BT | **YS** BT YOUNG SCIENTIST & TECHNOLOGY Exhibition

EXHIBITION GUIDE

TEACHER AREA ←

EXHIBITION HALL

STUDENT PROJECTS

ON STAGE

THE PRIMARY SCIENCE FAIR →

2021

#BeyondLimits

BT YOUNG SCIENTIST & TECHNOLOGY Exhibition

Contents

Portal

The 57th BT Young Scientist & Technology Exhibition has been transformed into a fully virtual science exhibition

Check it out at
portal.btyoungscientist.com

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#**BTYSTE**   #**BeyondLimits**

A message from Shay Walsh

We are hugely proud to welcome you all to the 57th annual BT Young Scientist and Technology Exhibition.

Of course this is year like no other for us as science and technology collide and we move to a virtual space for the first time in our prestigious history. In 2021, we are bringing our event to a global stage as we broadcast live across the world over the coming days.

In spite of a challenging year for students and schools, BT Ireland and the BTYSTE judges are hugely impressed by the quality and quantity of this year's projects. The students have centred their focus on solving the issues that we face today and in the near future. They look to find solutions around the global pandemic, climate change and mental health and to bring about real transformation and impact.

It is encouraging to see that students are continuing to push beyond limits and produce innovative solutions and ideas to everyday problems they encounter. Congratulations to all the students, teachers and parents who have put so much time, effort and resources into the projects. When we see the volumes and the substance of these projects, we know the future is in safe hands.

We hope you'll join us for what promises to be a festival of science and technology as we meet the finalists, marvel at spectacular science shows and learn about the world around us.

Shay Walsh
Managing Director, BT Ireland

BT Ireland – Proud organiser of the BT Young Scientist & Technology Exhibition

Exhibition partners

The **BT Young Scientist & Technology Exhibition 2021** is proudly sponsored and supported by;

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UCC University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

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Awards

Main awards

BT Young Scientist & Technologist(s) of the Year 2021

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 of the Year is awarded to a Group, a Best Individual Award will also be made.

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:

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.

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.

The prizes are:

1st prize
€300/£270
for both Individual and Group projects

2nd prize
€225/£202
for both Individual and Group projects

3rd prize
€150 / £135
for both Individual and Group projects

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 Partner awards

Student awards

Analog Devices Student Award
Analog will present an award in the Technology 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.
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
An award will be presented in the Chemical, Physical and Mathematical category to the best placed project, either group or individual, except where the project has been selected as the BT Young Scientist & Technologist(s) of the year.

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

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 a bursary of €2,000 and an Analog Trophy.

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.

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, a €1,000 award will be made to an individual who has made a remarkable and long standing contribution to the BT Young Scientist and Technology Exhibition. This is chosen by the Co-Founder Dr Tony Scott.

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 the 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.

Judges

Biological & Ecological Sciences

Dr Fidelma Butler
Prof. Geraldine Butler
Dr Stephen Butler
Prof. Ann Cullinane
Dr John Devaney
Prof. Michael Doherty
Prof. Evelyn Doyle
Prof. Helen French

Marie Guidon
Dr Colin Kelleher
Prof. Mary Kelly-Quinn★ 1976
Dr Eoin Lettice
Prof. Fionnuala McAuliffe
Prof. Paul McCabe
Prof. Grace McCormack
Prof. Jennifer McElwain

Dr John Monahan★ 1965
Prof. Niall Moyna
Dr Kathy O Boyle
Dr Tadhg O Croinin
Prof. John O'Halloran
Dr Richard O'Hanlon
Prof. Donal O'Shea
Dr Fiona Wilson

Social & Behavioural Sciences

Siobhan Aherne
Prof. Joe Barry
Dr Marian Boland
Dr Barry Brunt
Annette Cahalane
Dr Catherine Comiskey
Dr Tara Cusack
Dr Jean Cushen
Prof. Catherine Darker
Esther Doyle

Conor Faughnan
Prof. Yseult Freeney
Dr Ciara Greene
Dr Jones Irwin
Dr Roisin Lyons
Eoin MacCuirc
Dr Tadgh MacIntyre
Dr Maeve Martin
Prof. Des McCafferty
Michelle McCarthy

Lynda McSweeney
Dr Elizabeth Nixon
Des O'Mahony
Brendan O'Sullivan
Prof. Ian Robertson
Aidan Ryan
David Silke
Dr Sinead Smyth
Prof. Anthony Staines

Chemical, Physical & Mathematical Sciences

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

Dr Graeme Horley
Prof. Peter Lynch
Prof. Ronan McNulty ★ 1985
Prof. Maria Meehan
Dr Martina Nolan-Jones
Dr Fergal O'Reilly

Dr Rachel Quinlan
Dr Tony Scott
Prof. Emma Sokell

Technology

Julie Byrne
Prof. Bernie Capraro
Prof. Sarah Jane Delany
Prof. John Dunnion
Ray Goggins
Leonard Hobbs

Barry Kennedy
Noel King
Dr Claire Magee
Dr Helen McBreen
Aaron McCormack
Diarmuid O'Brien

Brian Omara
Ann O'Sullivan
Dr Mary Shire
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

2021 Project Quick Search

Project category

Biological and Ecological Sciences	Social and Behavioural Sciences	Chemical, Physical and Mathematical Sciences	Technology
1100 - 1605	2100 - 2609	3100 - 3607	4100 - 4609

School name/County

Carlow

Presentation College	2567

Cavan

Bailieborough Community School	1219, 1545, 3516
Colaiste Dun an Ri	1403, 1410, 1533, 2406 2407, 2427, 2531
St Bricin's Vocational School	1529, 1602, 3513

Clare

Ennistymon Vocational School	4508
Mary Immaculate Secondary School Lisdoonvarna	1103, 1109, 1110 1113, 3107
St Joseph's Community College	1605
St. Joseph's Secondary School	1223, 1412, 1413 3406, 3528

Cork

Bandon Grammar School	2579, 3409, 4308
Beara Community School	4210, 4506, 4507, 4519 4537
Bishopstown Community School	1218, 2222
Boherbue Comprehensive School	2414, 2537
Christian Brothers Secondary School Cork	2246
Clonakilty Community College	1515, 2522, 4529
Colaiste An Phiarsaigh	1100, 1400, 1502, 1503 2201, 2403, 3400, 3502
Coláiste An Spioraid Naoimh	3530
Coláiste Choilm	1212, 1517, 1523, 2217, 2404 2510, 2528, 2529, 2544, 2600, 4203
Coláiste Cholmáin	2109, 4531
Coláiste Chríost Rí	1416, 3529
Coláiste Muire Crosshaven	1202, 1227, 1576 2101, 2221, 3102

Coláiste Na Toirbhirte	1538, 1574, 2509
Colaiste Treasa	1203, 1208, 2105, 2200, 2502, 2603
De La Salle College Cork	2208, 4505
Douglas Community School	4406, 4411
Gaelcholáiste Charraig Uí Leighin	1407, 1501, 3101 4102, 4501
Kinsale Community School	2111, 3103, 4113
Loreto Secondary School Fermoy	1107, 4109
Maria Immaculata Community College	1566
Midleton College	1112, 2214, 2215, 2216, 2227, 4222
Millstreet Community School	1526, 1532, 1536 2503, 2513
Mount St Michael	1567
Patrician Academy	2423, 2424
Regina Mundi College	1561
Scoil Mhuire gan Smál Blarney	2409
Scoil Mhuire Kanturk	1556, 2563, 2578
Skibbereen Community School	2589
St Aloysius College Carrigtwohill	1562
St Aloysius School	2240, 3207, 3301, 3524
St Mary's High School	1551
St Mary's Secondary School	1505, 1506, 1509, 2202 2203, 2207, 2504, 2505, 2506 2514, 2515, 2553, 2588, 3504
St. Brogan's College	1201, 1406, 2104, 2400, 2401 2402, 2405, 2408, 4402

Donegal

Abbey Vocational School	1519, 1531, 4103
Choláiste Cholmcille	2412
Coláiste Ailigh	1306, 2114, 2309, 2420 2585, 3309, 3310
Loreto Community School	1414, 1603, 3408, 4608

School name/County

Pobalscoil Ghaoth Dobhair	3532
Scoil Mhuire	1600
St Eunan's College	4205
The Royal and Prior School	4532

Down

South Eastern Regional College - Bangor Campus	1307

Dublin

Ardgillan Community College	1229, 1550, 1604, 2572
Belmayne Educate Together Secondary School	2418, 4407
Clonturk Community College - Educate together	2419
Coláiste Eoin	2209
Coláiste Iosagáin	2573
Coláiste Phádraig	3402, 4413
Colaiste Pobail Setanta	2243
Dominican College	2525
Gaelcholáiste an Phiarsaigh	2410
Gonzaga College	1548, 2218, 2584, 3104, 4518
Grange Community College	2213
Home School	1114, 2604
Kingswood Community College	4215
Kishoge Community College	4538
Le Chéile Secondary School	1225, 2236, 3606
Loreto College	2251, 2532
Loreto High School	4514
Loreto Secondary School, Balbriggan	1565, 2249 2430, 2570, 2577, 2580, 2582
Mount Anville Secondary School	3601, 4533
Muckross Park College	2112
Nord Anglia International School	3520, 4112, 4502
Our Ladys School	3403, 3514, 3526
Pobalscoil Neasain	2108
Rockbrook Park School	3521
Rosemont School	2220
Sandford Park School Ltd	3108
Sandymount Park Educate Together	1554, 4111

Secondary School	
Scoil Chaitriona	2306
St Andrew's College	1106, 1214, 1304, 1305, 1543, 3105
	3205, 3303, 3305, 4108, 4211
St Conleth's College	2106
St Joseph Of Cluny	3106
St Joseph's College	1507, 2511
St Joseph's Secondary School, Rush	1232, 1568 1569, 1570, 1571, 1572, 4534, 4535, 4609
St Marys College - C.S.Sp.	4414
St Mary's Secondary School	1415, 2311, 2581, 4207
St Michaels College	4208
St. Aidan's C.B.S.	4209
St. Kilian's German School	4104
Stratford College	4217
Synge Street CBS	3602
Tallaght Community School	2411
Templeogue College	1300, 2100, 4309
The Institute Of Education - Dublin	2304

Galway

Coláiste Bhaile Chláir	2546, 3515
Coláiste Mhuire	2561
Coláiste na Coiribe	3607
Holy Rosary College	3531
Jesus & Mary Secondary School	2606
Presentation College Headford	4107, 4214
St Brigids College	1216, 2226, 2547
St. Mary's College	2571, 4223

Kerry

C.B.S. Secondary School	2110, 2229, 4408
Gaelcholáiste Chiarraí	1102
Killorglin Community College	1207
Mercy Secondary School	2102, 2252, 4520, 4602
Pobalscoil Inbhear Scéine	2204, 2205, 3300, 3405
Scoil Phobail Sliabh Luachra	4605
St. Brigid's Secondary School	2551
Tarbert Comprehensive School	1528, 2536, 4405

2021 Project Quick Search

School name/County

Kildare

Coláiste Lorcáin	2248, 2425
Coláiste Naomh Mhuire	1512, 1530, 2107, 2533
Cross And Passion College	4220
Kildare Town Community School	1108
Leixlip Community School	1226, 3209
Naas Community College	4607
Patrician Secondary School	4600
Scoil Mhuire Community School	3201, 3203

Kilkenny

Castlecomer Community School	1520, 1540, 1541 1606, 2524, 2545, 2601
Coláiste Pobal Osraí	1209, 1510, 2518, 2535
Loreto Secondary School	1522, 1547, 2564 2574, 3506, 4530
Meánscoil na mBráithre Criostaí	1221, 1555, 3308
St Kieran's College	1525, 1575, 2539, 3206, 3527

Laois

Heywood Community School	2225, 2302, 2548
Portlaoise College	1511, 2512, 2516, 2560

Leitrim

Carrick-On-Shannon Community School	1233, 2527, 2534, 2591, 4509, 4515, 4516
Mohill Community College	1217
St. Clare's Comprehensive School	2422

Limerick

Ardscoil Ris	2542
Castletroy College	2237, 2242
Coláiste Chiaráin	3401
Coláiste Iósaef	4528
Colaiste Nano Nagle	1542, 2230
Desmond College	1200, 3100, 3500, 4100, 4101 4200, 4400, 4401, 4500, 4601
Gaelcholáiste Luimnigh	1402, 2417, 4225, 4303
Glenstal Abbey School	4105, 4219
Hazelwood College	1220
John The Baptist Community School	4202

Laurel Hill Secondary School FCJ	1215, 2232, 2241 2549, 2550, 4206, 4512
Mungret Community College	1104, 2103, 2206
Salesian Secondary College, Pallaskenry	4305

Londonderry

Coleraine Grammar	4218
St Mary's College	1302, 3302, 3304, 3603

Longford

Ardscoil Phadraig	2565, 2566
Lanesboro Community College	1301, 2247, 4110

Louth

Bush Post Primary School	1206, 1504
De La Salle College	4606
Our Ladys College	3306
St Vincent's Secondary School	1563, 2562, 3522, 3523

Mayo

Ballinrobe Community School	4521
Jesus & Mary Secondary School	4306
Mount St Michael	4201, 4410, 4524
St Joseph's Secondary School	2517
St. Mary's Secondary School	4224

Meath

Dunshaughlin Community College	2586
Enfield Community College	1105, 1408
Eureka Secondary School	1539
Scoil Mhuire	2500
St Patrick's Classical School	4216
St. Joseph's Secondary School	1500, 1601, 3200
Youthreach Navan	2590, 2607, 2608

Monaghan

Castleblayney College	2415
Our Lady's Secondary School	3505
St. Louis Secondary School	1537, 1560, 2543, 2568

Offaly

St. Brendan's Community School	2212

School name/County

Roscommon

C.B.S. Roscommon	1544, 1549
Castlerea Community School	2583
Scoil Mhuire gan Smál	1524, 1573, 2228 2552, 3508
Scoil Mhuire Strokestown	2554, 3407, 3605, 4226

Sligo

Jesus & Mary Secondary School	3307
Mercy College	1564
Sligo Grammar School	2530, 4526, 4527
Summerhill College	2250, 2428
Ursuline College	2305, 2520, 3604, 4504 4513, 4604

Tipperary

Borrisokane Community College	2526
C.B.S. Thurles	1514, 4536
Cashel Community School	2602
Cistercian College	3507, 3517, 3518
Coláiste Mhuire Co-Ed	2211, 4603
Loreto Secondary School	1401, 1405, 1516, 1557 2416, 2609, 3503, 4304
Patrician Presentation	1101
Presentation Secondary School	3519, 4300
Rockwell College	2233
St Joseph's College	4510
St. Anne's Secondary School	1527, 1534, 1535, 2540 3509, 3510, 3511, 3512
St. Joseph's C.B.S	2301
The Abbey School	1211, 2223, 2523

Tyrone

St Ciaran's High School	2307
St Joseph's GS	4106
St Patrick's College	1222, 4412

Waterford

Ard Scoil Na Mara	4301
Blackwater Community School	2219, 4212
Our Lady Of Mercy Secondary School	3208
St Angela's	2519

Westmeath

Athlone Community College	1553, 1559, 2231, 2234 2235, 2538, 2555, 2556, 2557 2558, 2559, 2569, 2576, 2587, 4213, 4511
Castlepollard Community College	4302
Colaiste Mhuire	4307, 4403
Marist College	1204, 3202, 3501
Moate Community School	1404, 1409, 1411, 1513 1518, 1521, 2413, 3404
Our Lady's Bower	1111, 1210, 4409
St Joseph's Secondary School	1558

Wexford

Vocational College Bunclody	2300

Wicklow

Dominican College	2429
Presentation College	4522
SEK Dublin International School	1224, 4204
St Gerard's	4525
St Kevin's Community College	3204
St Marys College	1230, 1508, 2507, 2508
Woodbrook College	2575

PROJECT QUICK SEARCH IS ALSO AVAILABLE ON OUR MOBILE APP AND OUR 2021 VIRTUAL PORTAL...

