

Teacher: Shane Guerin

Student(s): Diarmuid Cronin, James Buckley, Joyce Tambwe

3524

Title: Developing an organic solar cell coating solution to mitigate fossil fuels usage by motor vehicles

Overview: Developing a solar active coating (using organic solar active materials) to supply energy to vehicle batteries to reduce reliance on fossil fuel use.

School: St Aloysius College

County: Cork

Teacher: Angelina Carew

Student(s): Aoife Morris, Tianha Williams

3525

Title: 'Do you see what I'm saying?'

- A practical code transfer system utilising surface micro-vibrations initiated by incident sound waves
Overview: An investigation into monitoring the presence of surface micro-vibrations due to the incidence of sound waves, incorporating a practical code transfer system.

School: Ursuline College

County: Sligo

Teacher: Anthony Carolan

Student(s): Ellen Woodward, Maeve Brogan, Emma Casey

3526

Title: The mass production of sodium alginate and calcium lactate capsules as a new method of drug delivery

Overview: Our project explores how today's method of drug delivery could be improved by using sodium alginate and calcium lactate capsules that are mass produced.

School: Terenure College

County: Dublin

Teacher: Aine Hallahan

Student(s): Michael La Grue, Jack Mulhern

3527

Title: The Theorem of Polynomials

Overview: We find an easier way to calculate any polynomial, with any number of terms and any exponent. This easier method is the Theorem of Polynomials.

School: Comeragh College

County: Tipperary

Teacher: Carrie Hogan

Student(s): Timothy Innocent, Shannon Blackmore, Lughaidh McLoughlin

3528

Title: Acid Rain, Leaf Us Alone!

Overview: Extracting plant cuticle from different samples to create a paste to counteract the effects of acid rain, using a natural barrier as a problem solver.

School: St Louis High School

County: Dublin

Teacher: Catherine Clayton

Student(s): Sofia Kushchak, Eilis Counihan

3529

Title: Replacement of Standardised Primary Polyethylene Microbeads with Biodegradable Alternatives

Overview: We aim to test and utilize a biodegradable starch plastic that we have made in the lab as an alternative to polyethylene in microbeads.

School: Loreto Secondary School, Balbriggan

County: Dublin

Teacher: Niamh Mc Nally

Student(s): Cleo Gallen, Zainab Shahid

3530

Title: To investigate which hurley length is optimal for use in the modern game.

Overview: A group of camogie players, five from each year, second - sixth, will carry out a series of tests to determine the optimum hurley length.

School: St Angela's

County: Waterford

Teacher: Aoife Maher

Student(s): Deanna O'Brien, Rachael Walsh



3531

Title: The Attraction of MagLev Trains: A Study into the Thermo Magnetic Properties of Negatively Accelerating Objects

Overview: The purpose of this study is to ascertain what changes may occur in magnetic retardation and emf production when ambient environmental temperature varies.

School: Magh Ene College

County: Donegal

Teacher: James Gilmartin

Student(s): Niamh Carolan, Emma Birney

3532

Title: Air Quality Monitors; The Construction And Use Of Citizen Owned Particulate Matter Sensors.

Overview: Assembling and using air quality monitors which measure the amount of particulate matter in a specific area.

School: St Aloysius College Carrigtwohill

County: Cork

Teacher: Angelina Carew

Student(s): Lily George, Laura Daly

3533

Title: Can you effectively make biodegradable clothes?

Overview: To create a biodegradable cloth using bio fibres and analyse this cloth to see if it would be effective in the clothing industry.

School: Loreto Secondary School, Balbriggan

County: Dublin

Teacher: Niamh Mc Nally

Student(s): Willemijn Bosschaert, Eva Connolly, Ella Shanahan

3534

Title: Conas truailliú san uisce a laghdú tré plaisteach in-bhithmhille a dhéanamh as prátaí

Overview: Táimid ag déanamh turgnamh chun plaisteach in-bhithmhille as prátaí a dhéanamh chun an truailliú san uisce a laghdú.

School: Gaelcholáiste Mhuire

County: Cork

Teacher: Aoife Ní Mheachair

Student(s): Clara Pepper, Ela Demir

3535

Title: To test if hockey sticks with a low bow and high carbon content are really the most effective.

Overview: We are investigating hockey sticks and how the different materials and options of low or mid bow sticks affects their performance.

School: Santa Sabina Dominican College

County: Dublin

Teacher: Paul Nugent

Student(s): Arlene Haas, Melanie Bryce, Katie Loughney

3536

Title: How The Physics Of A Hockey Stick Affect Ones Performance

Overview: Our project aims to figure out how the length, weight and composition of a hockey stick influences the speed of a hockey ball.

School: Loreto Abbey Secondary School

County: Dublin

Teacher: Aideen Lambe

Student(s): Niamh O'Hara, Jess Maxwell

3537

Title: "The Will of the People?" (How electoral systems impact democracy)

Overview: It is an investigation into how various electoral systems work and their influence on national elections around the world.

School: St. Joseph's Secondary School

County: Clare

Teacher: Lorraine McCarthy

Student(s): Liam Boyce, James McNulty, Stephen Marsh

SENIOR GROUP

3600

Title: What-are in the Water

Overview: We are examining the differences in tap water from different locations.

School: Naas Community College

County: Kildare

Teacher: Michaela Piare

Student(s): Caitlin Robertson, Julia Spyra, Sara Alonso

3601

Title: Balloon Based Observation of Sporadic Meteors from the Stratosphere

Overview: To observe sporadic meteors from a specific platform in the stratosphere using a camera attached to a weather balloon.

School: Coláiste Phádraig

County: Dublin

Teacher: Jacqueline Farrell

Student(s): Alex Knowles, Israel Onyenemekam, Jason Wan

3602

Title: It's Lit - An Investigation into one's perception of the distance of a light based on its position and frequency.

Overview: Testing how the vertical height or positioning of a light or the light's frequency affects a persons distance perception of a lit object.

School: Ursuline College

County: Sligo

Teacher: Anthony Carolan

Student(s): Maura Madden, Nadia Mohammad, Elizabeth Bartlett

3603

Title: An Investigation into what factors maximise the percentage of energy transfer from potential to kinetic energy

Overview: We have investigated whether shape, temperature, mass and height of an object affect the percentage energy transfer when hitting another object using a pendulum apparatus.

School: Wesley College

County: Dublin

Teacher: Catherine Sweeney

Student(s): Nicki Bond, Ceri Arnott, Jamie Taylor

3604

Title: Ag Uasmhéadú Leictrealú Maximising Electrolysis

Overview: We investigated if varying electrolyte and electrode type can influence the rate of electrolysis of water and hence maximise the rate of Hydrogen gas production.

School: Pobalscoil Ghaioth Dobhair

County: Donegal

Teacher: Susan Ní Loinsigh

Student(s): Róisín Ní Choistelbha, Deirdre Nic Cumhaill

3605

Title: Fuel For Thought: What If We Banned Petrol And Diesel Cars From Our Roads?

Overview: We will demonstrate and explain the effect of petrol and diesel cars on the environment, and what would happen if we switch to electric cars.

School: Regent House School

County: Down

Teacher: Kevin Quinn

Student(s): Cameron Shaw, Josh Thompson

3606

Title: Mi-Wi-Fi: An investigation into the high frequency EM interference between Microwave Ovens and Wi-Fi

Overview: Our project is concerned with an investigation into how an operating microwave oven can negatively affect the upload/download performance of a Wi-Fi signal.

School: Magh Ene College

County: Donegal

Teacher: James Gilmartin

Student(s): Oisín Carolan, Aaron Bradshaw

3607

Title: What influences plasma's colour?

Overview: Our experiment is What influences plasma's colour? The gas used to make plasma or the amount of energy in it?

School: Heywood Community School

County: Laois

Teacher: Sharon Magner

Student(s): Luke Dowdall, Joey Moore

3608

Title: Is the length of a Hurl Statistically Significant in the Speed and Distance a Sliotar travels when struck

Overview: We are going to investigate if the length of a hurl is a factor in the speed and distance of a sliotar after being struck.

School: Portumna Community School

County: Galway

Teacher: Fiona Kenny

Student(s): Eoin Horan, Jamie Oisín Hogan Mcdonagh, Gavin Head



Technology

JUNIOR INDIVIDUAL

4101

Title: Skip-A-Slip

Overview: Skip-A-Slip is a simple, lightweight electronic device that can be attached to walking sticks to help detect presence of liquids and alerting the user through beeps.

School: Castleknock College

County: Dublin

Teacher: Tom Tierney

Student(s): Sachin Mahesh

4102

Title: BusETA: Coras GPS a chrúthú chun an thuras ar scoil agus ó scoil a feabhsú

Overview: To develop a bus tracking GPS system for school children so that they can accurately know when to begin walking to the bus stop.

School: Coláiste Ailigh

County: Donegal

Teacher: Micheál Ó Giobúin

Student(s): Caitlín Nic Giolla Chomhaill

4103

Title: Investigation into COPD concentrators

Overview: My intention is to design a small lightweight device which is an oxygen concentrator for chronic obstructive pulmonary disease (COPD) sufferers.

School: Kingswood Community College

County: Dublin

Teacher: Ciara Cook

Student(s): Amy Carruth

4104

Title: A study into the use of reflective materials to increase the efficiency of solar panels.

Overview: This project will look at the optimal angle of reflective materials and the different reflective materials to see if they increase a solar panels output.

School: Blackrock College

County: Dublin

Teacher: Emer O'Reilly

Student(s): Eric Brandt

4105

Title: NIF

Overview: NIF is an app that will use deep learning algorithms to turn student's school notes into flashcards to make them easier to learn.

School: Maynooth Education Campus

County: Kildare

Teacher: Tom Dixon

Student(s): Ethan Walker

4106

Title: Automated Water System Using Renewable energy.

Overview: My project aims to pump water automatically into a storage tank which can be beneficial for farmers.

School: Carrigaline Community School

County: Cork

Teacher: Steven Corbett

Student(s): Ishaan Anwar Arakkal

INTERMEDIATE INDIVIDUAL

4200

Title: Safety Harness Attachment to Prevent Suspension Trauma

Overview: Safety-harnesses prevent you from hitting the ground after a fall from heights, remaining in the harness can become life-threatening, this universal attachment will resolve this.

School: Desmond College

County: Limerick

Teacher: Donal Enright

Student(s): Ciara Brouder

4201

Title: Relax & Reward

Overview: A project to help calm down people with conditions such as Autism.

School: Clarin College Athenry

County: Galway

Teacher: Seamus Hynes

Student(s): Luke Madden

4202

Title: Building a medical device using piezoelectric polymer to monitor teeth grinding and clenching

Overview: Creating a medical device to monitor and record teeth-grinding and clenching built on the basis of piezoelectric polymer, to aid in the prevention of bruxism

School: Coláiste Choilm

County: Cork

Teacher: Paudie Scanlon

Student(s): Liah Cremin

4203

Title: LifeSaver - A New Automatic Lifejacket Inflation System

Overview: I am developing an automatic inflation mechanism for lifejackets suitable for use in the Irish Coast Guard and on small craft.

School: Mary Immaculate Secondary School Lisdoonvarna

County: Clare

Teacher: John Sims

Student(s): Dylan Egan

4204

Title: Applying nanoparticles with thermal compound to a CPU to increase thermal conductivity.

Overview: My project combines nanoparticles and thermal compound to achieve a higher thermal conductivity between CPU and heat sink and to increase CPU clock speeds.

School: Pobalscoil Iosolde

County: Dublin

Teacher: Lynda Jordan

Student(s): David Harris

4205

Title: Seal Whiskers - Bioinspiration for Oceantech

Overview: Living by the sea, I have

been inspired by my local seal colony to understand and attempt to mimic their underwater sensory capabilities with technology.

School: St Joseph's Secondary School

County: Dublin

Teacher: Daryl Dunne

Student(s): Daniel O'Brien

4206

Title: Visual communication solution to promote patient participation and wellness during Magnetic Resonance Imaging.

Overview: Design and develop a communication solution to reduce patient anxiety and enhance patient participation by giving patients the tools to complete an MRI exam successfully.

School: Christ King Girls Secondary School

County: Cork

Teacher: Denise Quilter

Student(s): Nicole Marinos

4207

Title: "BeatTheDrought" - A smart, staged, domestic greywater eco-treatment system.

Overview: A smart, staged, domestic greywater eco-treatment system, providing irrigation for non-edible plants, thus reducing dependence on public water supply especially in times of drought.

School: Colaiste Choilm

County: Offaly

Teacher: Ann Molloy

Student(s): Ronan Walsh

4208

Title: The Development of an Active Road Stud that can Visually Alert Road Users to Traffic Levels

Overview: The aim is to develop an active road stud which will visually alert road users to traffic levels and accidents ahead of them.

School: Colaiste Mhuire

County: Westmeath

Teacher: Diane Acton

Student(s): Rory O'Sullivan Sexton

4209

Title: HawkBotDirect

Overview: This project is to make the transition to a new school, a new job, a new environment easier and smoother.

School: Mercy Secondary School

County: Kerry

Teacher: Eimear Nolan

Student(s): Samuel Abubakar

4210

Title: Madralert - A Slurry Gas Alarm for Dogs

Overview: The slurry gas alarm emits a high pitched sound to scare dogs away from danger when slurry gas is present.

School: F.C.J. Secondary School

County: Wexford

Teacher: Michael Ruane

Student(s): Pierce Ryan

4211

Title: Is the Duracell Bunny pulling the fur over our eyes: An analysis of Battery efficiency

Overview: We are studying the effectiveness of different brands of batteries and correlating their effectiveness with their cost price and durability to establish efficiency.

School: St. Mary's College

County: Galway

Teacher: Anthony Carey

Student(s): Conor Croke

4212

Title: Fast Heal is the Best Deal

Overview: Design and test a device that promotes healing for wounds by aerating and protecting the wound to a higher degree compared to current treatment methods.

School: Coláiste Iognáid S.J.

County: Galway

Teacher: Paul Kilrairie

Student(s): Michael Hayes

4213

Title: Methodology for Direct Conversion of Electrical Energy into Controlled Linear Motion

Overview: In my project I will aim to create a solution for creating linear motion from electricity for use in Robotics and prosthesis.

School: St Flannan's College

County: Clare

Teacher: Michael Horgan

Student(s): Jack Browne

4214

Title: TagBuddy A Safe & Secure NFC authenticated messaging service for teenagers

Overview: I aim to make a safer NFC authenticated messaging app for kids that only allows users to add each other over NFC.

School: Ardscoil Ris

County: Limerick

Teacher: Diane Condon

Student(s): Niall Meade

4215

Title: The Blue Locker

Overview: Farm safety medicine or chemical storage locker. Designed by recycling blue chemical barrels.

School: Loreto Secondary School Fermoy

County: Cork

Teacher: Ger Murphy

Student(s): Ellen Kingston

4216

Title: How random can it get?

Overview: To test which programming languages are best in terms of Random Number Generation. We will test 6 programming languages for this purpose.

School: St Louis Grammar School

County: Antrim

Teacher: Patrick Trainor



Student(s): Matthew Wray

4217

Title: Making Social Media a Better

Place Using Artificial Intelligence

Overview: Using Neural Networks to automatically detect harassing tweets on Twitter.

School: St Eunan's College

County: Donegal

Teacher: Jane Gill

Student(s): Leo Camacho

4218

Title: An investigation into the robustness and efficacy of a selection of internet safety programs as well as a statistical analysis of parent's attitude and use of these programs

Overview: I am going to test the security of online child protection apps and programs.

School: Coláiste Choilm

County: Cork

Teacher: Karina Lyne

Student(s): Cian Larkin

4219

Title: Using Artificial Intelligence to advance content creation

Overview: Pundit uses AI to help create content on a certain topic and then distribute it to those who want that content.

School: Coláiste Iósaef

County: Limerick

Teacher: Brian Clarke

Student(s): Alex Goodison

4100

Title: A Rental Property Investment Tool to Aid Ireland's Ticking Pension Time Bomb

Overview: I have developed a computer program that streamlines the process of buying an investment property as part of an individual's private pension.

School: Belvedere College

County: Dublin

Teacher: Stuart Wheeler

Student(s): Brian Kelleher

SENIOR INDIVIDUAL

4300

Title: Building and Testing a Solar Powered Device to Aid Education in Refugee Camps and the Developing World.

Overview: I have built a fully functional solar-powered device to aid education in refugee camps and the developing world. It has had a very good response.

School: St. Angela's College

County: Cork

Teacher: Claire O'Donovan

Student(s): Anna O'Connor

4301

Title: Emission Free Omnidirectional Magnetic Driving System

Overview: An emission free, energy efficient and cost effective

omnidirectional spherical wheel driving system that functions using the attraction and repulsion of permanent magnets.

School: Calasanctius College

County: Galway

Teacher: Christina Kenny

Student(s): Alice Shaughnessy

4302

Title: How to Learn Quickly: An investigation of how to optimally train deep neural networks and its implications for human learning

Overview: Does a deep neural network learn faster to play adversarial games when playing against an opponent of worse, identical, better, or grand master ability?

School: Gonzaga College

County: Dublin

Teacher: Stephen McGroggan

Student(s): Luke Rickard

4303

Title: The Becquerel Roof: The Solar Roof of the Future

Overview: I have designed a roof that can be used as a secondary heating source that can reduce your heating bills by 20%-50%.

School: St Aloysius College

County: Carrigtwohill

County: Cork

Teacher: Angelina Carew

Student(s): Ava Kate Beausang

4304

Title: Applications of Citizen Drawn Constituencies to the Irish Democratic System

Overview: Devising a program using mapping software to allow citizens to draft constituency boundaries that can be used as references by the CSO during electoral division processes.

School: Coláiste An Spioraid Naoimh

County: Cork

Teacher: Tim Kerins

Student(s): Ciarán Meers

4306

Title: IOT Rain Gauge system

Overview: My project is a small self powered IOT embedded rain gauge device.

School: Muckross Park College

County: Dublin

Teacher: Lisa Shine

Student(s): Julia Aslambekova

4307

Title: Testing the efficiency of programming languages using neural networks.

Overview: This will test the efficiency of the most popular programming languages using neural networks. I will monitor RAM, CPU, and power-usage while running the network.

School: St Flannan's College

County: Clare

Teacher: Teresa Considine

Student(s): Gavin Guthrie

4308

Title: Freshgraze: An automated cloud controlled moving fence for livestock

Overview: An automated moving fence system precisely controlled by a cloud based user interface and grassland management system for livestock.

School: Colaiste Mhuire

County: Westmeath

Teacher: Eva Acton

Student(s): Charlie Drumm

1310

Title: Corás rabhadh a chrúthú chun sciorradh talún a h-aimsíú

Overview: Modh saor chun sciorradh-talún a aimsíu ag usaid teicneolaíocht claonmhéadair agus gíreascóp agus é a chur isteach i WiFi an teach chun rabhadh a thabhairt.

School: Coláiste Ailigh

County: Donegal

Teacher: Micheál Ó Giobúin

Student(s): Colm Gallagher

JUNIOR GROUP

4400

Title: The Silent Fidget

Overview: Our aim is to design and create a noise free tactile pencil case for use in mainstream secondary schools which is intended to improve focus.

School: Salesian Secondary College, Pallaskenry

County: Limerick

Teacher: Claire Sheehy

Student(s): Ethan Browne, Sean Hartigan

4401

Title: Can I Recycle It?

Overview: "Can I Recycle It" is a smartphone app that uses product bar codes to advise users of how to correctly recycle household waste.

School: Coláiste An Spioraid Naoimh

County: Cork

Teacher: Tim Kerins

Student(s): John Garvey, Maahit Malhotra

4402

Title: Two Keys

Overview: Two Factor NFC authentication for "keyless" systems in modern cars.

School: St Joseph's College

County: Tipperary

Teacher: Mary Gorey

Student(s): Eoin Kelly, Keith Kennedy, Shane Hogan

4404

Title: Smart Sliotar-A ball tracking system

Overview: Our project aims to evaluate current ball tracking systems in competitive sports and develop a sliothar-tracking system to assist match officials in decision making.

School: Scoil na mBráithre Chríostaí

County: Cork

Teacher: Maria Kelly

Student(s): Robert Troy, Rory Troy

4405

Title: PhysBot - Bot For Good

Overview: The aim of our project is to create a bot that can answer questions about physics.

School: Castleknock College

County: Dublin

Teacher: Tom Tierney

Student(s): Dominic Corley, Cian Gannon

4406

Title: Just a tag away from fueling up!!

Overview: Automating petrol attendant alerts to assist drivers who need assistance at the pumps. We will use UHF Passive readers and UHF Passive Radio Frequency Identification tags.

School: Christian Brothers Secondary School

County: Cork

Teacher: Tara Carey

Student(s): Eoghan O Dwyer, James Luddy

4407

Title: Quad Safety: Introducing the Quad Emergency Alert Device (QEAD)

Overview: We aim to design and develop a device which will help reduce the number of deaths and injuries caused by all terrain vehicles (ATV) accidents annually.

School: St. Brogan's College

County: Cork

Teacher: Laura O'Regan

Student(s): Adam Straub, Timmy Galvin

4408

Title: Interactive First Aid Kit

Overview: The aim of our project is to create an interactive first aid kit. This kit can be used to help bystanders administer first aid.

School: Colaiste Mhuire

County: Westmeath

Teacher: Eva Acton

Student(s): Robert Brennan, Sean Brennan, Declan Delaney

4409

Title: Agri-Wired

Overview: To use magnets and sensors on a tractor-mower to prevent accidents when removing wire by hand. A signal transmits to the motor to disable it.

School: St Joseph's College

County: Tipperary

Teacher: Mary Gorey

Student(s): Sean Young, Eoin Lavery, John Ryan

4410

Title: Code-Ed

Overview: Code-Ed is a fun interactive game to teach coding to primary school classes.

School: St Patrick's Classical School

County: Meath



Technology

Teacher: Bronagh Farrell
Student(s): Jake Casserly, Matthew Clinton, Cian Perdissat

4411

Title: W.F.F: The water, fire and farm safety mobile and desktop application.

Overview: The aim of our project is to teach children the fundamentals about farm, water and fire safety in the form of a game.

School: Colaiste Mhuire

County: Westmeath

Teacher: Eva Acton

Student(s): Oisín Smullen, Hugh Murtagh

4412

Title: Sensory alarm system to indicate that a farmworker has been overcome by slurry gas.

Overview: Wearable form of a sensory alarm system that activates on impact. Activation of the alarm, indicates that the user has been overcome by slurry gas.

School: St Ciarán's High School

County: Tyrone

Teacher: Shane Donnelly

Student(s): Peter Trainor, Ben Trainor, Oran Shields

4413

Title: Drink Right, Think Right - An App to Prevent Drink Driving

Overview: We have built an app that lets people know when it is safe to drive after consuming alcohol, especially the morning after.

School: St Catherine's College

County: Armagh

Teacher: Caroline Pereira-Lynch

Student(s): Aoife Bourne, Maya Corbett, Abby Muldoon

4414

Title: Double Under Counter

Overview: We have a sensor that counts the amount of double unders someone can do using a skipping rope in a row without stopping.

School: St Joseph's College

County: Tipperary

Teacher: Mary Gorey

Student(s): Donnacha McPherson, Colin Walsh, John Paul Curran

4415

Title: C.A.T. Colour Assistant Technology

Overview: CAT: Colour Assistant technology is a colour detection device that identifies any specific colour using a colour sensor.

School: North Monastery Secondary School

County: Cork

Teacher: Kieran Ruby

Student(s): Cian Boland, Jamie Hourigan

4416

Title: Lamb Watch

Overview: We were learning to code in school and we decided to see if we could come up with a way of saving lambs from hypothermia.

School: Our Lady's Bower

County: Westmeath

Teacher: Ellen Maguire

Student(s): Eimear Galvin, Millie O'Brien, Hannah Lennon

4417

Title: The Design and Development of a Protective Field Hockey Helmet

Overview: We are designing and developing a hockey helmet which will protect the face and head, is safe, comfortable, acceptable and will not impair players vision.

School: Kinsale Community School

County: Cork

Teacher: Shaun Holly

Student(s): Mary Clare Murphy, Eve Corkery

4418

Title: How safe do you really think your phone is?

Overview: We plan on testing Electromagnetic fields that are emitted from different brands of phones.

School: Coláiste Bhaile Chláir

County: Galway

Teacher: Niamh Burke

Student(s): Aoibhe O'Flynn, Chloe Flaherty, Bronagh Kelly

INTERMEDIATE GROUP

4500

Title: The Pollen Project

Overview: The development of an app to give information about the causes, types and effects associated with hay fever along with a pollen analysis and charts.

School: Ursuline College

County: Sligo

Teacher: Anthony Carolan

Student(s): Aoife Devlin, Marianne Kelly, Aoife Maher

4501

Title: Eye in the Cab

Overview: Device that monitors safety conditions in a tractor, whilst providing real-time reporting to third parties, using a built-in device equipped with GPS and auto dialler.

School: Desmond College

County: Limerick

Teacher: Donal Enright

Student(s): Kayla McMahon, Fiona Kelly

4502

Title: Knock, Knock - Who Is there? An Artificial Neural Network Autoencoder Design and Implementation to Detect When an Internet Connected Toy Has Been Hacked

Overview: Using an artificial neural network autoencoder approach, we propose to create an anomaly detection algorithm which identifies security threats to connected toys, increasing child security online.

School: Athlone Community College

County: Westmeath

Teacher: Martina Roache

Student(s): Amy Fallon, Andrea Whyte

4503

Title: How Now Brown Cow?:

A collar with sensors to monitor cow movement, temperature, identification and more.

Overview: We want to create a smart solution for farmers to monitor different information from animals i.e. their location, temperature, movement and more.

School: Ardscoil Ris

County: Limerick

Teacher: Diane Condon

Student(s): Aidan Quigney, Jack O'Connor

4504

Title: The Water Safety Wrist Watch.

Overview: Our project involves a water safety device worn conveniently and discreetly around the wrist which can be used to prevent drowning or in water-related emergencies.

School: Scoil Mhuire agus Íde

County: Limerick

Teacher: Rebecca Phillips

Student(s): Conor Woulfe, Padraig Walsh, Michael Nash

4505

Title: Safety Sensor and Camera for Bicycles

Overview: We will build a system mountable to bicycles that will detect vehicles and objects approaching from behind and alert the cyclist by vibrating the handlebars.

School: Mercy Secondary School

County: Kerry

Teacher: Eimear Nolan

Student(s): Nicola Moriarty, Patrick Nolan, Sean Fitzgibbon

4506

Title: SafeSlat: A device to pre-empt damage in slats on farms across the country

Overview: Our aim is to reduce the rate of farm injuries/deaths by creating a device and app that can record corrosion in slats using your smartphone.

School: Coláiste Choilm

County: Cork

Teacher: Paudie Scanlon

Student(s): Sarah Leahy, Ava Geary, Mollie-Jay Deasy

4507

Title: Gléas ar aimsíonn bacanna do daoine dall

Overview: An aidmh don tionscadal

ná chun gléas a aimseoidh bacann laistigh de méadar den braitheoir a cruthú, a cabhróidh le daoine dall taisteal go sábháilte.

School: Coláiste Iosagáin

County: Dublin

Teacher: Siobhan Uí Sheasnáin

Student(s): Hannah Nolan, Orlaith Mulloy

4508

Title: The Music Memory Maestro - An Alexa Skill that matches text to be memorised to music.

Overview: Our aim is to improve learning skills for secondary school students, by applying a new musical memorization technique using an Alexa type skill.

School: Athlone Community College

County: Westmeath

Teacher: Martina Roache

Student(s): Ruairi Lyons, Shane Whyte, Pranay Goel

4509

Title: Smart Trough

Overview: This is a meal trough that has a lid. It saves the end-users money by not allowing the meal inside the trough to get wet.

School: St Ciarán's High School

County: Tyrone

Teacher: Pauline Murphy

Student(s): Ronan Cassley, Grainne McConnell, Caoimhe May Lawler

4510

Title: Ag Comhcheangail Foinsí fuinneamh inathnuaite le Fuinneamh a Fháil ar Éileamh.

Overview: Combining hydro and wind power to create a renewable source of energy that can provide a large amount of power on demand.

School: Pobalscoil Ghaoth Dobhair

County: Donegal

Teacher: Siobhan Ni Shearcaigh

Student(s): Frank Ó Searcaigh, Seán Mac Fhionnghaile, Joe Ó Searcaigh

4511

Title: Automation of Location for Ambulance Request

Overview: When people ring 112, they are most likely distressed or mightn't know where they are. The app takes over and sends location; no time wasted.

School: Salesian Secondary College, Pallaskenry

County: Limerick

Teacher: Claire Sheehy

Student(s): Tara Fitzgerald, Laura Madden, Aisling McGuinness

4512

Title: Solar Powered Homeless Sleeping Mat

Overview: Our project aims to design and create a sleeping mat for people who are homeless that can be solar



charged during the day.

School: Creagh College

County: Wexford

Teacher: Enda Gallagher

Student(s): Amy Costello,
Amelie Flavin

4514

Title: No Smoke Without Fire – Can recycled catalytic convertors be retrofitted into wood stoves to efficiently clean smoke emissions?
Overview: To examine if a component of a car exhaust can be used to reduce the amount of dangerous gases emitted from a wood stove.