#BTYSTE

Biological & Ecological Sciences

JUNIOR INDIVIDUAL

1100
Title: Leibhéil Bhithéagsúlachta i Saghasanna Difiriúla Coille
Overview: Tomhas a dhéanamh ar leibhéil bhithéagsúlachta i saghasanna coille difriúla ag baint úsáide as an líon speiceas mar uirlis thomhais.
School: Colaiste An Phiarsaigh
County: Cork
Teacher: Mr Caoimhín Ó Buachalla
Student(s): Amhlaoibh Ó Síocháin Ó Beoláin

1101
Title: Can using sheep's wool combat Climate Change?
Overview: Investigating if sheep's wool can be used as an alternative to plastic packing thus reducing the environmental impact of waste and reviving the wool industry.
School: Patrician Presentation
County: Tipperary
Teacher: Ms Margaret O'Neill
Student(s): John David O'Donnell

1102
Title: Nature takes on nature: Eradicating Japanese knotweed
Overview: To investigate if the walnut tree is effective in eradicating Japanese Knotweed (fallopia japonica). The American walnut tree has poisonous roots that kill sensitive plants.
School: Gaelcholáiste Chiarraí
County: Kerry
Teacher: Mrs Tríona Uí Mhaolchatha
Student(s): Grace Ni Ifearnáin

1103
Title: Does the availability of food affect the movement of periwinkles (Littorina littorea)
Overview: I am looking at whether the availability of food affects the movement of periwinkles (Littorina littorea)on a number of shores in north Clare
School: Mary Immaculate Secondary School Lisdoonvarna
County: Clare
Teacher: Mr John Sims
Student(s): Fionn Rush

1104
Title: To investigate the nutrients of fruits and vegetables over a period of time.
Overview: My project aims to chart the decreasing nutrients in different types of fruits and vegetables over a period of time.
School: Mungret Community College
County: Limerick
Teacher: Mr John McCarthy
Student(s): Eoghan Hinchy

1105
Title: A comparative study on how plant height is impacted by other plants growing nearby.
Overview: I want to complete this experiment to investigate whether a plants growth is affected by other plants in the same area.
School: Enfield Community College
County: Meath
Teacher: Ms. Rebecca Kenneally
Student(s): Jasmine Murphy

1106
Title: How pollution in rivers affects river wildlife
Overview: My project is a study of how pollution in rivers effects the river wildlife's population and health
School: St Andrew's College
County: Dublin
Teacher: Ms Emma Buckley
Student(s): Ellie Walsh

1107
Title: An Investigation Into The Effects Of Masks On Performance In Sports
Overview: Masks help prevent the spread of Covid-19 but are not currently worn in sport. I am investigating the effects masks have on performance in sport.
School: Loreto Secondary School Fermoy
County: Cork
Teacher: Mrs Aine Bushell
Student(s): Leah Nolan

1108
Title: Ash Dieback and it's Impact on Irish Biodiversity
Overview: Ash Dieback, caused by the ascomycete, Hymenoscyphus fraxinus, is assessed in relation to it's impact to Irish Biodiversity. Mitigation Measures are Proposed to limit impact.
School: Kildare Town Community School
County: Kildare
Teacher: Ms Larissa O'Neill
Student(s): Joseph Moran

1109
Title: Is visitor footfall affecting lichen growth on limestone pavement in the Burren?
Overview: I am assessing the amount of wear/degradation of lichens on limestone pavement surfaces in the Burren due visitor footfall.
School: Mary Immaculate Secondary School Lisdoonvarna
County: Clare
Teacher: Mr John Sims
Student(s): Anna Mae O'Driscoll

1110
Title: House searching by hermit crabs
Overview: I am looking to see if the choice of shell by hermit crabs is related to shell size and their size and shell availability.
School: Mary Immaculate Secondary School Lisdoonvarna
County: Clare
Teacher: Mr John Sims
Student(s): Ciara McDonnell

1111
Title: Blooming Good Algae
Overview: Could algae be the answer to removing nitrates and phosphates from agricultural and domestic waste-water, while at the same time producing an effective fertilizer?
School: Our Lady's Bower
County: Westmeath
Teacher: Mrs Ellen Maguire
Student(s): Michelle Hughes

1112

Title: Organic Bioplastic bottles an alternative to single use plastic bottles
Overview: My project is to create an organic biodegradable plastic, which could be used as an alternative to single use plastic bottles.
School: Midleton College
County: Cork
Teacher: Ms. Niamh O'Mahony
Student(s): Rhys Morgan

1113

Title: Does the level of nutrients in seawater affect the abundance of Ulva lactuca
Overview: I am looking to see if the level of nutrients in seawater affects the abundance of Ulva lactuca in coastal areas of the Burren
School: Mary Immaculate Secondary School Lisdoonvarna
County: Clare
Teacher: Mr John Sims
Student(s): Ella Mooney

1114

Title: Optimisation of wild yeast production for bread
Overview: Study of the optimisation of wild yeast cultivation for bread using standard domestic equipment that is readily available in peoples' homes.
School: Home School
County: Dublin
Teacher: Ms Orna Collins
Student(s): Fionnán Ó Baoighill

INTERMEDIATE INDIVIDUAL

1200

Title: Biodegradable Face Mask to Reduce Pollution & Protect the Environment
Overview: To reduce pollution & prevent the spread of viruses by making a breathable, biodegradable face-mask that will not damage our environment using locally sourced materials.
School: Desmond College
County: Limerick
Teacher: Mr Donal Enright
Student(s): Lucy Flaherty

1201

Title: Hemp for a Sustainable Future?
Overview: To investigate the social, economic and environmental benefits and drawbacks of growing hemp and to determine if it can promote sustainable farming in Ireland.
School: St. Brogan's College
County: Cork
Teacher: Ms Laura O'Regan
Student(s): Cian Walsh

1202

Title: Bake it or Fake it
Overview: I will investigate the effects of sunless tanning products on our health and skin, as well as researching why we do it.
School: Coláiste Muire Crosshaven
County: Cork
Teacher: Ms Bridget Lehane
Student(s): Alexandra Phelan Collins

1203

Title: "Investigating possible vegetable oil soil toxicity using nematodes as environmental bioindicators"
Overview: Investigating the effects of vegetable oil on the behaviour of entomopathogenic nematodes (EPN) in an artificial ecosystem. Specifically, EPNs' ability to infect insects and reproduce.
School: Colaiste Treasa
County: Cork
Teacher: Ms Joanne Corkery
Student(s): Jack Quirke

1204

Title: Are there benefits to training in bare feet?
Overview: my project aims to cover the advantages of training in bare feet, specifically in rugby.
School: Marist College
County: Westmeath
Teacher: Ms Martina Carey
Student(s): Seán Doyle

1205

Title: How untested water from private wells can put 1 million people at risk of E. coli poisoning.
Overview: Our project aims to inform people about the health risk of not testing drinking water from private wells and taking samples of drinking water from different wells and testing them for E. coli poisoning.
School: Coláiste Na Toirbhirte
County: Cork
Teacher: Ms Emily Aherne
Student(s): Emily Corcoran

1206

Title: Experimental Cancer Trials- Do the benefits outweigh the potential harm they could be causing?
Overview: This project is about expertimental trials. Types of trials, what they are and everything about them. This project was made to inform people about trials.
School: Bush Post Primary School
County: Louth
Teacher: Mr Gary Galvin
Student(s): Julianna Jakubas

1207

Title: is the increase in temperature and humidity over the summer months effecting the hatch rate of small poultry farms
Overview: to investigate if the increase in temperature and humidity over the summer months effecting the hatch rate of small poultry farms in rural Ireland
School: Killorglin Community College
County: Kerry
Teacher: Ms Ilona Ni Dhubhda
Student(s): Lily-Sue Eyers

1208

Title: An investigation into the ability of different pasture swards to sequester carbon
Overview: To investigate the ability of different pasture sward types to generate biomass which will sequester carbon and ultimately combat global warming.
School: Colaiste Treasa

County: Cork
Teacher: Ms Bríd-Anne O'Donoghue
Student(s): Sarah Humphreys

1209
Title: eifeacht miocrorgánach ar fás plandaí
Overview: le haghaidh mo turgnamh, taim ag deanamh taighde ar na miocrorgánach i leasachán nadurtha, agus an eifeacht atá acu ar fás plandaí.
School: Coláiste Pobal Osraí
County: Kilkenny
Teacher: Ms Julia Coffey
Student(s): Maggie Delaney

1210
Title: The Last Straw! The impact of microplastics on our inland lakes.
Overview: This project highlights the increasing global threat of micro plastics. It involves a micro-plastic evaluation and characterization of micro plastics found in Irelands inland lakes.
School: Our Lady's Bower
County: Westmeath
Teacher: Mrs Ellen Maguire
Student(s): Hannah Duffy

1211
Title: The effects on lower joints from playing soccer on an astro turf surface
Overview: My project aims to see what effects if any, playing sport on an astro turf surface has on the lower joints (knee and ankle)
School: The Abbey School
County: Tipperary
Teacher: Ms. Eavan Ryan
Student(s): Darragh O'Brien

1212
Title: Does bacteria last as long on metal?
Overview: I want to find out about how bacteria transfers from surface to surface. I want to figure out which surfaces can contaminate food the most.
School: Coláiste Choilm
County: Cork
Teacher: Mr Paudie Scanlon
Student(s): Orla Delaney

1213
Title: Sustainable Food Production
Overview: The benefits of using aquaponics to grow plants that cannot be grown in Ireland in a more sustainable way
School: St Kieran's College
County: Kilkenny
Teacher: Mr David Hennessy
Student(s): Pauric Kirwan

1214
Title: Goats milk vs Cows milk: why can some people consume goats milk but not cows milk?
Overview: I am going to compare the compositional differences of both milks to analyse why goats milk agrees with some people when cows milk doesn't.
School: St Andrew's College
County: Dublin

Teacher: Ms Emma Buckley
Student(s): Zara Griffin

1215
Title: Comparing synthetic wound dressings to natural honey-based dressings
Overview: My project aims to compare the effectiveness of natural medication for wounds when compared to synthetic medication, and to highlight associated popular perceptions of these.
School: Laurel Hill Secondary School FCJ
County: Limerick
Teacher: Dr Mary Frawley
Student(s): Emma McAndrew

1216
Title: Investigating the effectiveness of wearing a face mask and social distancing during a pandemic
Overview: I this experiment is going to prove why we need to wear face masks an social distance
School: St Brigids Vocational School
County: Galway
Teacher: Ms Sarah Clarke
Student(s): Cathal Duane

1217
Title: The environmental impact of reusing grey water for agricultural purposes and the effect it has on plant growth
Overview: My project aims to show if grey water can be more beneficial for plant growth than mains water and how it will affect the environment.
School: Mohill Community College
County: Leitrim
Teacher: Ms Eileen Nertney
Student(s): Caolán Ó'Riordáin

1218
Title: The yearly cost of owning a pet dog
Overview: This project aims to find a yearly breakdown of the price of owning a pet dog
School: Bishopstown Community School
County: Cork
Teacher: Ms Michelle O Brien
Student(s): Rian O Luasa

1219
Title: An investigation to determine if porous fruit absorbs pesticides and chemicals
Overview: Do pesticides and chemicals end up in our fruit? Does the age and origin of the fruit affect the absorptivity.
School: Bailieborough Community School
County: Cavan
Teacher: Ms. Natalie Kinghan
Student(s): Conor Doherty

1220
Title: An investigation into the use of oat milk as an alternative in baby formula products
Overview: This project highlights the environmental and health benefits of using oat milk in baby formula products as opposed to cow's milk.
School: Hazelwood College

County: Limerick
Teacher: Ms Michelle Herbert
Student(s): Hannah Cremin

1221
Title: Calendar farming:Does it even work?
Overview: My project aims on researching if farmers should be able to spread slurry during the closed period.This is currently illegal under the Nitrates Directive (2018).
School: Meánscoil na mBráithre Criostaí
County: Kilkenny
Teacher: Mr David O' Heney
Student(s): Tom Gorey

1222
Title: Does reaction time slow with age? If so, when?
Overview: The aim of my study is to investigate whether reaction time slows with age. If so, at what age does it start to decrease?
School: St Patrick's College
County: Tyrone
Teacher: Miss Sinéad O'Neill
Student(s): Jenica Aparicio

1223
Title: Nanosilver:What does it do to our Marine Life?
Overview: I decided to investigate what chemicals we put in our daily products and if the left overs of it will effect our marine life.
School: St. Joseph's Secondary School
County: Clare
Teacher: Ms Mairead O Brien
Student(s): Ciara Sheppard

1224
Title: COMPARE THE INHIBITION POTENCY OF VARIOUS PLANT BASED ANTI-MICROBIAL AGENTS
Overview: My project investigates the efficacy of different plant based anti-microbial agents. These agents are biodegradable thereby reducing water and land pollution.
School: SEK Dublin International School
County: Wicklow
Teacher: Mr Emilio Garcia
Student(s): Adam Pandey

1225
Title: Do video games improve performance in sports?
Overview: I will be investigating whether or not video games have an effect on athletes' reaction times.
School: Le Chéile Secondary School
County: Dublin
Teacher: Mr Sean Creedon
Student(s): Sophie McQuillan Clarke

1226
Title: A statistical investigation into the environmental impact of Covid-19.
Overview: In this project, I intend to investigate and study the effects Covid-19 has had on the environment and how to alleviate the stress it creates.
School: Leixlip Community School
County: Kildare
Teacher: Ms Michelle O'Keeffe

Student(s): Anna Evans

1227
Title: Beach closure exposure
Overview: I research why it is unsafe for myself and locals to swim in Fountainstown's water during advisory notices and why it links to weather forecast.
School: Coláiste Muire Crosshaven
County: Cork
Teacher: Ms Bridget Lehane
Student(s): Ava Long

1229
Title: Acoustic Ecology-Listening To Our World Change
Overview: A look into Acoustic Ecology, a field of science that may prove essential to modern ecology and conservation efforts.
School: Ardgillan Community College
County: Dublin
Teacher: Ms Laura Sheahan
Student(s): Cillian McCormack

1230
Title: Nutrient recycling efficiency using bio-based organic fertilisers.
Overview: This bio-based fertiliser trial with Spring wheat tests fertilisers, in comparison to chemical fertilisers, measuring crop yield and soil health benefits, demonstrating nutrient recycling efficiency.
School: St Marys College
County: Wicklow
Teacher: Ms Joanne English
Student(s): Elizabeth Bourke

1231
Title: Lobsteristic
Overview: Lobster frequency data in relation to length
School: Coláiste Muire Crosshaven
County: Cork
Teacher: Ms Bridget Lehane
Student(s): Rhea Itty

1232
Title: No Rush!
Overview: This is a research-based project assessing the impact of coastal erosion on my hometown of Rush, Co. Dublin.
School: St Joseph's Secondary School, Rush
County: Dublin
Teacher: Mr Chris O'Connell
Student(s): Luke Maher

SENIOR INDIVIDUAL

1300
Title: Changing Climate, Changing Genes: Epigenetics to help crops deal with climate change.
Overview: Investigation of ways plants adapt through epigenetics to abiotic stresses, and can these responses be triggered by human intervention.
School: Templeogue College
County: Dublin
Teacher: Ms Linda Ward
Student(s): Luke Fox-Whelan

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1301
Title: Rising from the ashes: A survey of plants in my local bogs which have been identified as having medicinal properties
Overview: A survey of selected bogs in my local area to identify the presence and quantity of plants which have been identified as having medicinal properties.
School: Lanesboro Community College
County: Longford
Teacher: Ms Mary O'Brien
Student(s): Orla Lyons