School: Ursuline College

County: Sligo

Teacher: Anthony Carolan

Student(s): Emma Mc Goldrick,
Orla Reilly, Sarah Flynn

4515

Title: LiteCane

Overview: Using advances in technology we will design an innovative alternative to the white cane used by the visually impaired to make it more user friendly.

School: Middleton College

County: Cork

Teacher: Emma Griffin

Student(s): Ben Richardson,
Thomas Cosgrave, Tim O'Riordan

4516

Title: Track that Crash

Overview: Develop a system that can detect if your car has crashed and text the GPS coordinates of the location of the crash to emergency services.

School: Our Lady's Bower

County: Westmeath

Teacher: Ellen Maguire

Student(s): Aoife McDermott,
Ashling McCarthy

4517

Title: Flat Out

Overview: A portable refrigerated Faraday cage that prolongs the life and safe use of domestic batteries.

School: Ursuline College

County: Sligo

Teacher: Anthony Carolan

Student(s): Hollie Hannon,
Alison Roche, Lauren French

4518

Title: Ro-Bee: simulating the behaviour of bees using autonomous agents

Overview: The worlds population of Bees is slowly dying out and once they're gone who will carry out the task of pollination?

School: North Monastery Secondary School

County: Cork

Teacher: Frank Murphy

Student(s): Brian Prout,
Paul Sunday, Jordan Woodgate

4519

Title: QUAD for Quads

Overview: The QuadUniversalAlarm Device alarms when the quad is in danger of overturning, sends texts if it crashes and helmets need to be worn for the quad to start.

School: St Killian's College

County: Antrim

Teacher: Sean Connolly

Student(s): Liam Black,
Cahal Mc Donnell

4520

Title: Designing a hydroponic system for sustainable plant growth on the moon.

Overview: We are designing a sustainable hydroponic system that will enable humans to live on the moon for prolonged periods of time.

School: Coláiste Chiaráin

County: Limerick

Teacher: Edel Farrell

Student(s): Oisín Brady Halmshlag,
Kevin Lawlor

4521

Title: CommunicAID: An Application to Enhance Patient/Specialist Relations and Simplify Patient's Day-to-Day Tasks.

Overview: CommunicAID is an application for patients and specialists/GP's with the hope of alleviating waiting lists and simplifying patient's day-to-day tasks.

School: Colaiste Mhuire

County: Westmeath

Teacher: Eva Acton

Student(s): Ruairi Fagan,
Paul McCool, Gerald McVeigh

4522

Title: The Multifunctional Automaton
Overview: We have developed a robot that can do multiple tasks and could help people with different interests. Our robot could become crucial in the future.

School: Castleknock College

County: Dublin

Teacher: Tom Tierney

Student(s): Akhil Pramod,
Armand Bratulescu

4523

Title: Want a Safe Car? WHEEL Get Right on That!

Overview: Our aim is to create a safer vehicle initiative, using a device, when submerged in water, a waterproof-electrical system will open windows to save lives.

School: St Marys College

County: Wicklow

Teacher: Joanne English

Student(s): Aimee Bodell,
Marguerite O' Donovan, Leah Weldon

4524

Title: A Way to Reduce Fatalities and Injuries due to Ladder Related Incidents

Overview: Our project aims to reduce

the number of fatalities and injuries due to ladder related incidents on farms and in workplaces by developing a safety device.

School: Ardscoil Uí Urmoltaigh

County: Cork

Teacher: John O'Sullivan

Student(s): Adrian Crowley,
Seamus O'Sullivan, Ralph O'Mahony

4525

Title: Analysing the Use and Efficiency of Cow Sensors on Dairy Farms

Overview: The aim of our project is to evaluate if having basic sensors on cows reduces labour and improves overall farm efficiency on a dairy farm.

School: Ballymahon Vocational School

County: Longford

Teacher: Sinead Mulcahy

Student(s): Emily Cassells,
Patrice Rhatigan, Juliette Byrne

4526

Title: An Automated RFID Dispensing Unit

Overview: The Automated Dispensing Unit is a programmed food dispenser that will reduce the amount of food waste and packaging used in supermarkets.

School: Ursuline Secondary School

County: Tipperary

Teacher: Michael English

Student(s): Jean Grace,
Sarah Fitzgerald, Ellen Duggan

4527

Title: HFC-134A Capable Cooling loop

Overview: Creating a cooling loop capable of using HFC-134A as a coolant.

School: Coláiste Eamann Rís

County: Kilkenny

Teacher: Catherine Stapleton

Student(s): Ben Molloy,
Patrick Byrne, Mateusz Lizak

4528

Title: Developing a motion-generated light indicator for cyclist using micro-bit controllers.

Overview: Our aim is to produce a motion-generated light indicator for cyclists using micro-bit controllers in an attempt to reduce the number of cyclist related road injuries.

School: St Joseph's Secondary School

County: Dublin

Teacher: Daryl Dunne

Student(s): Luke Fichtner,
Jordan Fitzgerald Skelton,
Nicky Gallagher

4529

Title: A Smart Milking Solution

Overview: Using colour sensors and solenoid valves to prevent the contamination of milk with either blood or mastitis when the cows are being milked.

School: North Monastery Secondary School

County: Cork

Teacher: Kieran Ruby

Student(s): Jack James,
Porosh Hossain, Kelvin Osagie

4530

Title: Hurling HEARoes

Overview: So many people get injured every year from playing hurling, helmets are supposed to protect your head but it misses one vital part the ear.

School: Pobalscoil na Tríonóide

County: Cork

Teacher: Edel Charles

Student(s): Emma Hickey,
Rebecca Geary

4531

Title: Early Warning, Farm Safety System

Overview: A farm safety pedestrian detection system for all tractors, warning drivers of people out of their sight, and/or dangerously close to the tractor.

School: Ardscoil Uí Urmoltaigh

County: Cork

Teacher: John O'Sullivan

Student(s): Adam Giles, Keith Nyhan

4532

Title: Electric Fence Low Voltage Alert System

Overview: To develop a sensor that can alert the farmer by text message if the fence voltage drops below the threshold level.

School: Moate Community School

County: Westmeath

Teacher: Irene O'Sullivan

Student(s): Stephen Kelly,
Christopher Kerrigan

4533

Title: Technology that can prevent or reduce sexual offences

Overview: Creating a device that may prevent sexual offences using pressure sensor technology.

School: Coláiste Pobail Acla

County: Mayo

Teacher: Marie Moran

Student(s): Erin Corrigan,
Shaun O'Donnell

4534

Title: Fire locating device

Overview: We aim to create a system that not only lets people know there's a fire but where in the building it is.

School: St Joseph's Secondary School

County: Westmeath

Teacher: Darragh Glynn

Student(s): Fintan Larkin,
Cormac O'Farrell

4535

Title: Multipath Routing

Overview: In our project we will be investigating the effects that multipath routing has on network congestion in wireless networks.

School: Coláiste Phádraig

County: Dublin

Teacher: Kevin Carey



Technology

Student(s): Michael Connolly, Adam Devitt, Samuel Keogh

4536

Title: Using tobii eye tracker 4c to assist people with Parkinson's disease to use computers

Overview: This project is designed to use a tobii eye tracker to allow for people with Parkinson's disease to use a desktop computer with better accuracy.

School: St Marys College - C.S.Sp.

County: Dublin

Teacher: John Nisbet

Student(s): Samuel Byers, Ben Sheeran, Tim Cleary

4537

Title: Alzheimer's Tracker

Overview: A GPS tracker for people with Alzheimer's with a connecting app to monitor the location of patients with Alzheimer's.

School: Salesian Secondary College, Pallaskenry

County: Limerick

Teacher: Lisa Downey

Student(s): Amy Cusack, Zoé Blondelle

4539

Title: Can We Make Grass Green?

Overview: We would like to see if we can harness energy from grass clippings to produce electricity.

School: St. Joseph's Secondary School

County: Clare

Teacher: Marguerite McGuinness

Student(s): Ronan Mcgrath, Stephen Moloney, Luke Meade

4540

Title: Improve your learning

Overview: I wish to improve student learning based on their strengths and weaknesses in their ability to learn, by employing the use of a specialised app.

School: Santa Sabina Dominican College

County: Dublin

Teacher: Paul Nugent

Student(s): Robin Keating, Hannah Armstrong

4541

Title: Airgeadra-cripteach | An domhan eacnamaíoch bun os cionn!
Overview: Tá Bitcoin agus Xrp chun an domhan eacnamaíochta a athrú toisc go bhfuil siad sábháilte, saoir agus tapaidh.

School: Meanscoil Gharman

County: Wexford

Teacher: Elaine Nic Réamoinn

Student(s): Seán Elphinstone, Jake De Nogla, Adam Copeland

4542

Title: To investigate and improve the monitoring of SIDS in infants

Overview: To develop a monitor, which records the infant's vital life patterns, alerts parents in the event of

an issue and can comfort the infant.

School: Middleton College

County: Cork

Teacher: Emma Griffin

Student(s): Robbie O'Mahony, Donagh McCarthy

4543

Title: Developing a new Obstructive Sleep Apnoea prevention device

Overview: Development of a new device that is less invasive and difficult to become accustomed to using which helps prevent the symptoms of Obstructive Sleep Apnoea.

School: C.B.S. Thurles

County: Tipperary

Teacher: Fergus O'Brien

Student(s): Oisín O'Brien, Sam Quinlan

4544

Title: Pedestrian Vehicle Early Detection System

Overview: We are investigating a low-cost, anti-collision system that is portable and can be worn or carried; possibly a wristband or handheld device.

School: Mount St Michael

County: Cork

Teacher: Alison O'Neill

Student(s): Stephen Gordon, Billy Murphy

4545

Title: Project Plant

Overview: Our project aims to educate people about the various environmental problems that we cause and how to lessen our impact on the environment.

School: Colaiste Nano Nagle

County: Limerick

Teacher: Kelly Walsh

Student(s): Elizabeth Pantskhava, Hafza Abdiwali

4546

Title: Tracka

Overview: This project is designed to help track a students academic progress. The app will highlight to students academic improvements and struggles in a discrete way.

School: Colaiste Nano Nagle

County: Limerick

Teacher: Kelly Walsh

Student(s): Isabel Hayes, Amanda Makulena, Sofija Hanzena

4403

Title: Item Tracking Cupboard

Overview: Our project gives those with visual impairments another freedom by tracking where their items are in the cupboard. So they don't depend on another person.

School: Saint Dominic's Secondary School

County: Dublin

Teacher: Sarah Green

Student(s): Nicole Hyland, India Nicole O'Reilly

SENIOR GROUP

4600

Title: Collision Avoidance Algorithm for Self-Driving Cars

Overview: Prototype of an autonomously driven truck which runs on a code programmed through python which avoids objects in a pedestrian site.

School: Coláiste Phádraig

County: Dublin

Teacher: Jacqueline Farrell

Student(s): Chiso Ajoku, Mohammed Babelli, Ben Hennnessy

4601

Title: CropSafe - Redefining the future of agriculture, today

Overview: A simple online platform utilizing satellite imagery to accurately detect and predict impending diseases within your crops, providing relief solutions directly to the landowner.

School: St Mary's Gs

County: Londonderry

Teacher: Eileen Daly

Student(s): John McElhone, Michael McLaughlin

4602

Title: Smart Home For The Hearing Impaired

Overview: Using an embedded computer system to assist the hearing impaired in their home, giving them more independence and peace of mind.

School: Kishoge Community College

County: Dublin

Teacher: Micheal Griffin

Student(s): Jordan Ahern, Liyana Muhammad Tariq Zafri

4603

Title: A Secure and Anonymous Internet Using Onion Routing

Overview: We are creating a secure and anonymous method of browsing the internet, using Onion Routing to protect users identity and personal information.

School: Coláiste Bhaile Chláir

County: Galway

Teacher: Niamh Burke

Student(s): Seán Kelly, Seán Janson

4604

Title: SAIO - Budget Smart Home Assistant

Overview: The SAIO Budget Smart Home Assistant is a budget-friendly alternative to the more expensive smart home options without loss of quality and features.

School: Clonakilty Community College

County: Cork

Teacher: Patrick O Keeffe

Student(s): Olivier Krawczyk, Sean Cahalane

4605

Title: Computer Vision for Detecting Errors in 3D Printing

Overview: This project aimed to create a computer vision system which can detect errors in real-time during 3D printing.

School: Coláiste Phádraig

County: Dublin

Teacher: Kevin Carey

Student(s): Noah Garza, Brendan McCann, Michael Obioha

4606

Title: A Wearable Device Which Assists Caretakers by Providing them with the Information on the Well-Being of Their Patients

Overview: A wearable device which measures the proximity of a person and detects falls, communicating this to an authorized caregiver via an Android application.

School: North Monastery Secondary School

County: Cork

Teacher: Frank Murphy

Student(s): Danila Fedotov, Filip Caric

4607

Title: Is Facebook listening? - An investigation into the use of personal devices as listening apparatuses for data harvesting for targeted advertising

Overview: Recently, there has arisen a widespread belief that companies, specifically Facebook, are listening to our conversations through mobile devices. We aim to test this theory.

School: Killorglin Community College

County: Kerry

Teacher: Marieke O'Connor

Student(s): Donal Brennan, Grace Lynch

4608

Title: First Responders Beacon

Overview: A device for first responders on the scene of an accident. The device works as a beacon alerting all vehicles within a chosen range.

School: St Joseph's College

County: Tipperary

Teacher: Mary Gorey

Student(s): Seamus Ryan, Liam Ryan

4609

Title: Human - Echolocation

Overview: To assist the visually impaired to navigate their environment using audio feedback of static and moving objects.

School: North Monastery Secondary School

County: Cork

Teacher: Frank Murphy

Student(s): Elvis Nzekwe, Ashley Okoro



4610

Title: The Posture Pad

Overview: An investigation into the use of electronic assistive technology as a cause-treating alternative to the symptomatic treatments on the market for back pain.

School: Mercy Secondary School

County: Kerry

Teacher: Daniel McCarthy

Student(s): Sean Hennessy, John McCrohan

4611

Title: An Investigation Into The Information Collected By Our Mobile Phones

Overview: Through the course of our investigation we intend to analyse and compile the personal information and data collected through online outlets.

School: Killorglin Community College

County: Kerry

Teacher: Donal O'Reilly

Student(s): Cian Lynch, Peter Kyselica

BTYSTE 2019 Events

Check the schedules on pages 64–66 for specific show times

2019

Young Scientist & Technology of the Year Limited

The BT Young Scientist and Technology Exhibition is the main activity of a charitable trust, Young Scientist & Technology of the Year Limited. The charitable trust which has been in existence since 2003 and was set-up in order to create a separate corporate entity to protect and act as custodian for the YS&TE. The Company aims to build on the successful track record of the Young Scientist and Technology Exhibition ("Exhibition") and maintain and develop the integrity and identity of the Exhibition. In September 2018 the Trust were the umbrella organisation for Ireland hosting the European Union Contest for Young Scientists and also the Primary Science Fair 2019, we thank BT for their invaluable support in organising both of these events on our behalf.

The trust has worked with some important entities outside and has granted licensing arrangements to stakeholders in Tanzania, Kenya and the United Arab Emirates to allow them to operate the Young Scientist model in these countries. The first Young Scientist Tanzania took place in 2012, in 2018 Kenya held their first Young Scientist and in a few short weeks the United Arab Emirates version of the exhibition takes place. Please visit the joint stand for all of these wonderful competitions in the Eco Zone.



**YOUNG SCIENTISTS
TANZANIA**



**YOUNG SCIENTISTS
KENYA**



SCIENTIFIC SUE

Sue McGrath aka 'Scientific Sue' is the Director of Science2Life, an outreach educational provider and consultant dedicated to the communication of STEAM (delivering science, technology, engineering and mathematics programmes using the arts to bring them to life) in a passionate and engaging fashion. Her aim is to "effect change, achieve results and make science fun!"

Ireland's Ingenious Engineers

Who was the first person to walk on the moon and which Irish Scientists helped him to achieve global fame?

This highly creative and exciting science and engineering show explores how some of the amazing scientific discoveries and engineering feats endeavoured by some of our hugely talented Irish Scientists over the last 350 years helped put man into space.

Who is 'Gorgeous George'? and how does Scientific Sue use the laws of physics to explode him? Whose experimentations helped to develop rocket fuel?

Creating a cloud in a bottle, exploding gases and powders, constructing ejector seats and sending rockets sky high are just a few of the demonstrations that will be used to fire the spirit of discovery within, whilst creating lots of excitement and opportunities to think like a scientist.

Scientific Sue will demonstrate:

- Properties of Carbon Dioxide, Hydrogen and Oxygen gases
- Boyle's Law
- Combustion of gases and powders
- Liquefaction of gases
- Invention of the safety lamp and ejector seat

In association with

IOP | Institute of Physics
In Ireland

www.science2life.com



YOUR BEAUTIFUL BIASED BRAIN

Psychologist James Soper presents this fast-paced, interactive show that will literally turn your world upside down.

We take our brains for granted but they are the most amazing machines in the universe. Brains do incredible things, but they also take short-cuts that mean sometimes what you see, hear and feel is very different to the actual world around you. Learn about the latest in brain imaging and research in a show that will blow your mind.

James Soper is the juggling scientist. Teacher, ex-circus performer and Guinness World Record Holding juggler James performs exciting and educational shows about science for schools and festivals. The juggling scientist has performed BTYSTE, The Ploughing Championship, The REAL Science of the Circus for the Abu Dhabi Science Festival, The Singapore Science Festival, the British Science Association and for BBC One Learning.



In association with

SFI Smart Futures

SPACE: THE NEXT FRONTIER 3D

Fifty years ago, mankind stepped on to our nearest celestial body, The Moon, heralding a new era of manned space exploration and adventure.

Today, we have a constant human presence in space on board the International Space Station, our stepping stone to interplanetary travel and conquest of the Solar System. Space Tourism is rapidly becoming a reality with bookings and spaces for individuals wishing to experience the thrill of space travel for themselves filling up quickly.

Ireland has also recently announced membership of the European Southern Observatory (ESO). ESO operates a suite of the world's most powerful ground-based astronomical telescopes enabling important scientific discoveries. Membership of ESO will provide access to state-of-the-art research facilities for Irish astronomers and astrophysicists, allowing them to conduct front-line science in the best conditions.

This 3D presentation will highlight the development of manned spaceflight from the Apollo missions to our current outpost in space and provide an insight into how we are utilising ground and space based telescopes and spacecraft to unlock the secrets of the cosmos.



100% EDUCATIONAL.
200% ENTERTAINING.
300% EXPLOSIVE.
400% FUN.



WARNING! WARNING! WARNING! WARNING! WARNING! WARNING! WARNING! WARNING!

Back by popular demand... The UK's Ministry of Science team will be returning to the BT Young Scientist Exhibition more explosive than ever!

Following a worldwide tour in 2018 the team arrive back in Dublin to show us all how Science and Engineering can change our world for the better.

Expect loud explosions, liquid nitrogen ping pong balls, CO₂ fired chairs, atoms, elements, exploding Oxygen and Hydrogen balloons, fire tornados and much, much more.

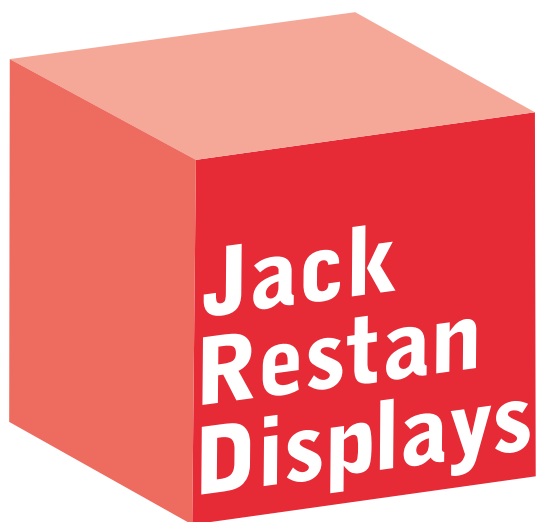
The show takes an **anarchic** approach to science communication whilst looking at the inventors and engineers who have shaped and inspired the modern world that we live in.

Join the super talented presenters and the voiceover from above (**X Factor's Peter Dickson**) as they take you on a journey using brilliantly designed demonstrations with a few loud bangs to lead the way.



www.ministryofscience.org





Proud **display partner**
of the BT Young Scientist
& Technology Exhibition

t: +353 1 450 6006

www.jrdisplays.ie



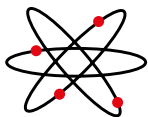
Get the app

Get all the latest information about the exhibition, events and updates direct to your mobile, absolutely free!

Features include Interactive Exhibition Map, Getting Here, Search Student Projects, Schedule of Events, Social Network, Awards, History, Past Winners, Photo Gallery and more...



THE WORLD OF SCIENCE & TECHNOLOGY



Quick Search

ABP Food Group	W01
Alcon	W20
Alexion	W17
Analog Devices	W29
BT	W11
CoderDojo / The Raspberry Pi Foundation	W26
Central Statistics Office	W14
CISCO	W27
CIT's Blackrock Castle Observatory (BCO)	W33
Coláiste na bhFiann	W10
Coláiste Na Rinne, Gaeltacht na nDéise, Co. Phort Láirge	W35
Coláiste Uisce	W34
CONCOS	W08
Cook Medical	W15
CWIT	W41
DCU Faculty of Science and Health	W39
Eli Lilly	W19
European Commission Representation in Ireland	W12
Henkel	W02
Institute of Physics in Ireland	W32A
Irish Patents Office	W06
Irish Science Teachers Association	W32

Janssen Pharmaceutical Sciences UC	W16
Junior Achievement Ireland (JAI)	W09
Maxim Integrated	W03
Maynooth University	W40
National College of Ireland	W30
National Teacher Awards	W18
National University of Ireland Galway	W38
Nokia Bell Labs	W13
Portwest	W22
Regeneron	W21
RTÉ	W28
Science and Technology in Action	W24
SightSavers	W25
Studyclix	W42
Teagasc	W07
The Irish Centre for High-End Computing (ICHEC)	W05
The Marie Keating Foundation	W31
Trinity College Dublin	W23
University College Cork	W37
University College Dublin	W04
University of Limerick	W36



Food Group

W01: ABP Food Group

ABP is one of Europe's leading privately owned agribusiness companies operating across 4 divisions: Beef, Pet Food (C&D Foods), Proteins and Renewables (Oileco). It has processing facilities in Ireland, UK, Spain, France, Holland, Denmark, Austria and Poland and employs over 10,000 colleagues. ABP has sponsored a farm safety prize at the BTYTE since 2014 and has also been involved in a number of other on-farm and educational farm safety initiatives. Further information is available at <https://www.abpsustainabilitystory.com>



W02: Henkel

Henkel is a global leader of brands and technologies organised into three Business Units Home Care, Beauty Care and Adhesive Technologies. Founded in 1876, Henkel holds leading market positions both in the consumer and industrial businesses, with brands such as Persil, Schwarzkopf and Loctite. Henkel employs 53,000 people globally with annual sales of more than 20 Billion in 2017. Henkel Ireland Operations & Research Ltd, located in Tallaght, Dublin is a centre of excellence for adhesive technologies. New Innovative products are developed in the Dublin R&D centre where there are currently 120 employees, the majority of whom are science & engineering graduates. The technology centre is a primary location for Global Acrylics Technology development, with fundamental & applied research. The technology centre collaborates with academic research institutes in many areas and as a materials science company it invests in adjacency technologies such as Additive Manufacturing.



W03: Maxim Integrated

At Maxim Integrated, we're solving engineering problems and empowering design innovation, enabling our customers to create products that shape our world. Our innovative, award-winning analog and mixed-signal technologies are found in cars, data centers, mobile and wearable devices, among many other areas. They make systems smaller, smarter, more secure

and energy efficient. Since our founding in 1983, we've built a rich history and culture of innovation that rewards bold thinking, teamwork, personal growth and community involvement. With offices and manufacturing sites worldwide, we are a \$2.48 billion semiconductor company headquartered in San Jose, California with over 7,000 employees.



UCD Social Sciences

W04: University College Dublin

UCD leads the way with the broadest and most diverse Social Sciences programmes in Ireland offering innovative social sciences education and research to address the critical social, political, cultural and economic concerns of our time. The range of internationally-recognised social sciences courses in University College Dublin is unrivalled.

Social sciences students explore the nature of our society and the challenges we face including climate change, crime and violence, social and economic inequality, gender justice, sustainable cities, human development, economic growth and big data. Outstanding and ground-breaking research by UCD's internationally renowned social sciences researchers have had profound impacts on the understanding of key issues in society as well as directly shaping public discussions and policy. Building on our educational offerings and in response to the needs of graduates to develop strong research skills, acquire real-world work experience and cultivate a global mindset, University College Dublin launched a new four-year BSc Social Sciences degree in September 2018.

Visit the UCD Social Sciences stand and meet current social sciences students in UCD who can talk about our new and continuing social sciences degrees, explore your knowledge of the social sciences in everyday life, and try out some high-tech equipment used at UCD in behavioural experiments.

www.ucd.ie/socialsciences



W05: The Irish Centre for High-End Computing (ICHEC)

The Irish Centre for High-End Computing (ICHEC) is a national technology centre that manages Ireland's largest supercomputer for scientific research, Fionn. Through high performance computing (HPC), we enable scientists and industry to carry out large-scale simulations and data analysis in a wide range of areas from nanotechnology, climate and weather, engineering,



BT YOUNG SCIENTIST & TECHNOLOGY Exhibition



Driven by innovation, delivered by BT

geology, astronomy to genetics. ICHEC also collaborates with many other HPC centres around Europe as a member of PRACE (Partnership for Advanced Computing in Europe), which offers some of the most powerful supercomputers in the world for research. This year the ICHEC stand will provide a variety of exhibits related to HPC and its applications. Our booth will also host the launch of a new campaign to choose a name for Ireland's next supercomputer to replace Fionn in 2018!



**OIFIG NA bPATINNÍ
IRISH PATENTS OFFICE**

W06: Irish Patents Office

The Patents Office is a statutory office and operates under the aegis of the Department of Business, Enterprise and Innovation. The role of the Patents Office is to provide an efficient and effective system of industrial property protection. This is to be achieved through the protection of industrial property rights in the fields of patents (for inventions, function), trade marks (name, logo, slogans) and designs (appearance, shape & configuration) and the dissemination of relevant information in conjunction with each of these activities. Come along and visit us at our stand to find out more about patents, trademarks, designs or copyright. Test your knowledge by taking part in our quiz and you could be the lucky winner of one of our daily prizes! We look forward to meeting you! For further information on intellectual property Office you can check out www.patentsoffice.ie or follow us on Facebook.



W07: Teagasc

Teagasc "the Agriculture and Food Development Authority" is the national body providing integrated research, advisory and education services to the agriculture and food industry and rural communities.

Teagasc undertakes innovative research in: Animal and Grassland Research and Innovation; Crops, Environment and Land Use; Food; and Rural Economy and Development. Teagasc is a large supporter of post-graduate research, with some 235 pursuing PhDs on its Walsh Fellowship Scheme at any one time. These are funded by Teagasc's own resources and various national & international research funders, mainly DAFM.

Teagasc colleges deliver a wide range of Level 5 and Level 6 courses in agriculture, horticulture, equine and forestry. The colleges also collaborate with a number of third level institutions in the delivery of Higher Level courses in agriculture and horticulture.

The Teagasc Advisory Service, through a nationwide regional office network, provides a local service to farmers.



W08: CONCOS

Coláistí Gaeilge

Is é CONCOS an scáth-eagraíocht do formhór Choláistí Samhraidh na tíre.

Tá na Coláistí Samhraidh lonnaithe i ngach Gaeltacht, chomh maith le roinnt Coláistí sa ghlaucht.

Tá fíor-thábhacht ag baint le Coláistí Samhraidh chun feabhas a chur ar labhairt, líofacht agus saibheas na Gaeilge do dhéagóirí a bheas ag iarraidh na marcanna is mó a bhaint amach san Ard Teistiméireacht. Tá 50% marcanna le fáil ar an Teanga Labhartha, sé sin, 40% don béaltríail agus 10% don cluas tuiscint.

Bigí linn i Samhraidh 2019 chun spraoi, spórt agus craic a bheith agaibh agus sibh ag cur feabhas ar bhur chuid Gaeilge!

Irish Language Colleges

Concos is the umbrella organisation for most of the country's Irish Language Colleges.

Irish Language Colleges are located in all Gaeltacht regions as well as some in non-Gaeltacht regions.

Irish language Colleges have a very important role to play in improving fluency and enriching the spoken Irish Language for teenagers who want to get the highest marks possible from the Leaving Certificate.

There is 50% of marks given on the spoken language, 40% for the Oral exam and 10% for the Aural exam.

Join us this Summer (2019) for fun, sport and craic while improving your Irish!