1302
Title: A comparative investigation of the efficacy of proprietary and home made hand sanitisers
Overview: In this time of COVID-19 and the crucial need to sanitise hands, I am investigating a range of proprietary and homemade sanitisers for their efficacy.
School: St Mary's College
County: Londonderry
Teacher: Mrs Ann Blanking
Student(s): Caitlin Mc Fadden

1303
Title: Effects of Intensive farming on soil health.
Overview: To test the soil health of an intensive farmed land to an organic farmed land. Compare and measure the amount of organic matter and worms.
School: Castlecomer Community School
County: Kilkenny
Teacher: Ms Nora Henderson
Student(s): Muireann Ryan

1304
Title: How does the land use adjacent to each stream sampling site affect macroinvertebrate biodiversity?
Overview: The project aim is to calculate stream macroinvertabrite biodiversity indices to indicate the effect of type of adjacent land use on relative stream health.
School: St Andrew's College
County: Dublin
Teacher: Ms Emma Buckley
Student(s): Emilie Higgins

1305
Title: The Effects of Temperature on a Hydrogel Based Drug-Delivery System
Overview: This project will determine how temperature affects the efficiency of a hydrogel based drug-delivery system by measuring the release of a drug substitute using spectrophotometry.
School: St Andrew's College
County: Dublin
Teacher: Ms Emma Buckley
Student(s): Anna Smyth

1306
Title: Cén Mais Feamainn a Bheadh de Dhith Chun Mais Áirithe Plaisteach a Dhéanamh agus Cén feamainn áitiúil is fearr le húsáid?
Overview: Ag fiafradh an bhfuil sé inbhuanaithe chun feamainn a úsáid seachas plaisteach agus an mais feamainn a bheadh de dhith chun mais plaisteach a ionadú.
School: Coláiste Ailigh

County: Donegal
Teacher: Mr Shane Ó Breacáin
Student(s): Muireann Ní Mhathúna

1307
Title: Investigating the link between Cardiovascular Disease and an individuals' weight.
Overview: My project is set out to conclude if there is a significant difference between weight of individuals with Cardiovascular Disease and without Cardiovascular Disease.
School: South Eastern Regional College - Bangor Campus
County: Down
Teacher: Mr Jonathan Cash
Student(s): Sara Hamilton

JUNIOR GROUP

1400
Title: How Cerebal Palsy Affects Young Children
Overview: In this project we wanted to learn more about Cerebal Palsy and how it affects young children.
School: Colaiste An Phiarsaigh
County: Cork
Teacher: Mr Caoimhín Ó Buachalla
Student(s): Barra O'Floinn, Donncha O Tuama, Cara Nic Cormaic

1401
Title: maskteria
Overview: We investigate how much bacteria is on a facemask worn at school for one day
School: Loreto Secondary School
County: Tipperary
Teacher: Ms Emma Griffin
Student(s): Amna Anees, Razan Ali, Jessica Pyke

1402
Title: Comparáid idir an méid iarann atá á fáil ag feoilséantóir i gcompairáid le uiliteoir
Overview: Táimid chun tomhais an méid iarann atá i aiste bia feoilséantóir i gcomparáid le uiliteoir.
School: Gaelcholáiste Luimnigh
County: Limerick
Teacher: Dr Pól Ó Drisceoil
Student(s): Kate Hanafin, Aoife NicCraith

1403
Title: 'Maskne. What are your masks keeping out and what are they keeping in?
Overview: We will investigate if hygienic procedures are being followed when wearing masks, along with culturing, quantifying and identifying the bacteria most commonly found on masks.
School: Colaiste Dun an Ri
County: Cavan
Teacher: Ms Linda Kelly
Student(s): Sarah Ginnitty, Laoise Smith

1404
Title: Superfoods and their Effects on Diabetes
Overview: To identify superfoods suitable for use in diabetic diets due to their high vitamin C and fibre content and low Brix values.

School: Moate Community School
County: Westmeath
Teacher: Ms Mairead Cusack
Student(s): Reuben Guinan, Kian Brady

1405
Title: Prevention of hand cramps in students
Overview: Our project aims to investigate the effects hand exercises have on students abilities to write for longer periods of time without developing hand cramps
School: Loreto Secondary School
County: Tipperary
Teacher: Ms Emma Griffin
Student(s): Isabelle Ryan, Áine Phelan, Roisin McGrath

1406
Title: Is there toxins present in our drinking water?
Overview: The aim of our study is to highlight the importance of removing toxins from drinking water.
School: St. Brogan's College
County: Cork
Teacher: Ms Roisin Kingston
Student(s): Michelle Hayes, Leanne Murray

1407
Title: Cad é an difríocht idir sláinte agus folláine madra treoraí in aghaidh madra tí
Overview: Beidheamar ag fáilt amach an bhfuil saol maith ag madra treoraí nó an déanann sé dochar do sláinte an madra
School: Gaelcholáiste Charraig Uí Leighin
County: Cork
Teacher: Mr. Rónán Ó Muirí
Student(s): Liath Mullins, Aoife Ní Aicidín, Oisín Mac Piarais

1408
Title: An investigation into the efficiency of different fabric on facemasks with relation to preventing the spread of cough and sneeze droplets during COVID-19.
Overview: To study the ability of a face mask to prevent spread of sprayed water which we will use as a comparison to nose/cough spray
School: Enfield Community College
County: Meath
Teacher: Ms. Rebecca Kenneally
Student(s): Lily O' Reilly, Yasmin Callaghan, Taylor Quinn

1409
Title: An Investigation on the Impact of Diet on the Prevalence of Laminitis among Connemara Ponies
Overview: To determine the impact of diet on the prevalence of laminitis among Connemara ponies and develop a re-seed mix to reduce its occurence.
School: Moate Community School
County: Westmeath
Teacher: Ms Mairead Cusack
Student(s): Lauren Finan, Shana Brady, Aine Broderick

1410
Title: Are protein bars and snacks worth it?
Overview: Our objective is to find out if protein bars live up to our expectations and if homemade protein bars are more beneficial for our health.

School: Colaiste Dun an Ri
County: Cavan
Teacher: Ms Siobhan Hamill
Student(s): Rebekah Ritchie, Fayth Daly

1411
Title: The Future Is Bright: Turning Organic Waste Into Biofuel
Overview: We are looking to produce a combustible pellet to replace traditional wood burning pellets using organic compost from household waste, ensuring protection of our environment.
School: Moate Community School
County: Westmeath
Teacher: Ms Mairead Cusack
Student(s): Annie Duffy, Leah Hallissy, Ava Hallissy

1412
Title: To Dry or not to Dry
Overview: As we live beside the Atlantic ocean we wish to investigate if dry seaweed or wet seaweed will yield better plant growth.
School: St. Joseph's Secondary School
County: Clare
Teacher: Ms Catherine Clair
Student(s): Eabha Healy, Caityln Fay

1413
Title: Rockpool Quest
Overview: We go to school along the Atlantic ocean. We are going to investigate the species found in the rockpools at Spanish Point and Lahinch.
School: St. Joseph's Secondary School
County: Clare
Teacher: Ms Catherine Clair
Student(s): Lia Molony, Siofra Cullen

1414
Title: A Homemade Air Freshener Using Recycled Paper
Overview: In our project we aim to make a recycled, biodegradable and recyclable air freshener using homemade paper, and research the forestry problems in Ireland
School: Loreto Community School
County: Donegal
Teacher: Mrs Roisin Coyle
Student(s): Loren Connolly, Hannah Gallagher, Áine Connolly

1415
Title: Human reaction to Different types of Music
Overview: We plan to conduct a project that shows how the human heart beats while the person is listening to different types of music.
School: St Mary's Secondary School
County: Dublin
Teacher: Ms Eilish Coleman
Student(s): Erica Chettiar, Anna Binu Anthinattu, Hannah Moroney

1416
Title: Bird Lives Matter
Overview: We plan on looking at the bird population in our local areas and making bird houses to help increase the population.
School: Coláiste Chríost Rí
County: Cork
Teacher: Miss Aoife O Donovan

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Student(s): Diarmuid O' Donovan, Keiron Postrano, Rafidullah Sikder

INTERMEDIATE GROUP

1500
Title: The impact covid 19 has had on the injury rate amoung female GAA players
Overview: We wanted to analyse the injury rate in womens GAA due to covid restrictions, short preseason and the return to play during the summer
School: St. Joseph's Secondary School
County: Meath
Teacher: Ms Fiona Leavy
Student(s): Alannah Brady, Olivia Callan

1501
Title: An féidir Cress a fás ag baint úsáid as deochanna difriúl?
Overview: Táim muid déanamh an tuirgneamh, "An fásfaidh cress níos fearr ag úsaid deocheanna le fizz no deoch gan fizz"
School: Gaelcholáiste Charraig Uí Leighin
County: Cork
Teacher: Miss Marianne Ní Thuama
Student(s): Darragh Collins, Liam Jordan, Seán Mulcahy

1502
Title: Cad é an éifeacht atá ag airgead ar ár sláinte?
Overview: Táimid chun plátaí agar a úsáid chun imscrúdú a dhéanamh ar na miocrorgánaigh ar boinn/nótaí airgid/lámha roimh agus tar éis airgid a lámhsáil.
School: Colaiste An Phiarsaigh
County: Cork
Teacher: Mr Caoimhín Ó Buachalla
Student(s): Abi Ní Thornúill, Aoibhinn Nic Conchoille

1503
Title: Can food affect your heart rate (short term)?
Overview: We found out if different foods affect your heart rate short term right after, 5 minutes after, 15 minutes after and an hour after
School: Colaiste An Phiarsaigh
County: Cork
Teacher: Mr Caoimhín Ó Buachalla
Student(s): Josh Gráinséar, Maitiú Ó Riordáin

1504
Title: smoking vs vaping
Overview: The project is based on an experiment on the effects of smoking and vaping.it is then we compare our results.
School: Bush Post Primary School
County: Louth
Teacher: Ms Emily Kerr
Student(s): Dean Brady, Gavin McArdle, Darragh Hughes

1505
Title: The effects of colour on memory and mood
Overview: For or project we plan to investigate the effects of colour on the brain and how it effects memory and mood
School: St Mary's Secondary School
County: Cork
Teacher: Ms Jennifer Butler

Student(s): Lisa Kingston, Alison Ryan

1506
Title: are compostable and biodegradable ration bags the future of Irish farms?
Overview: we are investigating the different qualities of biodegradable and compostable ration bags in comparison to plastic ration bag and see how long they take to decompose.
School: St Mary's Secondary School
County: Cork
Teacher: Ms Jennifer Butler
Student(s): Abigail Kelleher, Sinead Creedon

1507
Title: A comparative analysis of the effectiveness of cleaning products based on their recommended retail price (RRP).
Overview: we wish to investigate whether there is any difference in the ability to kill bacteria and fungi between cheap, mid ranged and expensive antibacterial disinfectants.
School: St Joseph's College
County: Dublin
Teacher: Ms Helena Lynn
Student(s): Leah Dunne, Hannah Gibbs

1508
Title: Investigating the Indoor 'Silent Killers' during the Pandemic!
Overview: We are investigating the levels of Volatile Organic Compounds and Particulate Matter in homes during and after lock-down and how to get rid of it.
School: St Marys College
County: Wicklow
Teacher: Ms Joanne English
Student(s): Leilani Phillips, Senuri Wickramaratne

1509
Title: Bypass construction, farm disruption?
Overview: We wish to find out the effects that the construction of the new N22 Cork to Kerry bypass is having on local farms and farmers.
School: St Mary's Secondary School
County: Cork
Teacher: Ms Shannen Foley
Student(s): Aoife Downey, Siobhán O'Leary

1510
Title: An bhful sport foirine níos fear an sport an indibhid cun luis frithluia a feabhsú
Overview: Táimid chun féachaint an bhfuil tionchar ag imirt spóirt ar do chuid luas frithluia. Agus an bhfuil sport foirine níos fear na sport indibhid.
School: Coláiste Pobal Osraí
County: Kilkenny
Teacher: Ms Julia Coffey
Student(s): Zak Kennedy, Cormac Kennedy Power

1511
Title: Effects that different diets have on a venus fly trap
Overview: We will be testing the different impacts that different diets can have on a venus fly trap
School: Portlaoise College
County: Laois
Teacher: Mr Chris Gleeson
Student(s): Josh Boylan, Marta Kozakiewicz, Natalia Orlik

1512
Title: "Behind the mask"
Overview: We aim to test for and analyse the prevalence of common microbial contaminants on a variety of materials that are frequently used in mask production.
School: Coláiste Naomh Mhuire
County: Kildare
Teacher: Ms Naoise Gallagher
Student(s): Ella Gilman, Ali Lenihan

1513
Title: Wool - Savior of Our Sea
Overview: To develop a wool blanket which allows the timely and thorough removal of oil slicks following oil spills.
School: Moate Community School
County: Westmeath
Teacher: Ms Mairead Cusack
Student(s): Abby Mullins, Chloe Murphy, Megan Carroll

1514
Title: To produce and evaluate the effectiveness of an organic fertilizer using household food waste
Overview: Our aim is to make an organic fertilizer from household waste and then test it to determine its effectiveness in comparison to chemical fertilizers
School: C.B.S. Thurles
County: Tipperary
Teacher: Mr Patrick Dunne
Student(s): Sean Costello, Adam Jones

1515
Title: Bio-degradable Mycelium Food Containers.
Overview: This project aims to create durable, bio-degradable and insulating food containers and cutlery from mycelium to replace existing one-use plastic products.
School: Clonakilty Community College
County: Cork
Teacher: Mr Patrick O Keeffe
Student(s): Christopher O'Donovan, Mikolay Oramus

1516
Title: Which brand of toothpaste is the most effective at removing plaque?
Overview: Our project is based on tooth-decay, commonly referred to as cavities. It's aim is to find which brand of toothpaste is best at removing plaque.
School: Loreto Secondary School
County: Tipperary
Teacher: Ms Ciara Tyrrell
Student(s): Jane Bergin, Muireann Duffy, Céline Durand

1517
Title: What is the reproduction rate of bacteria on school uniforms?
Overview: The reproduction rate of bacteria on school uniforms will be examined over the span of 96 hours to determine if school uniforms should washed daily
School: Coláiste Choilm
County: Cork
Teacher: Ms Grainne Costigan
Student(s): Maciej Rojek, Cathal O Donoghue, Daniel Quinn

1518
Title: Stop milk spoilage; start seeing changes
Overview: To design and produce a milk carton that reduces spoilage and indicates to the consumer when milk has gone off thereby reducing milk wastage.
School: Moate Community School
County: Westmeath
Teacher: Ms Mairead Cusack
Student(s): Áine Maxwell, Joyce Conway, Laura Conlon

1519
Title: Investigating the antimicrobial activity of native Irish tree barks.
Overview: We aim to investigate if the barks of native Irish trees have antimicrobial properties on bacterial cultures.
School: Abbey Vocational School
County: Donegal
Teacher: Ms Donna Furey
Student(s): Joseph Woods, Eadaoin Morphy

1520
Title: Do microwaves affect the levels of nutrients in food?
Overview: We want to find out if microwaves affect the levels of vitamins, proteins, fats and carbohydrates in food.
School: Castlecomer Community School
County: Kilkenny
Teacher: Miss Fiona Morrissey
Student(s): Lewis Oates, Taras Biletskyy, Eoghan McSweeney

1521
Title: The Bird Feeder Infection Problem
Overview: To reduce the transmission of diseases at bird feeders by inhibiting pathogen growth in food and designing a feeder to limit pathogen growth and congregation.
School: Moate Community School
County: Westmeath
Teacher: Ms Mairead Cusack
Student(s): Labhaoise Foley, Emer Killian, Kaytlin Flynn

1522
Title: Does food affect your heat rate?
Overview: We are going to give students food and test to see if their heart rate changes after they eat different foods. We are using fit bit devices.
School: Loreto Secondary School
County: Kilkenny
Teacher: Mr Brendan Williams
Student(s): Eva Prendergast, Lauren Brennan, Ailise Mahony