W09: Junior Achievement Ireland (JAI)

Junior Achievement Ireland (JAI) Junior Achievement Ireland (JAI) encourages young people to remain in education and helps them develop the skills they need to succeed in a changing world. Junior Achievement is part of a worldwide organisation reaching 10 million young people each year. Established in Ireland in 1996 JAI has built up a strong demand from schools throughout the country and created successful partnerships with over 150 leading organisations. During the 2016/17 school year 60,000 students are participating in entrepreneurship and STEM skills programmes taught by 3,000 volunteers from the world of work. Volunteers act as role models – the messenger is as important as the message. They are recruited, trained and supported by the JAI team, teaching their programme in the classroom once a week for five weeks. 16 structured programmes are taught to 6–18 year olds (primary and secondary students) with an age appropriate programme for every class in primary and a menu available for secondary schools.



W10: Coláiste na bhFiann

Coláiste na bhFiann is a non-profit organisation comprising of the following three elements:

1. Coláiste na bhFiann

Coláiste na bhFiann has over 50 years' experience running Irish language Summer Courses in both Gaeltacht areas and residential colleges. The main purpose of the organisation is to teach young people to speak Irish in a welcoming environment that encourages a positive attitude towards the language. Building on the basics of Irish learned within the traditional schools' structure, Coláiste na bhFiann has developed a formula that has successfully helped generations of young people to enjoy using and improving their Irish language skills.

2. Cumann na bhFiann

Cumann na bhFiann is the aftercare service run by Coláiste na bhFiann. Cumann na bhFiann organises weekly Irish language youth clubs giving young people the opportunity to use and improve their spoken Irish. By attending Cumann na bhFiann regularly, fluency in Irish is maintained and improved, thus normalising the use of Irish in everyday life. It is vital that young people are given the opportunity to recognise the advantages in speaking Irish. There are currently 60 clubs across the country which run on a weekly basis.

3. Ionad Óige na hÉireann (Droim Rí)

Ionad Óige na hÉireann is the only all Irish language youth centre in Ireland. The objective of the centre is to create an space for young people to integrate Irish into their lives in a natural way outside the school system. This is achieved through providing a wide range of activities to a high standard in the centre, thus promoting confidence in speaking the language through everyday activities of the young person's choice. Activities include Music, Art, Dance, Drama and Sport.



W11: BT

We use the power of communications to make a better world. We're passionate about technology. Come find us and hear all about the innovative history of BT, from when we started in 1896, right up to our merger with EE! We'll show you where the internet comes from; from the network to your home, and what the future holds. Our section shows the amazingly clever ways that internet can be used, where we will showcase Virtual Reality, using BT Sport, IoT, Healthcare and Security demos. Come see how Ulster University is working with the BT Ireland Innovation Centre in areas such as Pervasive Computing and to take part in our competitions, with a chance to win an Amazon Echo Dot.

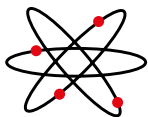


W12: European Commission Representation in Ireland

There's so much to see and do at the European Union stand this year!

Dr How's Science Wows Needs You – Fun, interactive science with Dr. How's Science Wows – check out a wide range of science experiments from making slime, erupting volcanoes, mini explosions, smoke rings and lots more. Hands-on, educational and imaginative science!

THE WORLD OF SCIENCE & TECHNOLOGY



What do you know about Europe? Can you find the rivers, mountains, and cities of Europe? "Discovering Europe" is an interactive game to test your knowledge about the EU. Find out about our competition to win a trip to the European Parliament – and learn about the European Parliament Elections on 24 May 2019. Questions and queries about Europe? Views and ideas on what the European Union should be doing and where it should be headed? Come and speak to us at our stand.

Free resources about the European Union will be available for visitors.

So why not join us at the European Union Stand for lots of fun, you won't regret it.

Contact us: The European Commission Representation in Ireland Tel: 01 6341 111

Website: www.euireland.ie <https://www.thistimeimvoting.eu>

Facebook: @EUIreland @EPinIreland Twitter: @euireland @epinireland

Instagram account – @euireland

NOKIA Bell Labs

W13: Nokia Bell Labs

Nokia Bell Labs, Nokia's research and innovation arm, creates the disruptive technologies that are shaping the way the world communicates and connects. With expertise in analytics, cloud, fixed, optics and wireless and by collaborating openly with the global innovation community, Nokia Bell Labs is inventing the technology solutions that will transform the connected world, enhancing the speed, capacity, efficiency and reliability of data, and the increasing automation and digitization of our lives and entire industries. For 90 years, scientific breakthroughs at Nokia Bell Labs have fundamentally transformed the Information Communications Technology (ICT) industry and its effect on humankind which have led to many distinguished awards including 9 Nobel Prizes.



W14: Central Statistics Office

The Central Statistics Office (CSO) is Ireland's national statistical office whose purpose is to collect, analyse and make available impartial statistics about Ireland's people, society and economy. At national level, CSO official statistics inform decision making across a range of areas including education, health, welfare, transport & infrastructure, the environment and the economy. At European level they provide an accurate picture of Ireland's economic and social performance and enable comparisons between Ireland and other countries. The CSO publishes all official statistics on www.cso.ie free of charge. Most of our data is available in an open data format to allow for the widest possible use.



W15: Cook Medical

Since 1963 Cook Medical has worked closely with physicians to develop technologies that eliminate the need for open surgery. Today we are combining medical devices, biologic materials, and cellular therapies to help the world's healthcare systems deliver better outcomes more efficiently. We have always remained family owned so that we have the freedom to focus on what we care about: patients, our employees, and our communities. Find out more at <http://www.cookmedical.eu> and for the latest news follow us on Twitter, Facebook, Instagram and LinkedIn.



W16: Janssen Pharmaceutical Sciences UC

Janssen Pharmaceutical Sciences Unlimited Company has been manufacturing bulk active pharmaceutical ingredients in Cork since 1981. Products are sold throughout the world to other Janssen and third party companies, where they are further processed into tablets, creams, or injectable dosage forms. These finished products are used in treatment of a range of disorders.

Janssen Sciences Ireland UC

Janssen Sciences Ireland UC established its operation in Ringaskiddy in 2005 on a 100 acre site with an investment of €500 million. For more than 25 years we have been a global leader in the field of biomedicines, in particular pioneering monoclonal antibody technology, a cutting-edge approach to producing medicines that launched a new generation of products to treat immune related diseases.

The facility in Ringaskiddy is producing biomedicines for both the treatment of immune related diseases and new and innovative cancer treatments. In 2017, Janssen Sciences Ireland UC announced that it is to invest more than €300 million in the expansion of its manufacturing plant that will create more than 200 new jobs.



W17: Alexion

Alexion, founded in 1992 by Steven Squinto and Leonard Bell, is a global biopharmaceutical company focused on serving patients and families affected by rare diseases through the discovery, development and commercialization of life-changing therapies. Alexion employs 2,500 people and serves patients in 50 countries worldwide. The company has pioneered the complex field of complement biology and delivered solutions for patients with devastating complement-mediated and metabolic disorders. As well as their expertise in complement biology and metabolic disorders, they have also made progress in the treatment of diseases within the fields of haematology, nephrology and neurology.



W18: National Teacher Awards

The National Teacher Awards is in its third year and celebrates secondary school teachers who make life better for people around the world. Lilly has been in Ireland since 1978 and employs around 1,300 people. The manufacturing campus in Kinsale employs over 700 people, and uses complex chemical synthesis & biotechnology manufacturing processes to make active ingredients for medicines across therapeutic areas such as oncology, immunology and diabetes. The mission of the Kinsale facility is to support the commercialisation, manufacture and supply of many of the newest medicines in Lilly's portfolio.



W19: Eli Lilly

Lilly is a global healthcare leader that unites caring with discovery to create medicines that make life better for people around the world. Lilly has been in Ireland since 1978 and employs around 1,300 people.

The manufacturing campus in Kinsale employs over 700 people, and uses complex chemical synthesis & biotechnology manufacturing processes to make active ingredients for medicines across therapeutic areas such as oncology, immunology and diabetes. The mission of the Kinsale facility is to support the commercialisation, manufacture and supply of many of the newest medicines in Lilly's portfolio.

Established in 2010, the Global Business Solutions centre in Little Island employs over 600 people and is a centre of excellence in functions such as finance, medical information and clinical trial capabilities.

Lilly also employs a sales & marketing team in Ireland, focused on diabetes, immunology and oncology therapeutic areas.



W20: Alcon

Cork, Ireland is home to Alcon's European manufacturing center for intraocular lenses.

The Cork facility was established in 1991 and acquired by Alcon in 2000 with the acquisition of Summit Autonomous Inc. In 2006, the Cork plant began manufacturing Alcon's intraocular lenses (IOLs), which replace the eye's natural lens in cataract surgery.

A cataract occurs when the eye's lens becomes cloudy over time, impairing vision. Cataracts are the leading cause of treatable blindness worldwide. Cataract surgery is the most frequently performed surgery in the world and Alcon's IOLs are the most frequently implanted lenses worldwide.

Alcon's Cork facility employs over 450 associates. Alcon employs professionals with the skills and passion to meet the expectations of our customers, as well as the regulatory bodies. At Alcon quality and precision are critical.

Patients are at the center of everything we do and at the heart of our commitment to quality. The Alcon facility in Cork is certified to ISO 13485, is MDD compliant and is an FDA approved manufacturing site.



REGENERON *science to medicine®*

W21: Regeneron

Regeneron is a leading biotechnology company that invents life-transforming medicines for people with serious diseases. The company was founded in 1988 and is headquartered in Tarrytown, New York.

Regeneron's state-of-the-art Industrial Operations and Product Supply (IOPS) facility in Limerick is the largest scale bulk biologics production facility in Ireland. The facility became operational in 2015. IOPS is responsible for the production, packaging, labelling and delivery of Regeneron medicines. IOPS manufactures a broad range of biopharmaceuticals for patients worldwide, including therapeutic proteins approved for marketing by regional or national regulatory agencies and those involved in clinical studies.

In addition to the production facility in Limerick, the company has a Dublin office, currently employing more than 30 people and serving as the company's European Business Administration headquarters.



W22: Portwest

Portwest is a global manufacturer and distributor of workwear, safety wear and PPE. Established in 1904, Portwest is the fastest growing workwear company in the world with a global distribution network and customer service staff in over 130 countries.

Employing over 3000 people worldwide, Portwest has a team of world class designers who specialise in flame-resistant and high-visibility, workwear, hand and foot protection, Personal Protective Equipment and wearable technology. Market leaders in safety, Portwest's award winning team is constantly researching the latest trends and innovations which influence new collections and products.



W23: Trinity College Dublin

We live in a scientific world, where science and technology have a growing impact in all aspects of our lives. A scientific education is your passport to that world. Our science courses span four broad domains:

- TRO60 Biological and Biomedical Sciences
- TRO61 Chemical Sciences
- TRO62 Geography and Geoscience
- TRO63 Physical Sciences

Each has a customised curriculum for the first two years, leading to diverse degree subject options in third and fourth year, from Astrophysics to Zoology, and from Neuroscience to Nanoscience. To ensure a broad learning experience, students can take elective modules in languages and the arts and humanities, and also have the opportunity to study modules in Science Education and Communication and the History, Philosophy and Ethics of Science.

Students will learn from scientists at the very forefront of their fields, and in their final year will carry out an individual capstone research project in the laboratory of one of our faculty members. The result is a rigorous and internationally recognised training in your chosen field, along with demonstrated transferable skills and graduate attributes sought after in all careers.

Future-proof yourself at Trinity! See more at: www.tcd.ie/Science.



W24: Science and Technology in Action

Would you be more inspired to learn if the curriculum related to the real world of work?

Science & Technology in Action (STA) is where industry and education meet. It is an innovative teaching and learning resource which links the real world of work in our organisations to the STEM curricula. For use by second level teachers and students, all the resource materials across the fourteen editions (over 170 lessons) are available on www.sta.ie and the latest 14th edition hard copy packs have been delivered to every second level school free of charge.

Each lesson in the pack relates to the activities of one of the participating organisations whilst also linking to the curriculum. In this way, the lessons enhance the relevance of the science students are learning. This grounding in reality is designed to engage students in the excitement and vast opportunities the real world of science and technology presents.



W25: Sightsavers

W25: SightSavers

Sightsavers is an international organisation working with partners in more than 30 countries to prevent and cure avoidable blindness and to support people with disabilities to live independently. 75% of blindness in the world is avoidable or curable and 89% of people who are blind live in developing countries. Every year we prevent blindness and restore sight for millions of people. In developing countries, educational and occupational support for those who lose their sight is difficult to access. People with disabilities deserve the same opportunities as everyone else. Sightsavers supports people who are visually impaired or have other disabilities to live independently, get an education and earn an income. We work with national governments, strengthening systems that tackle the problems at the root: the sorts of things most of us take for granted, like access to clean water, sanitation facilities and education. Sightsavers changes lives for the better, for the long term.



W26: CoderDojo / The Raspberry Pi Foundation

CoderDojo is an open source volunteer led movement of free coding clubs for young people aged 7-17. CoderDojo clubs (Dojos) run all over the world giving young people the opportunity to learn how to develop computer code, websites, apps, programs, games, digital media and to explore technology. In addition to technology skills, young people enjoy the opportunity of being involved in a highly social community and experience a fun, collaborative and energetic learning environment. Learn more at coderojo.com

The Raspberry Pi Foundation is a charity that aims to put the power of computing and digital making into the hands of people all over the world. We provide low-cost computers that people use in industry, to learn, and to make stuff that matters to them.

We work with kids all over the world through free Code Clubs and CoderDojos; we train teachers and provide free tutorials; and we support volunteers, teachers and parents to help people everywhere learn about computing.

Find out more at www.raspberrypi.org

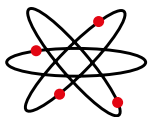


W27: CISCO

Cisco is the worldwide technology leader that has been making the Internet work since 1984. If you can imagine it, Cisco will build a bridge to get you there. Cisco is short for San Francisco, and for our logo, way back in 1984, we chose the Golden Gate Bridge because it was emblematic of what the company would do. Just as the bridge spans a body of water, Cisco's promise was to securely connect people, places, ideas, and things across a network. Which is why over 80% of the world's traffic travels securely across Cisco connections. In nearly every country, on six continents, the people of Cisco are busy listening, innovating, and building the next era of connections. Building bridges between the network as we know it and the network of what can be, between secure and impenetrable, and between collaboration and making it humanly so. 74,200 strong, each individual a bridge unto themselves - committed to the customer, committed to their communities, and committed to the world at large. We are 400 strong in Ireland, in Galway and Belfast we write software that powers team collaboration across the globe, from Dublin we serve customers across Europe, the Middle East, Africa and Russia. Locally we work with government, industry and the education sector to help digitise Ireland.