1523
Title: Bacteria is in disguise, don't let the levels rise
Overview: testing school desks for bacteria levels weekly to compare to the number of COVID cases.
School: Coláiste Choilm
County: Cork
Teacher: Mr Paudie Scanlon
Student(s): Ava Cahill, Aoibhe Murphy, Tomas O'Brien

1524
Title: An investigation into localised bacterial contamination (and hence possible Coronavirus) using an FSD UV Glowbag kit and its limitations

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Overview: We want to investigate the transmission of bacteria/ virus from objects and people, as well as test the growth of bacteria/ virus on agar dishes.
School: Scoil Mhuire gan Smál
County: Roscommon
Teacher: Mr Padraig Harlow
Student(s): Amy Casey, Éabha Kenny

1525
Title: The effect of fertiliser on the growth of grass
Overview: The effect that the use of fertiliser has on the growth rate of grass and how it compares to without fertiliser
School: St Kieran's College
County: Kilkenny
Teacher: Mr David Hennessy
Student(s): Dylan Teehan, Mark Mc Geeney, Cathal Keegan

1526
Title: Is Ireland's eradication programme for bovine TB effective ?
Overview: We aim to investigate our bovine TB eradication programme in Ireland and if we can find ways to improve it
School: Millstreet Community School
County: Cork
Teacher: Mr Francy Lyons
Student(s): Ellie Mc Sweeney, Katie O'Sullivan

1527
Title: Which drink is the most effective in cellular hydration?
Overview: The purpose of this experiment is to see which hydration drink is most beneficial in hydrating the cells of our body using visking tubing.
School: St. Anne's Secondary School
County: Tipperary
Teacher: Ms Lorraine O Dwyer
Student(s): Emily Bourke, Niamh Hayes, Keelin O'Connor

1528
Title: Do the chemicals in hand sanitizer affect your skin?
Overview: An insight into this project is Do the chemicals in hand sanitizer effect yours skin?
School: Tarbert Comprehensive School
County: Kerry
Teacher: Ms Joanne Mulvihill
Student(s): Paul Murphy, Isabelle Fitzsimons, Dara Heaphy

1529
Title: A Statistical
Overview: We aim to raise awareness among the general public about the products sold by local vendors that contain MCPA and investigate our local water supply.
School: St Bricin's Vocational School
County: Cavan
Teacher: Ms Anne-Marie Fay
Student(s): Dyllan O'Brien, Niamh Fay, Maria Alb

1530
Title: To Brand or Not to Brand - Are branded anti-bacterial wipes more effective than supermarket brands?
Overview: Our project aims to compare the effectiveness of Dettol and supermarket own brand anti-bacterial wipes and find the most effective wipe for killing bacteria.

School: Coláiste Naomh Mhuire
County: Kildare
Teacher: Mrs Rebecca Cawley
Student(s): Béibhinn Gormley, Sarah Byrne

1531
Title: The best household preservative for cut flowers.
Overview: We will investigate which household items maintain the freshness of cut flowers longest.
School: Abbey Vocational School
County: Donegal
Teacher: Ms Donna Furey
Student(s): Jane Faulkner, Amy McGroary, Jayne Glenn

1532
Title: Can we save our planet and our money, one Giant sequoia at at time
Overview: Comparing the CO_2 levels taken in and oxygen given out by Sequoia trees. Examining acidity levels in the native and non native trees in question.
School: Millstreet Community School
County: Cork
Teacher: Ms Jennifer O'Donoghue
Student(s): Sarah Morris Murray, Katie Linehan, Cara Brophy

1533
Title: The biological effects of wearing a mask on a student's day to day life.
Overview: The aim of our project/investigation is to research and test the biological effects of wearing a mask on students' day to day life.
School: Colaiste Dun an Ri
County: Cavan
Teacher: Mr Robert Lorenz
Student(s): Aaron Kennedy, Max Kelly

1534
Title: Is Bracken Fern a problem in Ireland?
Overview: Is bracken fern a problem in Ireland that needs to be controlled.Are species endangered and is there an environmentally friendly method of managing it.
School: St. Anne's Secondary School
County: Tipperary
Teacher: Ms Isabel Hogan
Student(s): Ellie Crowe, Taylor Mc Carthy

1535
Title: Are Wetlands the best Flood Prevention Scheme?
Overview: will plan to try and investigate to see if wetlands should be kept not only for biodiversity but also for flood prevention.
School: St. Anne's Secondary School
County: Tipperary
Teacher: Ms Lorraine O Dwyer
Student(s): Aisling Breen, Katie Irving, Leah Gallagher

1536
Title: Carbon sequestration in soils
Overview: Does reseeding soils lose all their carbon? Do soils that have not been reseeded for some time sequester more carbon.
School: Millstreet Community School
County: Cork
Teacher: Ms Eileen Lyons

Student(s): Chloe Bailey, Brianna Gallahue Murphy, Sarah O'Keeffe

1537
Title: An investigation into the health benefits of listening to music tuned to 432hz versus 440hz.
Overview: In our project, we wish to investigate if music tuned to 432hz is more beneficial for our health and feelings than listening to 440hz music.
School: St. Louis Secondary School
County: Monaghan
Teacher: Mr Niall Mooney
Student(s): Niamh Clerkin, Briana MacCinna

1538
Title: Does carbon concentration affect stomatal density?
Overview: Our project aims to examine whether carbon concentration affects the stomata count of leaves.
School: Coláiste Na Toirbhirte
County: Cork
Teacher: Ms Emily Aherne
Student(s): Aisling O Connor, Katie Hannon

1539
Title: Plant-Based Milk vs Animal Milk. Which is the Way of the Future?
Overview: Investigating the nutritional, environmental and economic impact of an increased consumption of plant-based milk
School: Eureka Secondary School
County: Meath
Teacher: Ms Mary Byrne
Student(s): Cáit Melady, Grace Hoey, Aisling Davis

1540
Title: Are Youths Burned Out From Being Involved In Too Much Sport
Overview: Are youths feeling burned out from being involved in an excessive amount of sport.
School: Castlecomer Community School
County: Kilkenny
Teacher: Ms Nora Henderson
Student(s): Amy Ring, Hollie Brennan, Aimee Menton

1541
Title: A study to establish the most effective cool down protocol for horses post intense exercise, using the parameters of heart rate and respiratory rate.
Overview: Our project aims to measure the rate of recovery of horses utilising heart rate measurement, following various cooldown routines after intense exercise.
School: Castlecomer Community School
County: Kilkenny
Teacher: Ms Nora Henderson
Student(s): Aoibhinn Ruane, Robyn Morrissey, Jayde Wilson

1542
Title: Do certain masks slow the spread of the coronavirus
Overview: Our project aims to make people more aware of what masks to wear to slow the spread of the coronavirus by comparing different masks.
School: Colaiste Nano Nagle
County: Limerick

Teacher: Ms Samantha Prior
Student(s): Aoife Kavanagh, Ciara Brosnan

1543
Title: An investigation into the antibacterial properties of Irish wood for food preparation
Overview: Our project aims to examine and find which Irish wood has the best antibacterial properties, why, and what applications does this have.
School: St Andrew's College
County: Dublin
Teacher: Ms Emma Buckley
Student(s): Ben Holman, Gavin Holahan

1544
Title: How Coniferous Forests affect Water Quality in the River Suck, Co. Roscommon.
Overview: How Coniferous Forests affect Water Quality in the River Suck, Co. Roscommon
School: C.B.S. Roscommon
County: Roscommon
Teacher: Ms Breege Grennan
Student(s): Eoin Mc Loughlin, Jack O Gara, Michael Reilly

1545
Title: An investigation to determine if shelter affects nutrient quantity
Overview: We are investigating if the areas near hedges and under trees contain the same amount of nutrients as the rest of a field.
School: Bailieborough Community School
County: Cavan
Teacher: Ms. Natalie Kinghan
Student(s): Aran O'Hanlon, Tadhg Barry, Mark Monaghan

1546
Title: Do people who play an instrument contract physical illnesses less often than those who don't
Overview: This project is an investigation into how playing an instrument can effect/boost the immune system.
School: Carrick-On-Shannon Community School
County: Leitrim
Teacher: Ms Sinéad Creegan
Student(s): Roy Branagan, Joseph Magrath

1547
Title: An investigation into the possible link between protective headgear and skin conditions in camogie players
Overview: We will culture bacteria/fungi from 2 points on a hurling helmet and investigate the link with skin conditions eg. acne
School: Loreto Secondary School
County: Kilkenny
Teacher: Mr Brendan Williams
Student(s): Luci Brennan, Caoimhe Carroll, Aimée Kearney

1548
Title: The Effectiveness of Covid-19 Restrictions in a School Environment
Overview: Our project aims to observe the transmission of germs in schools with the new Covid-19 restrictions.
School: Gonzaga College
County: Dublin
Teacher: Mr Stephen McGroggan

Student(s): Oisín Murray, Finn O'Neill

1549

Title: The effects of different types of face masks on "Maskne"
Overview: Do different type of masks effect the skin on the faces of teenage boys, can the different types cause more or less severe "breakouts".
School: C.B.S. Roscommon
County: Roscommon
Teacher: Ms Breege Grennan
Student(s): Conor Golden, Rodhan Dowd

1550

Title: An investigation into if nano silver has an affect on the growth of Pissum Savitum
Overview: We are investigating if a substance called nano silver has a harmful effect on the Pissum Savitum.
School: Ardgillan Community College
County: Dublin
Teacher: Ms Laura Sheahan
Student(s): Ali Khan, Bazil Khan

1551

Title: An investigation into the plastic content of teabags
Overview: Our project aims to investigate the plastic content in different types and brands of tea bags to see which is the most sustainable and eco-friendly
School: St Mary's High School
County: Cork
Teacher: Ms Niamh Jones
Student(s): Anna Brenner, Grace Rooney, Suzanne Dignam

1553

Title: Injuries in adolescents - a biomechanical study
Overview: We intend to research biomechanics in adolescents. we plan to carry out tests and surveys regarding various sports, injuries and how it effects their biomechanics.
School: Athlone Community College
County: Westmeath
Teacher: Mr Niall Carty
Student(s): Ellen McCabe   , Roisin Murphy, Laura Madden

1554

Title: Are You Ready To Tumble? Protecting oceans from the microplastics in our laundry
Overview: We aim to develop and test a bag to help catch microfibres released during wash cycles.
School: Sandymount Park Educate Together Secondary School
County: Dublin
Teacher: Mr Conor Maxwell
Student(s): Greta Whipple, Sarah Boissier

1555

Title: How does fertilizer affect wildlife and the envoirnment
Overview: We will compare fertilized soil to unfertilized soil. We will also throw a quadrant and see the difference in wildlife in the two fields.
School: Meánscoil na mBráithre Criostaí
County: Kilkenny
Teacher: Mr David O' Heney
Student(s): Jack Watson, Bobby Schneider

1556

Title: Does caffeine effect reaction time in sports?
Overview: To test does caffeine really make you more alert or is it a mental thing. We will use many different tests and sources of caffeine.
School: Scoil Mhuire Kanturk
County: Cork
Teacher: Mr Aidan Noone
Student(s): Bryan Healy, James Buckley, Diarmuid O'Connor

1557

Title: To Find What Protease In Food Breaks Down Meat the Fastest
Overview: We're going to test different types of protease found in foods to see which is most effective for breaking down protein.
School: Loreto Secondary School
County: Tipperary
Teacher: Ms Ciara Tyrrell
Student(s): Lily Lindy, Matilda Toomey, Tracy Lee Dela Cuesta

1558

Title: Environmentally friendly way of drying off cows
Overview: Examine if natural remedies are more effective than antibiotics
School: St Joseph's Secondary School
County: Westmeath
Teacher: Mr Darragh Glynn
Student(s): Colin Burke, Niall Whelehan, Darragh Hall

1559

Title: Too Fit, Too Healthy, Too Sudden
Overview: We will investigate the barriers for post primary student athlete to accessing annual cardiac screening.
School: Athlone Community College
County: Westmeath
Teacher: Mr Gavin Beirne
Student(s): Ria Lennon, Johanna Hughes

1560

Title: Is music therepy an effective treatment for alzheimers
Overview: Our project is to test how music effects an alzeimers patients mood and if it lowers agitation
School: St. Louis Secondary School
County: Monaghan
Teacher: Mr Niall Mooney
Student(s): Louise McElvaney, Katie Rose McKenna

1561

Title: An investigation into the link between abitoic factors and the insect population decline; how it will negatively affect biodiversity and our daily lives in Douglas in the future.
Overview: We will investigate factors affecting a decline in insects, looking at air equality, temperature and rainfall, with the help of EPA and Biodiversity Ireland statistics.
School: Regina Mundi College
County: Cork
Teacher: Mr Ger O'Donovan
Student(s): Ciara Maye, Ella Rose Hayden

1562

Title: A comparative study to analyze lactobacillus versions on the growth of salad seeds.
Overview: We will investigate if the addition of probiotics to salad leaves will affect the rate of growth of the salad seeds.
School: St Aloysius College Carrigtwohill
County: Cork
Teacher: Ms Angelina Carew
Student(s): Abigail Cotter, Sinéad Crotty

1563

Title: A Comparative Analysis Of The Different Rock Types That Make Up "Pebbles" On Beaches in Louth
Overview: An comparative investigation into the distribution of different rock types that appear on our local beaches against a background of geological surveys.
School: St Vincent's Secondary School
County: Louth
Teacher: Mr John White
Student(s): Eithne Kelly, Isabella Callanan

1564

Title: Fruit Fly Repellant
Overview: We are looking for a food-safe way to repel fruit flies. We will be experimenting with different formulae and the reaction flies have to them.
School: Mercy College
County: Sligo
Teacher: Ms Karen Rowe
Student(s): Róisín Eglinton, Aoibhín Holmes

1565

Title: Could vertical farming be used as a more efficient farming method than conventional arable farming in Ireland?
Overview: We aim to find out if vertical farming could be a quicker and more cost effective method of farming than conventional arable farming in Ireland
School: Loreto Secondary School, Balbriggan
County: Dublin
Teacher: Ms Chloe White
Student(s): Niamh McManus, Jess Joy

1566

Title: Which antacid remedies are most effective in the treatment of heartburn, and why?
Overview: Our project aims to discover more about the different remedies used to treat heartburn and learn what makes one more effective than the other.
School: Maria Immaculata Community College
County: Cork
Teacher: Ms Cliona Ni Dhonnabhain
Student(s): Ellen Lucey, Alannah Wrynn

1567

Title: An Investigation of the Antimicrobial Properties of West Cork Lichen on Pathogenic Bacteria
Overview: Does an extract made from West Cork Lichen species have any effect on the growth rate of a culture of disease-causing bacteria?
School: Mount St Michael

County: Cork
Teacher: Ms Alison O'Neill
Student(s): Conor Ringrose, Luka Unger, Joseph Craig

1568

Title: can seaweed be used as a enviornmental and eco friendly slug repellent
Overview: We intend to investigate if seaweed could act as an environmentally and economically friendly slug repellent.
School: St Joseph's Secondary School, Rush
County: Dublin
Teacher: Mr Daryl Dunne
Student(s): Shane Murray, Andrew Carroll, Christian Cameron

1569

Title: A review of the interventions used to reduce the spread of Fusarium wilt disease.
Overview: Assessing the interventions that have been put in place by farmers to help reduce the spread of Fusarium wilt in farms.
School: St Joseph's Secondary School, Rush
County: Dublin
Teacher: Mr Daryl Dunne
Student(s): Lorcan Devine, Ben Farren, Nathan Lubanzadio