We are proud to work with BT Ireland as a sponsor of the BT Young Scientist and Technology Exhibition (BTYSE), it is a fantastic event which develops the next generation of leaders in science and technology, future bridge builders.

THE WORLD OF SCIENCE & TECHNOLOGY



RTÉ

W28: RTÉ

Explore RTÉ at the BT Young Scientist & Technology Exhibition 2019! Join us for an exciting lineup of activity across television, radio and digital services. We're talking lots of lights, cameras and action as RTÉ broadcasts programmes from the stand, including live RTÉ Weather bulletins! We'll have a schedule packed with live radio broadcasts from our custom built studio with your favourite presenters on hand to shout out to your friends at home. Visitors can try their hand at presenting the weather forecast and you might even get the chance to interview your favourite presenter! Be sure to come along and enjoy lots of music and entertainment. Check out the RTÉ stand and keep up-to-date with RTÉ on Twitter, Facebook and Instagram.



W29: Analog Devices

At Analog Devices, we create unmatched technologies and solutions to solve our customers' problems in industrial, communications, automotive, healthcare, consumer, and other industries. Our solutions play a key role in translating real-world phenomena like motion, sound, light and electromagnetic forces into electronic signals and back again. Innovation has always been a hallmark of Analog Devices, since our inception in 1965. Headquartered in Boston, USA, with 15,000 employees across 23 countries, Analog Devices' has over 42 years presence in Ireland; with development centers in Limerick and Cork employing over 1,300 people addressing our customers' toughest problems and enabling important new discoveries. Discoveries that help solve some of the most complex and impactful challenges of our time: from detecting gravitational ripples in the fabric of space-time to enabling next-generation autonomous and electric vehicles. Innovations that stem from engineers with a passion and vision to stay ahead of what's possible.

Analog Devices is proud to support the BT Young Scientist & Technology Exhibition and view our support as added encouragement to students in 2nd level education to consider areas in Science and Technology their future career choices. Irish Engineers working with Analog Devices hold the largest number of US patents in Ireland because we just love to invent and innovate! Our engineering team would like to welcome you to our stand in the Technology Hall where they will open your mind to some fun, interesting and downright weird applications of science and technology in everyday life. Come and test your skills and scientific understanding with some of the demos we have on display this year. Can you escape from the Laser Vault and avoid breaking the laser beams? What's new in our technology corner? Create your own worlds with an interactive topographical map. Don't fall down the well! Teach our AI vision system to identify humans from cyborgs, but most of all visit our stand to stimulate your interest in the amazing world of Science and Technology.



W30: National College of Ireland

National College of Ireland is at the heart of Dublin's International Financial Services Centre, with its very own Luas Stop: Mayor Square – NCI. The campus never sleeps, as NCI provides both full-time and part-time courses, from certificate level through to Masters, specialising in computing, business, accountancy, finance, human resources, learning and teaching and psychology. The smaller class sizes and focus on support and well-being means that students have a more direct relationship with lecturers. First Year students are guaranteed on-campus accommodation, and Clubs and Societies make it easy for people to make friends. For 70 years, NCI has been a leading provider of graduates with the skills and knowledge to meet the emerging needs of the Irish economy. The college has forged strong links with employers and has achieved the highest graduate employment rate in Ireland at 98%.

Visit the National College of Ireland stand to learn how core STEM skills are essential to many career paths – meet with lecturers in psychology, data analytics, computing, accounting and business. NCI can help you build on your BTYST skills to complete an academic qualification or, perhaps, encourage you to commercialise your idea while studying marketing or business.

There are spot prizes for those who share #BTYST #MyNCI posts on Twitter or Instagram tagging @NCIRL – just show your post to anyone at our stand.

www.ncirl.ie



W31: The Marie Keating Foundation

Following the death of their mother, Marie, in 1998, the Keating family promised that they would do everything they could to bring an end to cancer. They are committed to provide families with the necessary information to prevent cancer or detect it at its earliest stages. Through its community information service, the Foundation's dedicated nurses have spoken to over 235,000 people about the causes and risk factors of cancer. The Foundation also raises awareness of the most common cancers affecting both men and women in Ireland through national campaigns. Through its Comfort Fund, the Marie Keating Foundation provides financial assistance to people who are receiving treatment for any kind of cancer and who find themselves in financial difficulty as a result. In 2017 to date over 486 families received assistance from the Comfort Fund. The Foundation also supports cancer survivors through its free Survive & Thrive programmes which are held for men and women nationwide.



W32: Irish Science Teachers Association

The Irish Science Teachers' Association (ISTA) is the largest subject association in the country. It was founded in 1961 and has over 1400 members from all sectors of education. The ISTA functions as a body dedicated to the professional development of its members and the advancement of science teaching. The ISTA maintains links with other bodies involved in science education in Ireland and associations for science education in other countries. ISTA representatives on each of the National Council for Curriculum and Assessment (NCCA) subject course committees are involved in the development of new curricula. Members may join the association online via its website at www.ista.ie. The website provides members with details of local branch meetings and national events as well as allowing communication between members via the forum facility. All members receive three issues of the ISTA journal Science during the year. BioPharmaChemical Ireland sponsors the ISTA annual science quiz for senior science students, which is held during science week. Further details of ISTA activities may be obtained from the ISTA desk or at www.ista.ie

IOP Institute of Physics in Ireland

W32A: Institute of Physics in Ireland

There will be hands on action at the Institute of Physics stand as we put the fun into fundamental physics. Try your hand at light colours, shadows and much more more. Along with exhibits and demos you won't leave empty handed as you can pick up plenty of posters, details on hundreds of physics career options and a guide to all the third level physics courses in Ireland.



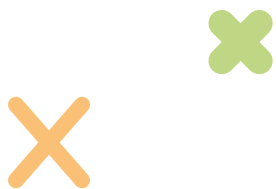
W33: CIT's Blackrock Castle Observatory (BCO)

CIT's Blackrock Castle Observatory (BCO) is an award-winning science and discovery centre housed in an iconic 16th century Cork landmark.

Meet the BCO Team at the Young Scientist 2019 at the StarDome planetarium and explore the wonders of the Universe! Astronomers will take you on a trip around the night sky with special attention to the Moon as we celebrate the 50th anniversary of the Moon Landings this year. 2019 is also the 100th anniversary of the International Astronomical Union.

Throughout the Young Scientist, BCO and astronomy partners will participate with astronomy friends worldwide in celebrating 100 Hours of Astronomy. Join us and be in with a chance to win a telescope signed by NASA astronaut Dan Tani!

In association with the European Space Education and Resource Office in Ireland, BCO runs year-round school programmes and CPD for teachers. Ask us about Space Week, CanSat and other STEM Week projects.



W34: Coláiste Uisce

Colaiste UISCE is a unique activity based Irish Language College and Adventure Centre situated in the heart of Gaeltacht Iorras, where the teaching adventure and water sports. Learning Irish is Fun is our motto at Colaiste UISCE. We now have over 24 years experience in providing safe, educational and enjoyable Irish and Adventure courses. The teaching of Irish through the thrilling medium of adventure sports helps students develop a positive attitude towards learning Irish. We believe that creating a positive environment to learn the language is the most important step towards learning the language. Students from Colaiste UISCE not only return from the Gaeltacht speaking Irish with increased ease but they will also have a greater understanding of the language as a result of our practical approach to teaching the language of Irish is intertwined with the enjoyable experience of modern exhilarating.



W35: Coláiste Na Rinne, Gaeltacht na nDéise, Co. Phort Láirge

Tá Coláiste na Rinne suite i nGaeltacht na nDéise i gCo. Phort Láirge. Bunaíodh Coláiste na Rinne i 1905 agus tá cúrsaí éagsúla idir lámha ann le breis is céad bliain anois. Bíonn Scoil na Leanaí ar siúl ó Mheán Fómhair go deireadh Bealtaine, bíonn Cúrsaí Samhraidh ann i mí an Mheithimh, i mí Iúil agus i mí Lúnasa. Thosaigh cúrsa nua don Idirbhliain i mbliana. Eagraítear cúrsaí do mhic léinn, lucht ollscoile agus daoine fásta freisin i gcaitheamh na bliana. Tugann Gaelscoileanna, Gaelcholáistí agus scoileanna eile turais - 3 lá nó 5 lá - ar Ghaeltacht na nDéise freisin. Tá gach eolas maidir le Coláiste na Rinne ar fáil ag www.anrinn.com. Coláiste na Rinne has been promoting the Irish Language, the cultural and heritage of Gaeltacht na nDéise, for over 100 years. It provides many different courses in Irish and through the medium of Irish to a wide variety of students each year. See the College website for all information www.anrinn.com



UNIVERSITY of LIMERICK
Ollscoil Luimnigh

W36: University of Limerick

UL's (www.ul.ie) stand provides you the opportunity to experience interactive activities in Biology, Chemistry, Physics, Mathematics, Engineering, Electronics, Equine Science, Architecture, Design, Computer Science, Gaming and much more. The Faculty of Science and Engineering (www.scieng.ul.ie) offers teaching and research programmes in a wide range of industry relevant scientific and engineering disciplines. All UG programmes include periods of co-operative, industrial or teaching experiences. Its world-leading research translates into practice and the academic programmes offer unique & sustainable careers. If you are interested in studying artificial intelligence, the pursuit of renewable energy technologies or the development of innovative company solutions find out more about the opportunities available at our stand.



W37: University College Cork

Visit UCC's "Walk Like A Dinosaur" Exhibit: a fantastic interactive experience featuring our world-renowned palaeontologists. Check out our exhibit and figure out what kind of dinosaur you walk like. See if you can top our leaderboard! Learn about the science behind fossil footprints. Be fascinated by our real-life dinosaur fossils!



W38: National University of Ireland Galway

The students and staff of the College of Science at NUI Galway maintain vigorous research activity across the full range of Science disciplines including Chemistry, Physics, Mathematics, and the Biological, Biomedical, Environmental and Marine Sciences.

At our stand you can experience the thrill of scientific research by participating in STEM activities presented by three of our educational outreach programmes. Cell EXPLORERS, an initiative run by the School of Natural Sciences, promotes biological and biomedical sciences;

Kitchen Chemistry proposes hands-on activities inspired by our Chemistry researchers; the Neuroscience outreach team showcases their recent advances in brain research. Visit our stand to participate in these activities, as well as studying Science at NUI Galway, whether your interests are in biology, chemistry, physics, mathematics, health science, earth or marine science, environmental science or any combination of these.



W39: DCU Faculty of Science and Health

The DCU Faculty of Science and Health is an internationally recognised centre of excellence in scientific innovation and health transformation. We are committed to delivering an education that will equip students with a skills set appropriate to a successful and rewarding career that is of global significance and has direct social, environmental and economic benefit. DCU Faculty of Science and Health. E: science@dcu.ie W: <http://www.dcu.ie>



W40: Maynooth University

Maynooth University has provided generations of students with an excellent university education, which has touched and changed the lives of each one and has enabled and empowered remarkable achievements. Building on our proud past, we are constantly adapting what and how we teach to better equip you for the many opportunities and challenges you will encounter in your life and in your career.

By studying Science or Engineering at Maynooth, you are joining a research tradition that can trace its roots to the first professors of the Royal College of St Patrick, founded in 1795. The Faculty of Science and Engineering at Maynooth University comprises the Departments of Biology, Chemistry, Computer Science, Electronic Engineering, Experimental Physics, Theoretical Physics, Mathematics and Statistics, and Psychology.

The Maynooth University curriculum, offers you many opportunities to personalise your degree programme throughout your time with us; we have introduced more subject choice than ever before including a dedicated first year Critical Skills subject, flexible programme pathways and the opportunity to take an Elective and Experiential Learning opportunities to enhance your degree.

connecting women in technology

W41: CWIT

Connecting Women in Technology (CWIT) is a voluntary network for women with the vision to harness the power of the collective voice of the technology industry in Ireland to raise the profile of the women in technology sector in order to attract more females into careers in technology and provide opportunities to retain and promote those already working in technology sector. CWIT was founded by Accenture, Dell and Microsoft in 2011, and has now grown to 18 member companies, including; BT, Dropbox, Eir, Ericsson, EY, Facebook, Google, Hewlett Packard Enterprise, IBM, Intel, LinkedIn, Twitter, Virgin Media, Vodafone and Xilinx.



W42: Studyclix

Studylix is Ireland's largest study website and is used by over 150,000 students and more than 90% of teachers. Studylix breaks all the junior and leaving cert subjects into topics and for each topic gives you past exam questions, marking schemes and videos and sample answers. Come visit us at the Studyclix stand to get discount vouchers and loads of other free stuff. Teachers should also come see us to find out how you can get set up for free and get Studyclix for your class.



E01: Geological Survey Ireland

What's underneath Ireland's sea bed? How do I know if I've struck gold? What makes the ground shake during an earthquake? Where is the oil and gas offshore Ireland?

The Geological Survey Ireland stand is here to help you discover the world beneath our feet. Let us show you the tools and techniques that Ireland's geoscientists use to investigate the secrets that lie under the earth's surface and how they affect our daily lives! Our stand is brought to you by the Geological Survey Ireland and the Petroleum Affairs Division, both divisions of the Department of Communications, Climate Action and Environment. We are proudly joined by our partners from the Dublin Institute for Advanced Studies and the National Museum of Ireland.



E02: An Garda Síochána

The Garda Road Safety Unit

The Road Safety Unit's overall aim is the reduction of road deaths and serious injuries and the improvement of road safety generally. The Unit, based in the Garda National Roads Policing Bureau and established in 2001, delivers presentations on Road Safety to a number of groups in the community including:-

- Schools and colleges
- Youth Clubs
- Local organisations
- Industry groups

The Unit's presentation, It won't happen to me, is mainly delivered to Transition Year students but can be adapted to cater for all audiences. It is a stand alone road safety presentation covering all the road safety ingredients including speed, alcohol, seatbelts, fatigue, distractions and consequences. It is delivered in a shock/ humorous manner and is designed to change attitudes and behaviour.

The Unit also provides Road safety information in the "Traffic Watch" segment of the CrimeCall programme and at major public exhibitions such as The Young Scientist Exhibition, The National Ploughing Championships and a variety of car and motorcycle shows.



An Roinn Cultúir,
Oidhreacht agus Gaeltachta
Department of Culture,
Heritage and the Gaeltacht

E03: The National Parks & Wildlife Service

The National Parks and Wildlife Service is part of the Dept. of Culture, Heritage and the Gaeltacht, and has responsibility for the protection and conservation of Ireland's natural heritage and biodiversity at national government level. Our stand in the EcoZone will have exhibits, information and other materials available, plus a chance to meet our staff to discuss activities and school programmes available within the NPWS.