1570

Title: Eye see it: A study into the effect eye colour has on Reactive motor skills and hand eye coordination
Overview: How does eye colour effect you reactive motor skills and your hand eye coordination. Looking into how dark eyed people have better reactive motor skills.
School: St Joseph's Secondary School, Rush
County: Dublin
Teacher: Mr Daryl Dunne
Student(s): Evan Weldon, Laurence Essien, Michal Narog

1571

Title: Seaweed: 'Breakfast of Champignons'. An Investigation into the Environmental, Nutritional and Economic Benefits of Seaweed as a Natural Nutritional Supplement for Vegetables.
Overview: This project will establish the dominant seaweeds washed up on the beaches locally and provide scientific evidence for their use as a nutrient source.
School: St Joseph's Secondary School, Rush
County: Dublin
Teacher: Mr Chris O'Connell
Student(s): Darragh Halpin, Ryan Lynch, Andrew Leonard

1572

Title: Park-Life: Raising the Ecological Profile of our Town Park
Overview: Our project involves the use of environmental sampling and monitoring techniques to study a local natural habitat to raise the ecological profile of the area.
School: St Joseph's Secondary School, Rush
County: Dublin
Teacher: Mr Chris O'Connell
Student(s): Dylan McDonough, Sean Cantwell

Biological & Ecological Sciences

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SENIOR GROUP

1600
Title: What's killing you? A statistical analysis of the associations between age, gender, place of residence and cause of death in the Irish population.
Overview: We are doing a statistical analysis of CSO data relating to causes of death, across age, gender and province of residence in the Irish population.
School: Scoil Mhuire
County: Donegal
Teacher: Ms Laura Corbett
Student(s): Rory Coleman, Katelyn Doherty

1601
Title: Whats the best straw bedding for housing cattle indoors over winter.
Overview: We are comparing barley and wheat straw and seeing which is the more suitable choice for bedding calves.
School: St. Joseph's Secondary School
County: Meath
Teacher: Ms Fiona Leavy
Student(s): Claire Finnegan, Louise Crinion

1602
Title: Does colour effect the amount of feed a bird will eat?
Overview: We will leave a certain amount of bird feed outside every week, each week dying the bird feed a different colour.
School: St Bricin's Vocational School
County: Cavan
Teacher: Ms Anne-Marie Fay
Student(s): Robyn Gibson, Chloe Rowen, Emilia Mix

1603
Title: Do horses respond to human emotion?
Overview: A systematic investigation into the effect of anxiety levels of riders on the heart rate of horses.
School: Loreto Community School
County: Donegal
Teacher: Mrs Roisin Coyle
Student(s): Aoife Giles, Megan Hegarty, Tori Gallagher

1604
Title: Artificial eco-system
Overview: We are making a terrarium and recording data from it over over a selected period of time
School: Ardgillan Community College
County: Dublin
Teacher: Ms Laura Sheahan
Student(s): James Lambert, Jake Lynam

1605
Title: Eco-Friendly Bale Netting
Overview: Our project aim is to create a biodegradable and edible alternative to plastic bale net.
School: St Joseph's Community College
County: Clare
Teacher: Ms Laura Egan
Student(s): Fergal Keane, Ciarán Bonfil, Fionn Doherty

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Social & Behavioural Sciences

JUNIOR INDIVIDUAL

2100
Title: Social Media Manipulation
Overview: In this investigation I plan to see the battle between the truth and fake news and seeing how social media is manipulating us every day.
School: Templeogue College
County: Dublin
Teacher: Ms Linda Ward
Student(s): Daragh Quinn

2101
Title: Falling for the stars- a study into mainstream horoscopes affect one's personality
Overview: My project is all about how the stereotypes of the zodiac signs can affect one's personality and how one behave in society.
School: Coláiste Muire Crosshaven
County: Cork
Teacher: Mr Brian Kavanagh
Student(s): Karen Cotter

2102
Title: An Analytical Study of the Psychological Impact of the Coronavirus Pandemic
Overview: My project aims to determine the psychological impact of the coronavirus pandemic on individuals who visit the GP surgery regularly.
School: Mercy Secondary School
County: Kerry
Teacher: Miss Eimear Nolan
Student(s): Rachel Feeley

2103
Title: Blended Learning: Using online learning techniques to support 2nd Level Education
Overview: An investigation into the social and educational effects of blended learning and how including online learning techniques can support 2nd level education.
School: Mungret Community College
County: Limerick
Teacher: mr John McCarthy
Student(s): Aisling Hardiman

2104
Title: CAN-TEENS Make Better Food Choices?
Overview: My project aims to encourage adolescent students to make healthier food choices when consuming food from their school canteen using a 'traffic-light' system.
School: St. Brogan's College
County: Cork
Teacher: Miss Karen Corbett
Student(s): Caoimhe Walsh

2105
Title: The Statistic Analysis of Adolescent Perceptions and Attitudes towards people with Down Syndrome
Overview: This study will investigate the perceptions and attitudes of 12-18 year old mainstream students towards people with Down syndrome.
School: Colaiste Treasa

County: Cork
Teacher: Ms Joanne Corkery
Student(s): Eva Aspel

2106
Title: COVID-19: A statistical investigation of the impact of the COVID-19 social restrictions during the lockdown on the well-being of 10 to 18 year olds
Overview: My project aims to investigate the impact that COVID-19 social restrictions have had on the well-being of 10 to 18 year olds during the lockdown.
School: St Conleth's College
County: Dublin
Teacher: Mr Seamus Callaghan
Student(s): Jamie MacNicholas

2107
Title: Where's my voice? A student's analysis on the effects of face coverings in a school environment.
Overview: Analysing students' opinions, from 1st-4th years, on the effects (overall wellbeing and student voice) of face coverings in a school environment.
School: Coláiste Naomh Mhuire
County: Kildare
Teacher: Ms Naoise Gallagher
Student(s): Amelia Read

2108
Title: "Does eating cheese before bed really keep you awake at night? - Using hypothesis testing and tests of significance to really get to the bottom of this old wife's tale"
Overview: Using hypothesis testing and tests of significance to investigate if eating cheese before bed really does keep you awake or not!
School: Pobalscoil Neasain
County: Dublin
Teacher: Ms Gemma Buicke
Student(s): Rosie May Penn Chester

2109
Title: "What's in a name?" Nuclear vs. Fission
Overview: An investigation into the effcts of changing the phrase nuclear power to fission power and seeing its effect on people's perception of fission power.
School: Coláiste Cholmáin
County: Cork
Teacher: Ms Claudia O Donoghue
Student(s): Fionn Nolan

2110
Title: The impact of Infodemic on possible Covid 19 vaccine hesitancy
Overview: This project is about the Infodemic in secondary schools, and how this relates to Covid-19 vaccine hesitancy.
School: C.B.S. Secondary School
County: Kerry
Teacher: Ms Eilin Enright
Student(s): Preston O'Keeffe

2111
Title: A Statistical study of the use of CPR and AEDs
Overview: My project aims to understand how the Irish public is

lacking in awareness and confidence around CPR and the use of AEDs.
School: Kinsale Community School
County: Cork
Teacher: Mr Shaun Holly
Student(s): Christina Hurley

2112
Title: Kid's Menus - What Are The Options?
Overview: This project will look at the most common options in kid's menus, which are the most popular and the reasons they are chosen.
School: Muckross Park College
County: Dublin
Teacher: Mr. Stephen O'Keeffe
Student(s): Emma Guiry

2113
Title: An assessment of the Effects of lockdown and Isolation on physical and mental wellbeing of teenagers.
Overview: We want to assess of the Effects of lockdown and Isolation on physical and mental wellbeing of teenagers.
School: Coláiste Ailigh
County: Donegal
Teacher: Mr Keith Cowan
Student(s): Ruaidhrí Gallachóir

INTERMEDIATE INDIVIDUAL

2200
Title: Who's minds the medics? A mixed methods investigation into the well being of Irish health care staff
Overview: This project is an investigation into the well being, work place stress, job satisfaction and rates of burnout in health care professionals in Ireland.
School: Colaiste Treasa
County: Cork
Teacher: Ms Joanne Corkery
Student(s): Hannah Walsh

2201
Title: An investigation to measure the consequences of horticulture on mental health
Overview: Horticulture is significant for the economy, and gardening is a popular pastime. This project hopes to generate useful data about their benefits for mental health.
School: Colaiste An Phiarsaigh
County: Cork
Teacher: Mr Caoimhín Ó Buachalla
Student(s): Evie Ní Nuanáin

2202
Title: why is the uptake in physics so low in girls?
Overview: My project aims to find out the main reasons why less girls do leaving cert physics in comperison to males
School: St Mary's Secondary School
County: Cork
Teacher: Ms Jennifer Butler
Student(s): Aisling Rea

2203
Title: An investigation into the effect of the COVID-19 lockdown on Domestic Violence in Irish households.
Overview: An in depth study on how the COVID-19 lockdown has affected the levels of domestic abuse in Ireland.
School: St Mary's Secondary School
County: Cork
Teacher: Ms Jennifer Butler
Student(s): Sophie Mc Crory

2204
Title: would taking regular mental health days benefit teen-agers
Overview: my project is about trying to find out if taking regular mental health days with benefit you by finding out if it'll reduce stress levels.
School: Pobalscoil Inbhear Scéine
County: Kerry
Teacher: Mr John O Sullivan
Student(s): Shane Brennan

2205
Title: An 'Infodemic' during a Pandemic
Overview: My project aims to investigate whether people can tell if COVID-19 headlines are real or fake and would they share the headlines to others.
School: Pobalscoil Inbhear Scéine
County: Kerry
Teacher: Mr John O Sullivan
Student(s): Mairead O Dwyer

2206
Title: To Design A Learning Plan For Primary Schools To Prevent Future Hate Crime
Overview: My project aims to design a diversity and inclusivity learning plan for primary schools to prevent hate crime in the future
School: Mungret Community College
County: Limerick
Teacher: mr John McCarthy
Student(s): Cathal Carmody

2207
Title: Stay at home vs. Working mothers: how are their children raised?
Overview: My project aims to find the differences in children's values, gender stereotypes, behaviours and attitude towards education depending on their parents working status.
School: St Mary's Secondary School
County: Cork
Teacher: Ms Shannen Foley
Student(s): Brigín Kelleher

2208
Title: The Social & Psychological Impact of Face Masks/Face Coverings on Society
Overview: To investigate whether the wearing of Face Masks has impacted our society's social behaviours; and how new social techniques have evolved as a result.
School: De La Salle College Cork
County: Cork
Teacher: Ms Aisling Kelleher
Student(s): Finn Ó Brádaigh

2209

Title: Disproving the Theory of Overpopulation

Overview: To look into the theory of overpopulation and show that with lowering birth rates there will be a decrease in population by 2100.

School: Coláiste Eoin

County: Dublin

Teacher: Mr Des Gaffney

Student(s): Robert Rybczynski

2211

Title: Could social media be making you socially distant? An investigation into how our use of phones has caused us to become less social.

Overview: This project will discuss how leaving your phone at home and not using social media at all could have a positive impact on all areas of your health as well as your relationships with others.

School: Coláiste Mhuire Co-Ed

County: Tipperary

Teacher: Miss Katie Carr

Student(s): Suzanne Ryan

2212

Title: Is Social Media Destroying Political Democracy

Overview: I want to understand if Social Media is affecting democracies globally, if Social Media can choose who achieves political power. Does true democracy still exist.

School: St. Brendan's Community School

County: Offaly

Teacher: Mrs Kelly-Anne Milne

Student(s): Daniel Walshe

2213

Title: Teaching from home during lockdown: A teacher's perspective

Overview: I investigate how second-level teachers in Ireland viewed and responded to teaching from home during the COVID-19 pandemic.

School: Grange Community College

County: Dublin

Teacher: Ms Fiona Ryan

Student(s): Roula El-Sherbiny

2214

Title: An analysis of the existing supports and resources in place for disabled individuals participating in the workplace in Ireland, and a proposal for a new scheme to improve them

Overview: An analysis of the resources currently available to disabled people entering and participating in the workplace, and a proposal for a scheme to improve them.

School: Midleton College

County: Cork

Teacher: Ms. Niamh O'Mahony

Student(s): Amy Walsh

2215

Title: An investigation into how face coverings have an effect within Post-Primary schools.

Overview: Since we have to wear face coverings for the majority of the day we decided to delve into this topic and see if the frequency and sound level changes depending on the type of face mask used.

School: Midleton College

County: Cork

Teacher: Ms. Niamh O'Mahony

Student(s): Mia Cosgrave

2216

Title: Students' exposure and understanding of alt-right dog whistles; does political orientation correlate with online saturation of said symbols

Overview: An exploration of students' level of exposure and knowledge of alt-right ideologies and symbols, and whether it affects their political orientation.

School: Midleton College

County: Cork

Teacher: Ms. Niamh O'Mahony

Student(s): Éabha Treacy

2217

Title: The Conditioning of the next generation to gamble through the use of video games

Overview: An in depth analaysis of whether or not video games condition young people to gamble and if so what methods are used for said conditioning.

School: Coláiste Choilm

County: Cork

Teacher: Mr Paudie Scanlon

Student(s): Ben Murphy

2218

Title: Studying is Hard, But Who had it Harder?

Overview: I plan to conduct an experiment exploring how well these three studying techniques work at school versus in a home setting.

School: Gonzaga College

County: Dublin

Teacher: Mr Stephen McGroggan

Student(s): Seán Radcliffe

2219

Title: A statistical analysis of student's school experiences with intellectual disabilities vs non-intellectual disabilities.

Overview: my project is about how people with intellectual disabilities school experiences differ from people that don't have a intellectual disabilities.

School: Blackwater Community School

County: Waterford

Teacher: Mrs Brigid Barrett

Student(s): Grace Arrigan

2220

Title: Tell me what to think

Overview: The project aims to find whether young people's opinions are heavily influenced by figures on social media and/or by popularity.

School: Rosemont School

County: Dublin

Teacher: Ms Maeve Carolan

Student(s): Sabastine Pennington

2221

Title: An investigation into how ingrained the lack of status for female athletes is in comparison to male athletes and to what extent is this a

cognitive bias.
Overview: I want to investigate how deep inequality in sport goes. Does it happen at a cognitive level, or are we aware of it?
School: Coláiste Muire Crosshaven
County: Cork
Teacher: Ms Martina McMahon
Student(s): Niamh Nash

2222
Title: Analyzing the difference between Car Insurance rates Between Ireland and other developed countries and why this occurs
Overview: This project aims to quantify and find the reason behind the differences in car insurance rates between Ireland, the UK, and the USA
School: Bishopstown Community School
County: Cork
Teacher: Ms Michelle O Brien
Student(s): Marcus Bryan

2223
Title: The Impact of Robotic Assistance on Farms has on Mental Health and Animal Welfare
Overview: My project aims to investigate how robotic machines impact life on a farm and also how it impacts animal welfare.
School: The Abbey School
County: Tipperary
Teacher: Ms. Eavan Ryan
Student(s): Cormac Donovan

2225
Title: The Effect of Binaural Beats On Our Memory
Overview: I believe that binaural beats (40hz) induces gamma waves in the brain (frequency following response) which could aid memory.
School: Heywood Community School
County: Laois
Teacher: Ms Sharon Magner
Student(s): Cillian Moran

2226
Title: Cognitive Deterioration – effects, causes and possible means of combat
Overview: I'll survey people about how much they know about cognitive deterioration and it's effects to increase awareness about it and help combat it.
School: St Brigids Vocational School
County: Galway
Teacher: Ms Sarah Clarke
Student(s): Robert Treacy

2227
Title: A Statistical Investigation into the Flaws of the Sexuality Education Curriculum in Ireland.
Overview: The aim of this project is to investigate the flaws of the sexuality education curriculum in Ireland via survey and compile online resources for teachers.
School: Midleton College
County: Cork
Teacher: Ms. Niamh O'Mahony
Student(s): Ava Murphy

2228
Title: 'It's the small things- An Investigation into the division of Emotional Labour in the home and suggestions on how gender imbalances can be rectified'.
Overview: My project aims to investigate how Emotional Labour is divided in the home and make suggestions on how any gender imbalances can be rectified.
School: Scoil Mhuire gan Smál
County: Roscommon
Teacher: Mr James McLoughlin
Student(s): Katie Harlow

2229
Title: A statistical analysis on the level of knowledge and attitude to meningococcal sepsis and meningococcal vaccine (ACWY) in Irish adolescents
Overview: An investigation of students in secondary schools in Ireland, to evaluate their level of knowledge on meningococcal sepsis and to raise awareness of meningococcal disease.
School: C.B.S. Secondary School
County: Kerry
Teacher: Ms Maire Fitzgerald
Student(s): Joel Varghese

2230
Title: Meritocracy in schools; eliminating luck in the equation of success
Overview: I'll be seeking to expose the formula of success; what role meritocracy has: in order to surge learning curves and success rates in Ireland.
School: Colaiste Nano Nagle
County: Limerick
Teacher: Ms Kelly Walsh
Student(s): Kaja Bozi

2231
Title: The Effectiveness Of Healthy Nutritious Foods Being Served In Second Level Schools To Create Healthy Habits A Quantitative Analysis
Overview: I want to research about how the temptation of unhealthy foods in our canteen is effecting our students health.
School: Athlone Community College
County: Westmeath
Teacher: Mr Gavin Beirne
Student(s): Niamh Dunning

2232
Title: The disproportionate nature of the gender gap in politics
Overview: My project aims to explore why there is a statistically undeniable gender gap in politics and how we can encourage more females to get involved.
School: Laurel Hill Secondary School FCJ
County: Limerick
Teacher: Ms Karen Kinnerk
Student(s): Keelin Murphy

2233
Title: A statistical analysis of the influence of canvassing on voters voting decisions in the 2020 general election
Overview: The objective of the project is to find out if canvassing influences voters voting decision with in-depth analysis of the 18-24

year old group.
School: Rockwell College
County: Tipperary
Teacher: Ms Helen Murray
Student(s): Kevin Clancy

2234
Title: 'I Hear Everything' - An investigation into the lack of knowledge and inclusion of Sensory Processing Disorder in society
Overview: I aim to examine why some people do not fully comprehend Sensory Processing Disorder and what factors affect this.
School: Athlone Community College
County: Westmeath
Teacher: Mr Gavin Beirne
Student(s): Sarah Fitzpatrick

2235
Title: gamers' wins vs gamers' losses
Overview: Gaming has become a very popular hobby/past time for people recently. This project will look at what are the unconscious ben
School: Athlone Community College
County: Westmeath
Teacher: Ms Laura Donnellan
Student(s): Jose Kochumuttam

2236
Title: Are they too young?
Overview: An investigation on how our younger generation has evolved with the help of technology and social media quite negatively (drugs alcohol, graphic content, etc)
School: Le Chéile Secondary School
County: Dublin
Teacher: Dr. Ciara Finnegan
Student(s): Sharon Okanume

2237
Title: Covidiocy' - an emerging phenomenon
Overview: This project explores attitudes, psychological and psychosociological factors associated with non-compliance, amongst Irish adolescents, with behavioural recommendations during the Coronavirus Pandemic.
School: Castletroy College
County: Limerick
Teacher: Ms Ellen Murnane
Student(s): Orna Collins

2240
Title: How Do Different Styles of Music Affect Our Heart and Our Emotions
Overview: Music affects everyone differently. This intrigued me so I wanted to see how people's heart rate and emotions are affected by different styles of music.
School: St Aloysius School
County: Cork
Teacher: Ms Katie O'Donovan
Student(s): Saoirse Geaney

2241
Title: "The Impact of Social Media on the Voters of the Future in Ireland"

Overview: A study of the influences, behaviours and attitudes of young people making voting choices, is Ireland on trend to follow the US & the UK?
School: Laurel Hill Secondary School FCJ
County: Limerick
Teacher: Ms Karen Kinnerk
Student(s): Aoife Barrett

2242
Title: The development of racial prejudice in children: a statistical analysis on the influence of society and home life on a child's thoughts and attitudes towards racism
Overview: My project aims to investigate which factors in society and in family life influence racial prejudice and discrimination in children, and how to prevent it
School: Castletroy College
County: Limerick
Teacher: Ms Ellen Murnane
Student(s): Aronnya Khan Zakaria

2243
Title: Students Without Stress
Overview: My project aims to find out if a period of time to relax and de-stress before exams can improve results.
School: Colaiste Pobail Setanta
County: Dublin
Teacher: Ms Sharon Daley
Student(s): Ciara Murray

2244
Title: A Theory About Conspiracy Theories
Overview: In this project we aim to find out more about conspiracy theories and fake news. We will be looking at propaganda and the media
School: Youthreach Navan
County: Meath
Teacher: Ms Sharon Maher
Student(s): Max Chmieliauskas

2246
Title: How do different generations interpret climate change and its effects?
Overview: My aims in this project are to find out what people believe the effects of global warming to be.
School: Christian Brothers Secondary School Cork
County: Cork
Teacher: Ms Marjorie Ryan
Student(s): Adam Hennessy

2247
Title: A qualitative and quantitative investigation into the factors that influence the use of non-steroidal anti-inflammatory drugs (NSAID's) amongst GAA players.
Overview: An qualitative and quantitative investigation into the factors that influence the use/misuse of non-steriodial anti-inflammatory drugs's amongst GAA club players.
School: Lanesboro Community College
County: Longford
Teacher: Mr Michael Lyons
Student(s): Conor Lyons

Social & Behavioural Sciences

2248
Title: Are Kinesthetic Learners Given Enough Support in and out of the Classroom?
Overview: The aim of this project is to identify different learning types and how each of them is supported in class and during home study
School: Coláiste Lorcáin
County: Kildare
Teacher: Mrs Fiona Searing
Student(s): Gabriel Pollard-Curran

2249
Title: Do virtual escape rooms help students to learn about laboratory experiments?
Overview: In this experiment, I will find out if virtual escape rooms help students to learn about laboratory experiments.
School: Loreto Secondary School, Balbriggan
County: Dublin
Teacher: Mr Brian Higgins
Student(s): Claire Johnson

2250
Title: An analysis of fire service statistics since 2005
Overview: To investigate the fire services statistics published by the Department of Housing, Planning and Local government in order to predict future fire deaths and instances
School: Summerhill College
County: Sligo
Teacher: Mr Fintan Whelan
Student(s): John Mackey

2251
Title: Can secondary school students learn word translations whilst sleeping and if so, which sleep stage will maximize this?
Overview: Using Fitbits and audio recordings, I'll discover whether secondary school students can learn word translations whilst sleeping, and which sleep stage is best for this?
School: Loreto College
County: Dublin
Teacher: Ms Carol Byrne
Student(s): Kate Fensom

2252
Title: The development of a learning through play activity to combat racial bias in children.
Overview: My projects aim is to combat racial bias in children by developing an activity that can be adapted in creches,preschools and primary schools.
School: Mercy Secondary School
County: Kerry
Teacher: Miss Eimear Nolan
Student(s): Katie Prendiville

SENIOR INDIVIDUAL

2300
Title: Real-time analysis of the effect of lockdown on post primary students in a DEIS school.
Overview: A real time analysis over 11 weeks of the effect of lockdown on the stress levels and relationships of DEIS post primary students.

School: Vocational College Bunclody
County: Wexford
Teacher: Ms Maire Finn
Student(s): Leah Coleman

2301
Title: Emotions Felt By Teenage Boys During Covid-19 Lockdown. An Irish Perspective
Overview: I intend to the capture emotions felt by teenage boys during the Covid-19 lockdown by conducting a piece of qualitative research.
School: St. Joseph's C.B.S
County: Tipperary
Teacher: Mr Eoghain O'Keeffe
Student(s): Dylan Geoghegan

2302
Title: The regulations at play behind your physical activity: A statistical analysis into how we can use SDT to better motivate the nation to participate in physical activity
Overview: To investigate how the regulations of motivation affects exercise levels and how we can use SDT to better motivate the nation.
School: Heywood Community School
County: Laois
Teacher: Mr Aodhagan O Suilleabhain
Student(s): Evan Hogg

2304
Title: Current Social Media Conversations on Human Germline Genome Editing: A Twitter based Analysis
Overview: To understand what topics are being discussed and what information is being shared by social media users about CRISPR-Cas9 technology and human germline genome editing.
School: The Institute Of Education - Dublin
County: Dublin
Teacher: Ms Catriona Hendry
Student(s): Tara Berry

2305
Title: Glossophobia : Finding Your Audience
Overview: An investigation into glossophobia (public speaking anxiety) with focus on its causes, as well as the affect online school and masks have had on glossophobes.
School: Ursuline College
County: Sligo
Teacher: Mr Anthony Carolan
Student(s): Aoibheann Kearins

2306
Title: Fiosrúchán ar na Praiticiúlachtaí, agus Anailís Costa is Tairbhe ar an Maoiniú ón Rialtas don Suiteáil Painéal Gréine i nGach Teach in Éirinn
Overview: Fiosrúchán ar na praiticiúlachtaí do phainéil ghréine a bheith curtha ag an rialtas i ngach teach sa tír, agus an costas is tairbhe a ríomh.
School: Scoil Chaitriona
County: Dublin
Teacher: Ms Muireann Ní Chonchúir
Student(s): Michael Kennedy

2307

Title: The Scientific Study of Dreams
Overview: Investigate a study on dreams, what causes them, how they are affected/influenced, why they happen and has COVID-19 influenced what we are dreaming about.
School: St Ciaran's High School
County: Tyrone
Teacher: Mrs Pauline Murphy
Student(s): Anastazja Milczarek

2309

Title: Cén ghlúin is mó a bhaineann an paindéim Covid-19 leo?/ Which generation is most concerned about the Covid-19 Pandemic?
Overview: A comparison between generations' actions and attitudes in relation to the Covid-19 Pandemic.
School: Coláiste Ailigh
County: Donegal
Teacher: Mr Shane Ó Breacáin
Student(s): Pól Mac Giolla Easpaig

2311

Title: Why is there such a taboo in Ireland surrounding menstraution?
Overview: There is such a stigma about periods in Ireland. I want to see a teen girls perspective on this and how they feel
School: St Mary's Secondary School
County: Dublin
Teacher: Ms Eilish Coleman
Student(s): Emma Murphy

JUNIOR GROUP

2400

Title: W.A.S.T.E (Worthless activities that steal time and energy)
Overview: To raise awareness of the importance of disposing waste correctly and to eliminate the misconceptions around single use coffee cups.
School: St. Brogan's College
County: Cork
Teacher: Ms Laura O'Regan
Student(s): Clodagh O Sullivan, Meabh O Mahony, Caoimhe Foley

2401

Title: Keep calm & carry on breastfeeding
Overview: An exploration into the knowledge and attitudes of post primary students towards breastfeeding.
School: St. Brogan's College
County: Cork
Teacher: Ms Laura O'Regan
Student(s): Lucy Teape, Kate Lehane

2402

Title: E.Y.E (Enhance Your Education)
Overview: To test students abilities to see patterns and to identify if this correlates with their talents, interests and educational achievement.
School: St. Brogan's College
County: Cork
Teacher: Ms Laura O'Regan
Student(s): Tomás Markey, Saoirse O'Neill

2403

Title: Mobile phone usage and the impact of push notifications
Overview: Our project is finding out how much we use our phones on a daily basis and the effect of notifications.
School: Colaiste An Phiarsaigh
County: Cork
Teacher: Mr Caoimhín Ó Buachalla
Student(s): Caoímhin Ó Murchú, Shane Hourigan, Darragh McSweeney

2404

Title: A statistical investigation into Nomophobia and Smartphone addiction and developing a solution to reduce these issues from occurring amongst pre-teenagers
Overview: With the help of research/surveys, we will create a plan for pre-teenagers to follow to prevent the development of phone issues later in life.
School: Coláiste Choilm
County: Cork
Teacher: Ms Grainne Costigan
Student(s): Vanessa Alatise, Mileta Grenouilleau, Kamile Grenouilleau

2405

Title: Calories VS Chemicals
Overview: To investigate if food choices should be influenced by chemical composition or calorie content.
School: St. Brogan's College
County: Cork
Teacher: Ms Laura O'Regan
Student(s): Kate O'Leary, Leah Lordan

2406

Title: A study of the factors that affect the type of dreams we experience.
Overview: Our project aims to investigate how factors such as age, gender and lifestyle affect the types of dreams we experience.
School: Colaiste Dun an Ri
County: Cavan
Teacher: Ms Siobhan Hamill
Student(s): Beata Ukoeninn, Adrija Gumbreviciute

2407

Title: An Investigation into the relationship between Irish lottery participants and their socio-demographic backgrounds.
Overview: We will investigate the relationship between people's cultural backgrounds, financial status, education etc and their decision to participate in the lottery. We determine if the lottery is a gateway to gambling on a larger scale for young people.
School: Colaiste Dun an Ri
County: Cavan
Teacher: Ms Linda Kelly
Student(s): Hannah O'Reilly, Aideen Rooney, Dinara O'Reilly

2408

Title: How Covid-19 has had an impact on global warming.
Overview: We hope to examine the impact of Covid-19 on Global Warming.Worldwide lockdown has made a positive impact on slowing down the effects of global warming.
School: St. Brogan's College
County: Cork

Teacher: Ms Laura O'Regan
Student(s): Doireann Walsh, Caoimhe Ryan, Tadhg Og O'Donovan

2409
Title: Budgies and their habitats
Overview: Comparing the stereotypical budgie cage to what a budgies proper habitat should look like and studying how the budgie should react in their cage.
School: Scoil Mhuire gan Smál Blarney
County: Cork
Teacher: Ms Marguerite ODonoghue
Student(s): Sophie O'Flynn, Claire Hyland

2410
Title: Tionchar tuismitheora ar rannpháirtíocht sa spórt i measc déagóirí baineanna, agus na fachtóirí a imríonn tionchar ar rannpháirtíocht na gcailíní sa spórt.
Overview: Thugamar faoi deara go n-éiríonn a lán cailíní as spórt nuair a thosaíonn siad sa mheánscoil. Ba mhaith linn na cúiseanna a fhiosrú.
School: Gaelcholáiste an Phiarsaigh
County: Dublin
Teacher: Ms Emma De Búrca
Student(s): Aoibheann Ní Fhachtna, Sadhbh Ní Bhroin, Laoise Ní Íoruaidh

2411
Title: "The Magic Feather": One weird trick to boost athletic performance
Overview: Examining the Placebo effect of a magic wrist band on the sports performance of a number of first year students.
School: Tallaght Community School
County: Dublin
Teacher: Ms Kate O'Gorman
Student(s): Lauren Coughlan, Leah Leddy, Ayomiposi Oshundaro

2412
Title: Is COVID-19 a catalyst for sustainability
Overview: To investigate whether COVID-19 has had a positive effect on the environment or if it has made environmental factors like pollution or climate change worse.
School: Choláiste Cholmcille
County: Donegal
Teacher: Mr Fenton McHugh
Student(s): Alessandro Cian, Joseph Harrison

2413
Title: An Statistical Analysis of the Covid-19 on the Irish Diet
Overview: Our project aims to establish the effect of the Covid-19 lockdown on the Irish diet and develop a strategy to promote healthy shopping habits.
School: Moate Community School
County: Westmeath
Teacher: Ms Mairead Cusack
Student(s): Sarah McCormack, Skyla Looney, Niamh Kelly

2414
Title: women in farming
Overview: To investigate why women aren't traditionally as encouraged into farming/agriculture as men.
School: Boherbue Comprehensive School
County: Cork
Teacher: Mrs Orla Dineen
Student(s): Molly O'Sullivan, Cara Courtney