Education & visitor centres

The NPWS Education & Visitor Centres around the country offer various activities and learning opportunities for teachers and students alike. Our Education Officers have designed school programmes aimed at promoting awareness of, knowledge and an appreciation of our biodiversity.

NBAP

Our recently published National Biodiversity Action Plan 2017-2021 is to bring biodiversity concerns into the mainstream and to foster an increased awareness of biodiversity across all sectors of society.

Further information on all of the above is available on www.npws.ie



E04: Environmental Protection Agency

The Environmental Protection Agency is at the front line of environmental protection and policing. We ensure that Ireland's environment is protected

from the harmful effects of radiation and pollution. We also monitor changes in environmental trends to detect early warning signs of neglect or deterioration.

We have a wide range of functions to protect the environment, and our primary responsibilities include:

- Environmental licensing
- Enforcement of environmental law
- Environmental planning, education and guidance
- Monitoring, analysing and reporting on the environment
- Regulating Ireland's greenhouse gas emissions
- Environmental research development
- Strategic environmental assessment
- Waste management
- Radiological protection

Part of our role is to monitor water quality of rivers and lakes in Ireland. Visit our stand to find out more about our hovercraft helps us to complete this role. Check out the 'water bugs display' and learn what these can tell us about Ireland's water quality.



An Roinn Talmhaíochta,
Bia agus Mara
Department of Agriculture,
Food and the Marine

E05: Department of Agriculture, Food and the Marine

The mission of the Department of Agriculture, Food and the Marine is to serve the government and people of Ireland by leading, developing and regulating the agri-food sector, protecting public health and optimising social, economic and environmental benefits. The work of the Department's Laboratory Service is a key component of the organisation with regard to the provision of scientific advice, ensuring the safety of Irish food and safeguarding public, animal and plant health.

Science plays a vital role in underpinning policy making within DAFM and we are delighted to sponsor an award to encourage and recognise the contribution of young scientists.



E06: Petroleum Infrastructure Programme (PIP)

The Petroleum Infrastructure Programme is a government/industry/academic research initiative that addresses Ireland's energy scarcity by developing Irish expertise in petroleum exploration; funding exploration research in Irish universities and other third level institutions; and encouraging collaboration between the petroleum exploration industry and Irish researchers.

The objective of our participation in the BT Young Scientist and Technology Exhibition is to promote the exciting activities and career opportunities in earth science, in particular in earth science research and the petroleum industry.

At our stand you will find rock samples recovered from 10,000ft below the seabed offshore Ireland; teaching notes and student exercises; seismic sections of Ireland's offshore geology; plate tectonic animations and inspiration for student projects.

Young earth science graduates will be on the stand to explain why they studied geology and describe a typical day in the life of an exploration geologist.



YOUNG SCIENTISTS
TANZANIA



YOUNG SCIENTISTS
KENYA



E07: Young Scientists Tanzania, Young Scientists Kenya, YS UAE

The BT Young Scientist and Technology Exhibition is the main activity of a charitable trust, Young Scientist & Technology of the Year Limited. The trust has worked with some important entities outside and has granted licensing arrangements to stakeholders in Tanzania, Kenya and the United Arab Emirates to allow them to operate the Young Scientist model in these countries. The first Young Scientist Tanzania took place in 2012, in 2018 Kenya held their first Young Scientist and in a few short weeks the United Arab Emirates version of the exhibition takes place. Please see page 43 for more details.



Self Help Africa

E08: Self Help Africa

Self Help Africa is a leading international development charity with an expertise in small-scale farming and growing family-farm businesses. Self Help Africa currently works in eight core African countries, tackling poverty and improving the lives of local communities. The organisation works both with its own African staff, and through local partners to undertake a range of integrated development programmes amongst rural communities.

Irish Aid is the Irish Government's programme for overseas development. The programme is managed by the Development Co-operation Division of the Department of Foreign Affairs and Trade. The aim of their aid programme is to reduce poverty, hunger and humanitarian need, with a particular focus on sub-Saharan Africa and Vietnam. By supporting long term development and providing humanitarian assistance in over eighty countries, on behalf of the Irish people, they are helping to build better futures for some of the world's poorest communities.

D U B L I N



E09: Dublin Zoo

Dublin Zoo.... Learn something new!

Dublin Zoo, home to some 400 animals, is an environment where education and conservation combine for an exciting and unforgettable visitor experience. Dublin Zoo's new state-of-the-art Discovery and Learning Centre offers a range of exciting, interactive and structured educational programmes, workshops and resources, tailored to meet the specific needs of all groups.

Our school programmes and primary outreach sessions are designed to support the curriculum while capturing the curiosity of your students in a stimulating environment. Meet our Discovery and Learning Team at Stand No: E09 for lots of fun and learning including biofacts, details about careers with animals and the chance to enter an exciting competition to win a class trip to Dublin Zoo!

For more information on our education programmes call (01) 474 8932, email education@dublinzoo.ie or visit www.dublinzoo.ie.



E10: Order of Malta

The Order of Malta Ambulance Corps is a voluntary ambulance and first aid organisation with over 4,000 volunteers involved in over 80 units across the Island of Ireland. We are a major provider of excellence in first aid training, ambulance cover at large events, patient transport, community care, nursing services and assistance to other charities in most of the major cities and towns across the island of Ireland. Caring for the community The Ambulance Corps is committed to providing caring services in a Christian, caring and non-discriminatory manner, to 'Our Lords, the Poor and the Sick'. Order of Malta Ambulance Corps, providing excellent standards of first aid training, community care facilities and services, delivered by people who care, with quality assured standards of training. We operate over 165 ambulances, rapid response 4's, mobile accident and emergency suites, support vehicles, medical bikes and command centres. Our headquarters also houses a command and control centre to coordinate vehicles and personnel in the event of a major incident. We are an entirely voluntary organisation and we receive no state funding. Should you have any queries or would be interested in joining us, come along and visit us at our stand.



Rialtas na hÉireann
Government of Ireland

E11: Irish Aid

Irish Aid is the Government overseas development programme, which works to reduce poverty, hunger and humanitarian need around the world. By supporting long term development and providing humanitarian assistance in over eighty countries on behalf of the Irish people, we are helping to build better futures for some of the world's poorest communities. Our focus is on reducing hunger

and improving resilience; inclusive and sustainable economic growth; better governance, human rights and accountability.

Ireland is playing its part in addressing poverty, injustice and climate change and achieving the UN Sustainable Development Goals (SDGs) in these priority areas. The 17 Goals cover a wide range of areas, and address the many causes of poverty, injustice and damage to our planet. Scientific innovation will be critical in achieving all the Goals by 2030, and the Irish Aid Science for Development Award at BTYTE recognises the important contribution young people can make to solving this challenge. The Goals are universally applicable – meaning they apply to both developed and developing countries, and are as relevant to Ireland as any other country. The final set of negotiations at the UN was co-facilitated by Ireland and Kenya and culminated in the agreement entitled: Transforming Our World: the 2030 Agenda for Sustainable Development.

Irish Aid also organises African drumming workshops at the Exhibition to engage students through music in the thriving culture of our African partner countries, and the importance of building sustainable connections with our partners.



E12: 112 ECAS

112, the pan European emergency number to dial across 35 countries when you need an ambulance, fire brigade, police or coastguard. With the increased frequency of travel across the EU, millions of people could be faced with this problem. Fortunately, there is no need to look up and remember the emergency numbers for each EU country you are visiting. Just remember 112! 112 is your pan-European number to access Emergency Services whilst travelling within the EU. In Ireland, 999 and 112 exist equally and run in parallel. Regardless of which number you call in Ireland, the call will be handled in the same manner.

112 is accessible in the following EU countries:

Albania, Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Turkey and United Kingdom.

SAMSUNG

SAMSUNG and the Science Museum Group: Space Descent VR with Tim Peake

Samsung inspires the world and shapes the future with transformative ideas and technologies. The company is redefining the world of TVs, smartphones, wearable devices, tablets, digital appliances, network systems, and memory, system LSI, foundry and LED solutions.



The Road Safety Authority

Our mission

The aim of the Road Safety Authority is to save lives and prevent injuries by reducing the number and severity of collisions on the road. This is reflected in our maxim, Working to Save Lives.

Objectives

Providing a safe environment for all road users and promoting the efficient use of our road network are our twin aims.

Key functions

The RSA works to improve road safety in Ireland by:

- Developing and implementing information and education campaigns to increase awareness of road safety and promote safer driving
- Improving vehicle standards
- Establishing and monitoring a standard for driver instruction
- Overseeing the system of driver licensing and undertaking certain enforcement activities
- Working with stakeholders to ensure a coordinated response and ensure our collective resources are used wisely and efficiently
- Undertaking accident and road safety research in order to develop measures and recommendations to improve road safety
- Advising the Minister.



55 YEARS OF



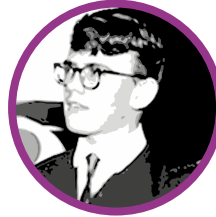
1965

John Monahan



1966

Máire Caitríona Ní
Dhomhnaill / Mary Finn



1967

Walter Hayes R.I.P.



1968

George Andrew
Reynolds



1969

Luke Drury



1975

Noel Boyle



1976

Mary Kelly-Quinn



1977

Micheal Og O'Briain



1978

Donald P McDonnell



1979

Jervis Good



1980

Karen Ruddock



1987

Emma Donnellan,
Henry Byrne



1988

Siobhan Lanigan
O'Keeffe



1989

Grace O'Connor,
Sinead Finn



1990

Anna Minchin-Dalton



1991

Barry O'Doherty,
Daniel Dundas



1992

Elizabeth Dowling,
Jean Byrne R.I.P.



1999

Sarah Flannery



2000

Thomas Gernon



2001

Shane Browne,
Peter Taylor,
Michael O'Toole



2002

David Michael
O'Doherty



2003

Adnan Osmani



2009

John D. O'Callaghan,
Liam McCarthy



2010

Richard O'Shea



2011

Alexander Amini



2012

Eric Doyle,
Mark Kelly



2013

Ciara Judge,
Emer Hickey,
Sophie Healy-Thow



2014

Paul Clarke

INNOVATION



1970

Maria Edgeworth



1971

Peter Short



1972

Seán Mac Fheorais



1973

Tadgh Begley



1974

Richard Elliott



1981

Catherine Conlon



1982

Martynn Sheehan



1983

William Murphy,
Gareth Clarke,
Turan Mirza



1984

Eoin Walsh



1985

Ronan McNulty



1986

Breda Maguire,
Niamh Mulvaney



1993

Donal Keane,
Rodger Toner



1994

Jane Feehan



1995

Brian Fitzpatrick,
Shane Markey



1996

Elsie O'Sullivan,
Rowena Mooney,
Patricia Lyle



1997

Ciara McGoldrick,
Emma McQuillan,
Fiona Fraser



1998

Raphael Hurley



2004

Ronan Larkin



2005

Patrick Collison



2006

Aisling Judge



2007

Abdusalam Abubakar



2008

Emer Jones



2015

Ian O'Sullivan,
Eimear Murphy



2016

Diana Bura,
Maria Louise Fufezan



2017

Shane Curran



2018

Simon Meehan



2019

Winner announced
Friday 11th January



THE PRIMARY SCIENCE FAIR AT THE BT YOUNG SCIENTIST & TECHNOLOGY EXHIBITION

ABOUT THE FAIR

The Primary Science Fair has been an integral part of the BT Young Scientist and Technology Exhibition since it was developed in conjunction with the Department of Education and Skills in the early 2000's. Primary school pupils study science as part of the Primary School Curriculum as one of three subjects in the area of Social, Environmental and Scientific Education (SESE) and it is students in 3rd – 6th class that are taking part in The Primary Science Fair 2019. The curriculum provides excellent opportunities for primary school pupils to explore, investigate and develop an understanding of the natural, human, social and cultural dimensions of local and wider environments; to learn and practice a wide range of skills; and to acquire open, critical and responsible attitudes and these are what these projects are about. We see The Primary Science Fair as a starting point for pupils to get involved in science and hopefully become the participants

of the future in the BT Young Scientist and Technology Exhibition.

The BT Young Scientist and Technology Exhibition is the main activity of a charitable trust Young Scientist & Technology of the Year Limited and The Primary Science Fair is run alongside the BTYTE by BT on behalf of this trust. The trust also works by way of licensing arrangements with stakeholders in Tanzania, Kenya and the United Arab Emirates to allow them to operate the Young Scientist model in these countries.

We would like to thank our judges for The Primary Science Fair who are all previous winners of the BT Young Scientist & Technology Exhibition.

The Primary Science Fair 2020 will be launched alongside the BTYTE in the next few months and entries will be submitted in September.



THURSDAY 10 JANUARY

Are fruit and vegetable juices effective cleaners?

Brannoxtown Community National School

Co Kildare

Airport Physics

Dublin Home Education

Co Dublin

Hydraulic Power

Faughart Community National School

Co Louth

Can seaweed be used as a fuel?

Learning Hub Limerick

Limerick

Forget the diet, move to Mars!

Moyderwell Mercy Primary School

Co Kerry

Can computers sing?

Presentation Primary School Portarlington

Co Laois

Can different sounds affect our concentration?

Primrose Hill National School

Co Kildare

Active Mornings

Rush and Lusk Educate Together National School

Co Dublin

The Mozart Effect

Rush and Lusk Educate Together National School

Co Dublin

Which antacid is the most effective?

S.N. Phadraig Naofa Avoca

Co Wicklow

Do Sports Drinks work?

Scoil na Maighne

Co Tipperary

Growth in the Use of Composites Around Us

Scoil na nÓg

Co Cork

Air Pollution in Our Homes

Scoil Naomh Eltin

Co Cork

How do words influence what we see?

SN Colmcill Naofa

Co Kildare

Optical illusions

St Francis Xavier Senior School

Dublin 8

Are we blinded by branding? An investigation to discover if our taste buds are deceived by the brands

St. Aidan's N.S.

Co Kilkenny

Can a BBC Micro:bit improve student engagement in Mathematics?

St. Kevin's GNS

Dublin 24

Come Fly with Us

St. Laurence's NS

Co Wicklow

Investigating how to make a material waterproof

St. Michael's College Junior School

Dublin 4

Can you taste the difference between branded and non – branded foods and drinks?

St. Oliver Plunkett N.S.

Co Dublin

Is it possible to charge a phone using exercise?

Timoleague N.S.

Co Cork

How can I stop my sliced apple/banana going brown in my lunch box?

Tubber NS

Co Westmeath

FRIDAY 11 JANUARY

Can we design and develop a remote control vacuum cleaner?

Adamstown Castle ETNS

Dublin

Ocean pollution and plastic in the ocean

Divine Word Marley Grange N.S

Dublin 16

Bia Cé Mhéad Siúcra, saill agus próitéin atá inár mbia?