2415
Title: The Dark Side of Blue Light
Overview: The aim of our investigation is to research teenagers knowledge and understanding of blue light emissions and carry out an awareness campaign on this issue.
School: Castleblayney College
County: Monaghan
Teacher: Mrs Celine Keith
Student(s): Danika Brennan, Katelyn McGuire, Katie Burns

2416
Title: Café De Protein
Overview: our project is based on how much protein we need compared to how much we actually get. We have prepared an fun, informative interactive activity
School: Loreto Secondary School
County: Tipperary
Teacher: Ms Emma Griffin
Student(s): Elise Walsh, Heather Doyle

2417
Title: Investigating gender balance on student councils
Overview: Our objective is to investigate the gender balance on student councils in Ireland and how this leads to gender balance on public representation traits.
School: Gaelcholáiste Luimnigh
County: Limerick
Teacher: Mr Michael Mc Carthy
Student(s): Jane Madden, Olly Tierney, Aoibhe Gardiner

2418
Title: CARA; an approach to put a stop to bullying
Overview: Cara is a website that helps teenagers get advice on how to tackle bullying, if they don't have anyone to talk to.
School: Belmayne Educate Together Secondary School
County: Dublin
Teacher: Ms Emma Burrowes
Student(s): Susan Walsh, Zuzanna Żółtowska

2419
Title: How Did Lockdown Effect Different Demographics?
Overview: A study of how COVID-19 restrictions impacted different demographics of teenagers, how this can be used to design campaigns to encourage adherence to current restrictions.
School: Clonturk Community College- Educate together
County: Dublin
Teacher: Mr Patrick Connor
Student(s): Aisling Bonner, Ciara Lawler

2420
Title: Fadhbanna Sóisialta ag Déagóirí I Méanscoileanna
Overview: Tá muid ag iarraidh a fháil amach na deachtrachtaí atá ag deagóirí, conas a dhéileálann siad leis agus eolas atá acu faoi cuidiú.
School: Coláiste Ailigh

County: Donegal
Teacher: Máistreás Siobhán Laighneach
Student(s): Rachel Ní Bhógáin Nic Ailín, Ríann Ní Shirideáin, Kellie Ní Dhorráidhin

2422

Title: An investigation into the impacts of wearing face masks on the lives and learning experiences of young people
Overview: Our project aims to find out what young people experience as a result of wearing face masks and how it affects them as individuals.
School: St. Clare's Comprehensive School
County: Leitrim
Teacher: Miss Edel McPhelim
Student(s): Luchia Smyth, Bláithín Feeley, Sophie Brady

2423

Title: An investigation into how people aged 13 to 17 get their news, their awareness of fake news and their ability to identify a news source as trustworthy.
Overview: We want to find out how and where teenagers consume news and if they are able to tell if it is real or fake.
School: Patrician Academy
County: Cork
Teacher: Ms Ann-Marie Walsh
Student(s): Hugh Ahern, Conor McCarthy

2424

Title: A statistical analysis of Irish people's attitudes towards nuclear energy as a solution to achieving our carbon emission targets
Overview: As global concern about climate change increases, our project aims to find out about Irish people's attitudes towards nuclear power as an alternative energy source
School: Patrician Academy
County: Cork
Teacher: Ms Ann-Marie Walsh
Student(s): William Ahern, Eoin Dineen

2425

Title: How the lack of finishing primary school has affected 1st year students
Overview: This project will investigate the negative effects of not completing sixth class has had on first year students.
School: Coláiste Lorcáin
County: Kildare
Teacher: Ms Amy Murphy
Student(s): Sarah Reynolds, Aoife Kavanagh

2427

Title: An analysis of the intake of iron and the awareness of the importance of iron among teenage girls in the prevention of iron deficiency anaemia.
Overview: To assess teenage girls' knowledge of iron, thier intake of iron and their awareness of the importance of iron in preventing iron deficiency anaemia.
School: Colaiste Dun an Ri
County: Cavan
Teacher: Ms Siobhan Hamill
Student(s): Meghan Hurt, Anna Chushack

2428

Title: Exercising In A Lockdown - How The Digital Age Can Assist Teenagers To Exercise During A Pandemic Lockdown
Overview: A study into teenagers' exercise during Lockdown and how the digital age has helped us during these times, and can do so in future lockdowns.
School: Summerhill College
County: Sligo
Teacher: Mrs. Caroline Mc Goldrick
Student(s): Samuel Regan, Patrick Murphy

2429

Title: Ready steady learn!
Overview: Our project is about how physical exercise before class affects our learning.
School: Dominican College
County: Wicklow
Teacher: Ms Catherine Kelly
Student(s): Karla McEvoy, Keelin Campbell Rawson, Grace Doherty

2430

Title: Can relative pitch affect a person's ability to reproduce and pronounce languages?
Overview: To investigate if relative pitch affect a person's ability to reproduce and pronounce languages.
School: Loreto Secondary School, Balbriggan
County: Dublin
Teacher: Ms Chloe White
Student(s): Jessica Chen, Alana O'Conner

INTERMEDIATE GROUP

2500

Title: HighFive
Overview: We are using the Leap Motion Controller to track progress of motor function in the hand with osteoarthritis and Python to play back data.
School: Scoil Mhuire
County: Meath
Teacher: Ms Belynda Weldon O Gorman
Student(s): Étaín McCarthy, Jessica Varley, Aoife Swan

2502

Title: A Comparative Study to Investigate Experiences of Discrimination Among Ethnic Minority Students
Overview: Our project investigates the experiences of racism in ethnic minority adolescents in post-primary schools, and evaluates the differences between schools in urban and rural areas.
School: Colaiste Treasa
County: Cork
Teacher: Mr James O'Connell
Student(s): Gráinne Rahilly, Conor O Sullivan, Stella Baldassini

2503

Title: One language or two: what's better for you?
Overview: Our project aims to research the advantages of bilingualism in students aged 12 to 19. We wish to identify the perks of being a bilingual student, as opposed to a student who is monolingual

School: Millstreet Community School
County: Cork
Teacher: Ms Jennifer O'Donoghue
Student(s): Anna Moynihan, Cathy Byrnes, Alex Ducey

2504
Title: "Code Red: An investigation of attitudes towards menstrual health and environmentally friendly menstrual products in Ireland."
Overview: We plan to survey Irish women aged 13-50 years regarding their attitudes towards discussing menstruation, educating themselves on menstruation and environmentally-friendly menstrual products.
School: St Mary's Secondary School
County: Cork
Teacher: Ms Jennifer Butler
Student(s): Sadbh Bourke, Orla Lynch

2505
Title: Misogynistic Minds: A statistical investigation into the prominence of misogyny in young girl's lives'.
Overview: A study into the misogynistic experiences of girls in our local area and their perpetrators.
School: St Mary's Secondary School
County: Cork
Teacher: Ms Jennifer Butler
Student(s): Emma Cahill, Roisín O'Donoghue, Donna McCarthy

2506
Title: are parents/guardians willing to give their children CBD oils to help with various medical conditions
Overview: In our project we aim to find out if parents/guardians would be willing to give their children CBD oils to help with various medical conditions.
School: St Mary's Secondary School
County: Cork
Teacher: Ms Jennifer Butler
Student(s): Lucy O'Connor, Emma Murphy, Kate O'Sullivan

2507
Title: Predicted grades, Friend or Foe?
Overview: Our project aim is to investigate whether predicted grades have a positive impact on students and teachers and whether it should be considered as an alternative to the traditional leaving certificate.
School: St Marys College
County: Wicklow
Teacher: Ms Joanne English
Student(s): Áine Kinch, Alex Bolger

2508
Title: Is Ireland in the 'Dark Ages' in regards to forensics and is there anything we can do about it
Overview: Comparing forensics in Ireland to forensics in three other countries, Australia, The Uk and America
School: St Marys College
County: Wicklow
Teacher: Ms Joanne English
Student(s): Holly Ryan, Lucia Kasperek, Erica Fitzgerald Brun

2509
Title: Tik Tok: Why can't I stop scrolling.
Overview: We intend to investigate why scrolling through TikTok is addictive and aim to improve the awareness of the dangers of this TikTok addiction for teenagers.
School: Coláiste Na Toirbhirte
County: Cork
Teacher: Ms Emily Aherne
Student(s): Caoimhe O'Shea, Abby Bradfield, Mercedes Lipiec

2510
Title: The popularity of Direct provision and its alternatives in Ireland.
Overview: We shall survey the general public As well as those in Direct provision .On the popularity of Direct provision and other countries alternative systems .
School: Coláiste Choilm
County: Cork
Teacher: Ms Grainne Costigan
Student(s): Ben Bourke, Eoghan Moriarty

2511
Title: Investigating the link between reading for pleasure and pursuing a higher education and career.
Overview: In this project, we hope to examine the connection between reading for delight in your free time and seeking an advanced education and vocation.
School: St Joseph's College
County: Dublin
Teacher: Ms Helena Lynn
Student(s): Irene Malaykal, Erin Tomney, Aoife Pakenham-Barry

2512
Title: Movie Moral
Overview: How film changes and alters your views and choices.
School: Portlaoise College
County: Laois
Teacher: Mr Chris Gleeson
Student(s): Noor Fatima, Aleksandra Polak, Ben Campbell

2513
Title: Do you ever think how much a "thumbs up" costs?
Overview: Will reducing our social media engagement, the number of emails we send, relocating data storage centres to rural Ireland reduce carbon emissions in Ireland?
School: Millstreet Community School
County: Cork
Teacher: Ms Jennifer O'Donoghue
Student(s): Molly Morley, Amy Hickey, Katie Morley

2514
Title: A statistical analysis of teenage girls' knowledge of female disorders and diseases ie.endometriosis, PCOS, and breast and cervical cancer
Overview: Our project is about the knowledge of womens' health amongst teenage girls. We want to investigate the lack of common knowledge surrounding certain conditions.
School: St Mary's Secondary School
County: Cork

Teacher: Ms Shannen Foley
Student(s): Faye Cunningham, Rowen Moore

2515
Title: How music affects your heart rate during sleep
Overview: for our bt project we are going to be investigating how music affects our heart rate during sleep, comparing different age groups and genres
School: St Mary's Secondary School
County: Cork
Teacher: Ms Shannen Foley
Student(s): Ruby O'Shea, Ava Ronan

2516
Title: Sexism In Sport
Overview: To find out what age tge bias that boys are better than girls at sports appears in children.
School: Portlaoise College
County: Laois
Teacher: Mr Conor Whelehan
Student(s): Sean McComish Day, Faith Sacre Quigley

2517
Title: what are the causes and effects of para-social relationships in todays society (do you know your favrouite celebrity)?
Overview: Our project aims to supply information on the psychological causes and effects of para-social relationships on today's population.
School: St Joseph's Secondary School
County: Mayo
Teacher: Ms Margaret Tighe
Student(s): Marcel Adamski, Mateusz Brucki, Wiktor Turalski

2518
Title: An bhfuil vapáil ma cloch céim le haghaidh caithaimh tabaic, agus an bhfuil fhios ag deagoirí faoi na dáinsèir.
Overview: Tá meid ag iaraí faigh amach faoi an ceangailt idir vapáil agus ag caitheamh tabaic, agus an bhfuil fios ag deagoirí na dáinsèir leis.
School: Coláiste Pobal Osraí
County: Kilkenny
Teacher: Ms Julia Coffey
Student(s): Adam Drennan, Noah Meany, Danny Heddon

2519
Title: Does the racial inequalities in our society cause resentment in young adolescent Irish teens?
Overview: To investigate how racial discrimination affects the young adolescent Irish teens of ages 12-18+ by conducting a number of surveys from numerous schools in Ireland.
School: St Angela's
County: Waterford
Teacher: Mr Séamus Hearne
Student(s): Jessica Power, Natalie Ung

2520
Title: The Anti-Vaxxer Virus
Overview: In-depth investigation into the inductions of vaccines to society, pinpointing where, when, why and how they went wrong to aid induction of a COVID-19 vaccine.
School: Ursuline College

County: Sligo
Teacher: Mr Anthony Carolan
Student(s): Orla Devlin, Ciara Toolan, Aoibhin Mahar

2522
Title: Why is Goat Off the Menu? A Statistical Analysis of Attitudes to Consuming Goat Meat
Overview: Why is goat meat unpopular in Ireland? An investigation into why farmers don't produce goat and why people don't eat this healthy nutritious meat?
School: Clonakilty Community College
County: Cork
Teacher: Mr Patrick O Keeffe
Student(s): Oscar Kingston, Samuel Mikulka

2523
Title: "Assessing the impact of Second-Level education on key aspects of adolescents' life and development"
Overview: Our project aims to statistically and scientifically assess the impact of academic stress/pressure in 12-19 Year Olds under three main headings. Social, Mental and Physical.
School: The Abbey School
County: Tipperary
Teacher: Ms. Eavan Ryan
Student(s): Shane O'Connor, Liam Carew

2524
Title: Do phones affect the quality and duration of your sleep
Overview: We want to find out if using your phone before sleep affects the quality of your sleep
School: Castlecomer Community School
County: Kilkenny
Teacher: Miss Fiona Morrissey
Student(s): David Byrne, Jack Dowd, Luke Hamilton

2525
Title: A Dog's Purpose: A study of and novel solution to loneliness
Overview: Our project investigates social isolation and the benefits of pets on mental health; developing an app based solutionn to connect lonely people with dogs.
School: Dominican College
County: Dublin
Teacher: Miss Gemma Kirwan
Student(s): Emily O'Brien, Elizabeth Quigley

2526
Title: Can the stars tell you who you are?
Overview: Peculiar question, isn't it? Looking up & understanding something as complex as your personality or even your secrets. Can it be answered, let's find out...
School: Borrisokane Community College
County: Tipperary
Teacher: Ms Rachel Ahern
Student(s): Sinethemba Masina, Anga Singqandu, Buhlebethu Afriye

2527
Title: The teenage fixation on supplemented protein due to social media
Overview: We are doing an awareness project into the teenage fixation on supplemented protein and how social media is influencing this

School: Carrick-On-Shannon Community School
County: Leitrim
Teacher: Ms Sinéad Creegan
Student(s): Emily Molloy, Caoimhe Scollan

2528
Title: statistical analysis comparing stress levels in online learning versus in class learning
Overview: Our project investigates if online learning caused negative effects on teenagers mental health and stress levels compare to traditional in class learning
School: Coláiste Choilm
County: Cork
Teacher: Mr Paudie Scanlon
Student(s): Muireann Daly, Sarah Drummond

2529
Title: A Behavioural Analysis of Athletes in Team sports vs Individual Sports
Overview: Using the Myers- Briggs test to examine the tendencies seen in personalities of athletes in team sports and in individual sports.
School: Coláiste Choilm
County: Cork
Teacher: Mr Paudie Scanlon
Student(s): Paddy Mac Áodhagáin, David Cotter

2530
Title: An Investigation into the Juxtaposition of Society's Clashing Views on the Mental Health of the Youth
Overview: We plan to investigate the gap in understanding between the older and younger generation, when it comes to the mental health of the youth.
School: Sligo Grammar School
County: Sligo
Teacher: Miss Michelle Higgins
Student(s): Mia Sawai-Brandon, Anushka Pathak

2531
Title: A Statistical Analysis of Young People's Awareness and Attitude to COVID-19 in Ireland
Overview: We intend to investigate the awareness level and standard of education surrounding COVID-19 in young people of Ireland via surveys and statistical analysis.
School: Colaiste Dun an Ri
County: Cavan
Teacher: Mr Robert Lorenz
Student(s): Caleb Kiely, Binh Hanratty

2532
Title: The Science behind a Decision
Overview: Our project sets to layout how people's opinions, as well as influential factors from today's society have an influence on the decisions people make.
School: Loreto College
County: Dublin
Teacher: Ms Eimear Hourican
Student(s): Beth Thomas - Irwin, Aoife Ryan,