Gaelscoil na Giúise

Dublin 24

Fruit Pop

Our Lady Immaculate SNS

Dublin 17

SOS-Sensing Our Senses

Rathdown Junior School

Co Dublin

Make an electronic quiz

Realt na Mara GNS

Co Meath

Brain Power: The Stroop Test- Does age matter?

Réalt na Mara GNS

Co Meath

Cures – a natural way

S.N.Móin Ruadh

Co Kilkenny

Robots vs Humans: Who is the best at Tic Tac Toe

Scoil Bhride Milltown

Co Kildare

It's okay to not feel okay. How can Scoil Choilm's students deal with stress and worry in a healthy way?

Scoil Choilm Community National School

Dublin 15

An investigation into cooling using low grade heat.

Cold from Hot.

Scoil na Leanaí

Co Waterford

Flies – “Our Miniature Hereos”

Scoil Naisiunta Realt na Mara

Co Sligo

Which nappy is the most absorbent?

Scoil San Treasa, Mount Merrion

Co Dublin

Magical Gravity but how can some objects impact the effect of Gravity?

Scoil Uí Chonaill

Dublin 1

Bounce to Brilliance

Seir Kieran's N.S.

Co Offaly

Why do bicycles have gears?

St Brigid's Primary School

Co Kildare

Do babies really resemble their parents?

St. Andrew's College, Booterstown

Co Dublin

Don't sugar coat it: sugar tax, fizzy drinks and what does too much sugar do to our digestive system?

St. Bernadette's Senior National School

Co Dublin

Do we REALLY care about the fate of our planet?

St. Brigid's N.S. Castleknock

Dublin 15

What colour light from the spectrum encourages the strongest growth in plants?

The Good Shepherd National School

Dublin 14

FOR FURTHER INFORMATION

please visit

btyoungscientist.com/the-primary-science-fair-at-btyste

email

primarysciencefair@bt.com

or telephone

1800 924 362

SCIENTIFIC SUE

Sue McGrath aka 'Scientific Sue' is the Director of Science2Life, an outreach educational provider and consultant dedicated to the communication of STEAM (delivering science, technology, engineering and mathematics programmes using the arts to bring them to life) in a passionate and engaging fashion. Her aim is to "effect change, achieve results and make science fun!"



Science of Dragons Show

Join Scientific Sue on this most historical and creative journey of discovery.
(Inspiration from the stories by Cressida Cowell on 'How to Train your Dragon')

Be introduced to Prince – Scientific Sue's dragon whose purple blood can change colour to help him camouflage himself, Norbert – her fire breathing dragon plus find out how you can build your own flying dragon which you can then knock out of the skies!

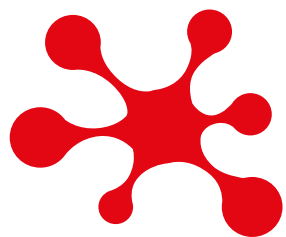
Scientific Sue will need lots of volunteers to help her investigate and explore the science of how dragons fly and then, using some of the science behind the different dragon fire types (steam, icy fog, explosive gases, flammable liquids and of course big flames!) plus some disgusting aspects of dragons' digestion processes.



EXCLUSIVE FOR THE PRIMARY SCIENCE FAIR PARTICIPANTS AT 8.45AM

Check the schedules on pages 64–66 for details





THE BT YOUNG SCIENTIST BUSINESS BOOTCAMP

Driven by innovation, delivered by BT



BT's 10th Business Bootcamp Programme for students

A number of the exhibiting intermediate and senior students from the 2019 BT Young Scientist & Technology Exhibition will be invited to take part in a BT Young Scientist Business Bootcamp in February/March 2019 where they will experience the world of technology commercialisation and entrepreneurship.

We have created this programme to encourage further innovation by our young scientists and provide them with commercialisation skills to carry forward into their careers and lives. The bootcamp will be held at University College Dublin (UCD).

Expanding Business Leadership

As an extension of the BT Young Scientist & Technology Exhibition, the BT Young Scientist Business Bootcamp has enabled BT to take a national leadership role in economic development. BT is collaborating with key private and public sector organisations to create an opportunity to mentor the next generation of Irish innovators and entrepreneurs.

Igniting Entrepreneurial Spirit

We at BT believe that the BT Young Scientist Business Bootcamp helps to bridge the gap between the worlds of education and business and mentor the next generation of young innovators and entrepreneurs.



in association
with UCD Innovate



Check out the BT YS
Business Bootcamp highlights
<https://goo.gl/uBW05y>





Quality Affordable Healthcare Products™



Perrigo Company plc, a leading global healthcare company, delivers value to its customers and consumers by providing *Quality Affordable Healthcare Products™*. Founded in 1887 as a packager of home remedies, Perrigo has built a unique business model that is best described as the convergence of a fast-moving consumer goods company, a high-quality pharmaceutical manufacturing organization and a world-class supply chain network. Perrigo is the world's largest manufacturer of over-the-counter healthcare products and supplier of infant formulas for the store brand market. The Company also is a leading provider of branded OTC products throughout Europe and the U.S., as well as a leading producer of "extended topical" prescription drugs. Perrigo, headquartered in Ireland, sells its products primarily in North America and Europe, as well as in other markets, including Australia, Israel and China.

Visit us at www.perrigo.com

Events schedule

Thursday 10th January

2019



	BT ARENA	CONCERT HALL	CLYDE ROOM FOYER
08:45	Primary Science Fair show		
09:45			
10:00	Ministry of Science		Drumming Workshop
10:15		Beyond Gaming	
10:30			
10:45	Your beautiful biased brain		
11:00			Drumming Workshop
11:15		Space: The next frontier 3D	
11:30	Scientific Sue		
11:45			
12:00			Drumming Workshop
12:15	Ministry of Science	Space: The next frontier 3D	
12:30			
12:45			
13:00	Your beautiful biased brain		
13:15		Space: The next frontier 3D	
13:30			
13:45	Ministry of Science		
14:00			Drumming Workshop
14:15		Space: The next frontier 3D	
14:30	Scientific Sue		
14:45			
15:00			Drumming Workshop
15:15	Your beautiful biased brain		
15:30			
15:45			
16:00	Ministry of Science		Drumming Workshop
16:15			
16:30			

Events schedule

Friday 11th January

2019



	BT ARENA	CONCERT HALL	CLYDE ROOM FOYER
08:45		Primary Science Fair show	
09:45	Ministry of Science		
10:00			Drumming Workshop
10:15		Space: The next frontier 3D	
10:30	Your beautiful biased brain		
10:45			
11:00			Drumming Workshop
11:15	Scientific Sue	Space: The next frontier 3D	
11:30			
11:45			
12:00	Ministry of Science		Drumming Workshop
12:15		Space: The next frontier 3D	
12:30			
12:45	Your beautiful biased brain		
13:00			
13:15		Space: The next frontier 3D	
13:30	Ministry of Science		
13:45			
14:00			Drumming Workshop
14:15	Scientific Sue	Space: The next frontier 3D	
14:30			
14:45			
15:00	Your beautiful biased brain		Drumming Workshop
15:15		Space: The next frontier 3D	
15:30			
15:45	Ministry of Science		
16:00			Drumming Workshop
16:15			
16:30			

Events schedule

Saturday 12th January



	BT ARENA	CONCERT HALL	CLYDE ROOM FOYER
09:45	Ministry of Science		
10:00			Drumming Workshop
10:15		Space: The next frontier 3D	
10:30	Your beautiful biased brain		
10:45			
11:00			Drumming Workshop
11:15	Scientific Sue	Space: The next frontier 3D	
11:30			
11:45			
12:00	Ministry of Science		Drumming Workshop
12:15		Space: The next frontier 3D	
12:30			
12:45	Your beautiful biased brain		
13:00			
13:15		Space: The next frontier 3D	
13:30	Ministry of Science		
13:45			
14:00			Drumming Workshop
14:15		Space: The next frontier 3D	
14:30	Scientific Sue		
14:45			
15:00			Drumming Workshop
15:15			
15:30	Your beautiful biased brain		
15:45			
16:00			Drumming Workshop
16:15	Ministry of Science		
16:30			

A Business with a Purpose



At BT, we believe we have a purpose to use the power of communications to make a better world. We're proud of the sustainable way in which we operate our business and the positive impact we have on our customers, our employees and the communities in which we operate. The BTYSTE is our single biggest commitment to society as we believe in the value of nurturing young talent and building the skilled workforce of the future. But that's not all we do. Here's a snapshot of just some of the work we've been doing in 2018 to honour our commitment to being a purposeful business...

We support the Irish Cancer Society

On October 18, 2018, over 120 BT employees swapped the day job for the charity shop in our seventh annual BT Shop for Change campaign. In doing so we succeeded in raising over €186,000 for cancer research, support and care for those living with cancer and their families. In addition to this, we also organised Tour de BT, where over 70 BT employees from the UK and Ireland took part in a gruelling three day cycle through Cork and Kerry in September. The Ireland team succeeded in raising over €25,000 for the charity, bringing our total fundraising efforts for the Irish Cancer Society this year to over €210,000.

We're a Healthy Place to Work®

In October 2018, BT Ireland was officially certified as a Healthy Place to Work®, under the global healthy place to work standard. This prestigious achievement officially recognises that BT Ireland and its employees are leading the way in creating a healthy, high performing environment for its employees. A Healthy Place to Work® is one where people understand the purpose of their work and how it aligns with the organisation; are part of a learning environment where they are able to adapt and grow; have connections with others and the organisation that allow them to be at their best; and where people have the energy to sustainably deliver on their and the organisation's objectives.

We're one of Ireland's most sustainable businesses

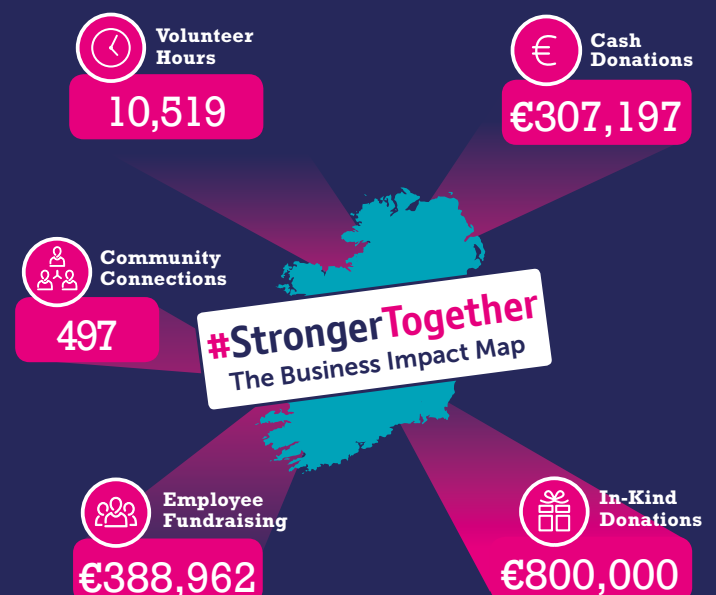
In November 2018, BT was awarded the Business Working Responsibly Mark, the only independently audited standard for CSR and Sustainability in Ireland. Based on ISO 26000, the Mark assesses best-in-class corporate social responsibility and sustainability and looked at BT's impact on areas such as employee engagement, environmental practices and engagement with local communities.

Our community work shines through

In March 2018 BT Ireland was recognised as one of the top 5 companies in Ireland for employee fundraising and volunteering. The BT Community Impact Map, in association with Business in the Community, revealed that BT people contributed more than 10,000 hours volunteering in the previous year and raised over €675,000 for local charities and communities.

We support Employment for Migrant Communities (EPIC)

BT is a proud supporter of Business in the Community's EPIC programme, which supports individuals from other countries to find employment in Ireland. Since we began supporting the programme, BT has provided IT training for over 1,530 EPIC participants and was officially recognised by Business in the Community at the 10 year celebration of EPIC in December 2018.





BT in Ireland

BT is one of the world's leading providers of communications services and solutions, serving customers in 180 countries. Every day, we touch the lives of thousands of people on the island of Ireland, helping them communicate, collaborate, and be entertained and informed.

Science and technology are at the heart of our business

Our mission is to use technology to transform the way businesses operate in today's digitally connected society. With more than 14,000 scientists and technologists working for BT around the world and more than €2.8 billion invested in research and development in the last five years, we can confidently say that we are at the forefront of communication innovation today. That's why we're proud to have organised the BT Young Scientist & Technology Exhibition for the last 19 years, playing a pivotal role in helping to nurture young talent and entrepreneurship in Ireland.

BT in Ireland

BT Ireland is the trusted provider to some of the world's biggest multi-national corporations and indigenous exporters. Our job is to help them solve and manage their complex communication needs using our global network. Every day, we process millions of transactions through our state-of-the-art data centres, develop agile contact centres, pre-empt and solve emerging cyber threats, build networks for other communications companies and more. We also serve major public sector organisations, operating the 999/112 emergency call answering service on behalf of the Irish state.

Sustainability in BT

Our purpose is to use the power of communications to make a better world, by connecting people and society, protecting the environment, maintaining a healthy, progressive workplace and by using our skills and resources to benefit good causes throughout our communities.

Last year, BT Ireland employees spent over 10,500 hours volunteering across the island of Ireland. Our annual BT Shop for Change campaign has raised over €610,000 for the Irish Cancer Society in the last six years. In November 2018, BT Ireland was awarded the Business Working Responsibly Mark, the official standard of excellence for sustainability and corporate social responsibility. We have also been recognised as one of Ireland's Healthiest Places to Work.

We are committed to supporting the local communities in which we live and work through education, digital inclusion, charity fundraising and volunteering.

Northern Ireland

BT is one of the largest private sector employers in the province. We are leading the way in delivering exciting new services to our customers – everything from TV to high speed fibre broadband to IT services for some of the largest organisations in the market.

BT Sport

In 2013 we launched our very own TV sports channels, covering soccer, rugby, UFC, motorsports and more. Since launching, the broadcaster has gone from strength to strength winning exclusive rights to top sporting fixtures such as the Champions League and Europa League, and has just announced that it is to become the home of the European Rugby Champions Cup and the European Rugby Challenge Cup in the UK and Ireland. Irish rugby legend Brian O'Driscoll and former Manchester United footballer Rio Ferdinand are just two of the many legendary sporting figures now presenting for the channels.

Find out more at: btireland.com and btyoungscientist.com

BT, Grand Canal Plaza, Upper Grand Canal Street, Dublin 4, Ireland. Tel: 1800 924 362 Email: youngscientist@bt.com
BT, Riverside Tower, 5 Lanyon Place, Belfast BT1 3BT, Northern Ireland. Tel: 0800 917 1297 Email: youngscientist@bt.com



Be There