2533
Title: "How do you see me?" A statistical analysis of the influence of

appearance on how others perceive people's lifestyles.
Overview: We aim to investigate if certain aspects of someone's appearance affects their perceived income, occupation, personality, etc.
School: Coláiste Naomh Mhuire
County: Kildare
Teacher: Ms Naoise Gallagher
Student(s): Aisling Lawlor, Aoife Kearney

2534
Title: "Is rural Ireland a good environment for Creatives to flourish
Overview: We will investigate how rural communities perceive creative expression and original thinking. We want to know if a rural community empowers or stifles creative expression.
School: Carrick-On-Shannon Community School
County: Leitrim
Teacher: Ms Sinéad Creegan
Student(s): Daniel Azaharie, Kaelan Hanifa, Elí Holmes

2535
Title: An buntáiste é mata a dhéanamh trí gaeilge.
Overview: Tá muid ag iarradh fáil amach má bíonn níos mó tuisceant ar mata má bhfuil sé déanta trí gaeilge ó aois óg.
School: Coláiste Pobal Osraí
County: Kilkenny
Teacher: Ms Julia Coffey
Student(s): Ríona Crowley, Lia Ní Chonraí

2536
Title: How participation in extracurricular activities grades
Overview: Our project aims to find out how students participation in extracurricular activities affects their academic performance.
School: Tarbert Comprehensive School
County: Kerry
Teacher: Ms Joanne Mulvihill
Student(s): Cait Carmody, Megan Lynch

2537
Title: Quarantots; Behavioural changes in primary school children due to quarantine
Overview: An observational study on teacher's perceptions of behavioural changes in primary school children from senior infants to second class due to the COVID-19 quarantine.
School: Boherbue Comprehensive School
County: Cork
Teacher: Mrs Orla Dineen
Student(s): Ella WIllis, Katelyn Brosnan

2538
Title: A statistical analysis to explore family roles within the context of gender, age and well-being during covid-19
Overview: Our project aims to find out if gender stereotyping roles were evident during lockdown and enable the design of more effective interventions to address concerns.
School: Athlone Community College
County: Westmeath
Teacher: Miss Irene O'Sullivan
Student(s): Tara Hamilton, Áine Egan

2539
Title: An investigation into the effects of eating before sleep

Overview: To investigate whether eating food before sleep can affect quality of sleep
School: St Kieran's College
County: Kilkenny
Teacher: Mr David Hennessy
Student(s): Michael Cullen, James McEvoy, Patrick Foley

2540
Title: An Investigation into the Existence of a Correlation between Student and Parent Attitude to Maths, and the Impact on their resilience.
Overview: We will conduct a three stage investigation into correlation between parental attitude to maths and that of their child, and how this impacts resilience.
School: St. Anne's Secondary School
County: Tipperary
Teacher: Ms Jacqueline Hayes
Student(s): Jessica Brennan, Kate Power

2542
Title: Voting for Change: A comparative analysis of the Irish PR-STV voting system to determine if it contributes to political instability, gender imbalances and absence of democracy
Overview: Our project intends to investigate whether the PR-STV system adversely effects political stability+gender balance within the Irish Government in comparison to other democratic systems.
School: Ardscoil Ris
County: Limerick
Teacher: Mr Jack Corrigan
Student(s): Stuart Griffin, Charlie Goldsmith, Jacob Aylmer

2543
Title: A statistical analysis exploring the public's attitude towards the 'Resilience and recovery plan 2020-2021".
Overview: The purpose of our study is to analyse the views/opinions of the public based on the newly announced COVID-19 guidelines set out in September.
School: St. Louis Secondary School
County: Monaghan
Teacher: Mr Niall Mooney
Student(s): Donna Sherlock, Neidin Wall, Orla Sherry

2544
Title: A Statistical Investigation into Pitch Perception Ability and its Correlation to Musical Confidence and Personality Type
Overview: Measuring confidence in singing as a factor of ability to discern between increasingly similar notes in order to encourage participation in choirs or other groups.
School: Coláiste Choilm
County: Cork
Teacher: Mr Paudie Scanlon
Student(s): Senan Meehan, Luke O'Sullivan

2545
Title: Mob Mentality And Who Is More Susceptible.
Overview: We were inspired by a story our history teacher told us , involving the murder of Kitty Genovese. We were very interested in how all 38 bystanders did not react to the scene creating an inclined interest in the "bystander effect". We would like to research more into the effect of mob mentality and see the qualities of it, such as which genders and personalities are more susceptible using the Myers

Briggs personnality test and some simple social experiments. We were thinking of have someone perform strange actions while standing around with our class and see how they react. I have also seen a study on her mentality in sheep.
School: Castlecomer Community School
County: Kilkenny
Teacher: Ms Nora Henderson
Student(s): Petrina Roche, Holly Shirley

2546
Title: Are the Covid-19 restrictions affecting your learning in class?
Overview: We will be investigating at how the covid-19 restrictions might affect the students learning in class.
School: Coláiste Bhaile Chláir
County: Galway
Teacher: Ms Eleanor Nolan
Student(s): Emma Jackson, Michael Kavanagh

2547
Title: An investigation into the decrease in cinema attendees due to the over-reliance and availability of streaming services.
Overview: Our project aims to find if cinemas are on the decline and if streaming services will take over in the next few years.
School: St Brigids Vocational School
County: Galway
Teacher: Ms Sarah Clarke
Student(s): Filip Graf, Fionn Mullins

2548
Title: An Investigation Into Whether The Glamorization of Mental Disorders Online and In The Media Has Led to Misinformation and Self Diagnosis Among Teenagers
Overview: Our project aims to find if younger people glamorise the idea of mental illnesses and why self diagnosing mental disorders is common with younger generations.
School: Heywood Community School
County: Laois
Teacher: Miss Fiona Barry
Student(s): Sarah Haide, Sinead Uys, Aoife Carey

2549
Title: Investigating the Physical and Mental Trauma Experienced by Sexual Assault Victims
Overview: For our project , we are investigating the multiple effects that sexual assault has on teenagers - both physical and verbal.
School: Laurel Hill Secondary School FCJ
County: Limerick
Teacher: Ms Karen Kinnerk
Student(s): Bláithín Musgrave, Leah McNamara,

2550
Title: The link between eating disorders, self-esteem and anxiety
Overview: Our project investigates the different types of eating disorders and their links with self-esteem issues and anxiety within teenagers and adults.
School: Laurel Hill Secondary School FCJ
County: Limerick
Teacher: Dr Mary Frawley
Student(s): Ella Mason, Abbie Ryan

Social & Behavioural Sciences

RTÉ

2551
Title: Vertical Farming -The Future of Healthy Schools
Overview: Our project aims to determine whether it would be feasible and beneficial to practise vertical farming to help make our school a healthier place.
School: St. Brigid's Secondary School
County: Kerry
Teacher: Ms Miriam Malone
Student(s): Ali O' Donoghue, Eilís Mullane

2552
Title: The Correlation between the use of Fitness Trackers and their effects on our Mental Health/Wellbeing effects on
Overview: Our project analyses the positive and negative effects that the information, provided by a individuals fitness tracker, can have on their mental health and wellbeing.
School: Scoil Mhuire gan Smál
County: Roscommon
Teacher: Mr Padraig Harlow
Student(s): Abby Gooney, Ciara Merriman

2553
Title: Life in Lockdown: An investigation into the effects of homeschooling and returning to school on children with autistic spectrum disorders
Overview: An in depth look at the challenges of lockdown on students with autism in Cork encompassing behavioral changes, social interactions and online learning, if any.
School: St Mary's Secondary School
County: Cork
Teacher: Ms Jennifer Butler
Student(s): Keeva Murphy, Lilly Murphy

2554
Title: Investigating the attitudes and awareness of digital rights among people in our school community
Overview: Investigating the attitudes and awareness of digital rights among people in our school community
School: Scoil Mhuire Strokestown
County: Roscommon
Teacher: Ms Mairead Glynn
Student(s): Aine McEnroe, Chloe Nugent

2555
Title: How we can better integrate technology into the Irish Education System in light of the Covid-19 pandemic
Overview: Our project aims to create a way to integrate technology into the Irish Education System, through a series of tests and a multitude of surveys.
School: Athlone Community College
County: Westmeath
Teacher: Mr Niall Carty
Student(s): Clíodhna McNamara, Amna Mandal, Molly Mulvihill Wilkins

2556
Title: To Analyse Students Thoughts On Predicted Grading
Overview: We plan on researching student's opinions on predicted grading and how they felt about it as there the first leaving cert's to undergo this method.
School: Athlone Community College

County: Westmeath
Teacher: Mr Niall Carty
Student(s): Sheana Moran, Caitlin McDowell

2557
Title: Analysis of the ability of music to create immersion In Videogames
Overview: Our project analyses the impact of background music on the players' enjoyment and immersion into the videogames.
School: Athlone Community College
County: Westmeath
Teacher: Miss Irene O'Sullivan
Student(s): Rachel Bermingham, Caitlin Blom

2558
Title: A new way forward? Is online school as effective as traditional school?
Overview: An investigation into whether or not students and teachers believe online school during lockdown helped them more than attending normal school everyday.
School: Athlone Community College
County: Westmeath
Teacher: Ms Emma Finneran
Student(s): Ellen Healy, Hope Glynn, Maria Cases Pastor

2559
Title: What Are We Recycling?
Overview: To investigate the recycling knowledge of the youth in our community and create a digital platform to educate people on proper recycling practices.
School: Athlone Community College
County: Westmeath
Teacher: Ms Fiona Kelly
Student(s): Clodagh O' Brien, Nikka Campbell, Alisha Collins

2560
Title: Microtransactions and their effect on human behavior
Overview: We'll be looking at video game microtransactions and we'll see what their effects are on the human mind
School: Portlaoise College
County: Laois
Teacher: Mr Chris Gleeson
Student(s): Zara Murphy, Hristo Petrushkov, Timothy Drennan

2561
Title: Introducing "Memories"
Overview: We aim to highlight Alzheimer's and Dementia- We hope to inform people and introduce an app making life easier, for carers, family, & the suffering.
School: Coláiste Mhuire
County: Galway
Teacher: Mr Conor Delaney
Student(s): Oisín Nolan, Ben Coyle

2562
Title: A Machiavellian comparison between primary and secondary school students.
Overview: We wish to compare the Machiavellian tendencies in both primary and post primary students.
School: St Vincent's Secondary School
County: Louth

Teacher: Mr John White
Student(s): Ciara Gorham, Molly Murphy

2563

Title: Body Image Blues in Sport
Overview: We plan on investigating how body image impacts people playing sport and if lock-down during Covid-19 had a positive or negative impact on this issue.
School: Scoil Mhuire Kanturk
County: Cork
Teacher: Mr Aidan Noone
Student(s): Ciara Green Linehan, Gemma Healy

2564

Title: Does mindfulness positively effect exam students?
Overview: Investigating whether mindfulness has a positive effect on exam students, specifically third years. Our project falls under the Social and Behavioural category.
School: Loreto Secondary School
County: Kilkenny
Teacher: Ms Laura Heffernan
Student(s): Ella Delahunty, Lauren East, Abbie Coughlan

2565

Title: The effect of technology on social interactions
Overview: in our project we aim to see the negative impact technology has on social interactions between people by monitoring our families technology use at meals.
School: Ardscoil Phadraig
County: Longford
Teacher: Ms Alice Magan
Student(s): Aoife Reilly, Katelyn Farrell

2566

Title: Physical Activity and Productivity
Overview: We are doing our project on the affects of physical activity on productivity. We hope to raise awareness on the importance of physical activity.
School: Ardscoil Phadraig
County: Longford
Teacher: Ms Alice Magan
Student(s): Cora Murphy, Funmi Talabi, Elle Lynn

2567

Title: Understanding the positive effects of Lockdown
Overview: People have a negative mindset towards lockdown, we will closely examine lives during lockdown to show that there are multiple positive outcomes.
School: Presentation College
County: Carlow
Teacher: Miss Claire Brennan
Student(s): Megan Hosey, Jade Ellis, Clare Miller

2568

Title: 'A statistical investigation into the prominence of dysmorphic body image issues amongst second level students and the contrast between each gender.'
Overview: Our project aims to investigate the prominence of body image issues amongst second-level students, both sexes, and how said issues have potentially enlarged over Covid-19.
School: St. Louis Secondary School

County: Monaghan
Teacher: Mr Niall Mooney
Student(s): Orla Finlay, Eve McNally

2569

Title: SOCIAL MEDIA: a shattered body image; Is social media and 'diet culture' influencing a new wave of disordered eating
Overview: Our project aims to investigate and spark a conversation about social media's definite role in the development and normalization of eating disorders among teens.
School: Athlone Community College
County: Westmeath
Teacher: Ms Fiona Kelly
Student(s): Marsha Neilan, Leah Harney, Katie Murray

2570

Title: The Effects of ASMR on Stress Levels and Loneliness in Teenage Girls.
Overview: Using surveys, measuring heart rate and body temperature to see if ASMR has an effect on stress levels and loneliness in teenage girls aged 12-18
School: Loreto Secondary School, Balbriggan
County: Dublin
Teacher: Mr Brian Higgins
Student(s): Isabella Watts, Hiba Shahzad

2571

Title: Is virtual the new reality? An investigation into opinions on virtual events
Overview: This project looks at the opinions that students have about participating in, their experiences of and the effectiveness of virtual events.
School: St. Mary's College
County: Galway
Teacher: Mr Anthony Carey
Student(s): Dan Carey, Cathal O'Grady-Corcoran, Tom Browne

2572

Title: the psychology effects of prison and why the prison system needs to be changed to stop recidivism
Overview: Our project is on how prison effects your mental health and how we need to bring in special programs to stop people re offending
School: Ardgillan Community College
County: Dublin
Teacher: Ms Laura Sheahan
Student(s): Sarah Keane, Robert Jones

2573

Title: an gcuireann maisc isteach ar chumarsáid i measc déagóirí?
Overview: Tá súil againn inár dtionscadal fáil amach faoi na bealaí éagsúla a théann púicíní i bhfeidhm ar chumarsáid agus idirghníomhaíochtaí sóisialta déagóirí.
School: Coláiste Íosagáin
County: Dublin
Teacher: Mr Maitiú Ó Longaigh
Student(s): Kim Geraghty, Nessa Ní Éidhneáin, Maudy Ní Chonaill

2574

Title: Does device usage affect short term memory?
Overview: To find out if device usage affects short term memory, what age group is most affected and spread awareness on the subject.
School: Loreto Secondary School
County: Kilkenny
Teacher: Ms Maureen Hand
Student(s): Alexia Albertin, Hannah Kehoe

2575

Title: Mixed VS single Sex PE Lessons
Overview: Our project aims to find which class environment students perform better in either mixed or single sex PE lessons.
School: Woodbrook College
County: Wicklow
Teacher: Ms Siobhan Synnott
Student(s): Michelle Dolores, Abhirami Santhosh Kumar, Ruby Roche

2576

Title: The Mind Of A Schizophrenic
Overview: In this project we will be discussing and exploring the effect of schizophrenia on the mind.
School: Athlone Community College
County: Westmeath
Teacher: Mr Gavin Beirne
Student(s): Gurpreet Kaur, Cathy Kelly, Kaitlyn Kelly

2577

Title: An investigation on mask etiquette amongst girls and how it is influenced by social factors.
Overview: Our aim is to analyse the differences in mask wearing etiquette between teenage girls of different ages and the social factors that affect them.
School: Loreto Secondary School, Balbriggan
County: Dublin
Teacher: Ms Chloe White
Student(s): Jane Oakley, Eliza Monaghan

2578

Title: Alcohol and Mental Health
Overview: The aim of our project is to find out the affects alcohol has on someone's mental health
School: Scoil Mhuire Kanturk
County: Cork
Teacher: Mr Aidan Noone
Student(s): Rory O'Brien, Aaron O'Sullivan, Kyle Keohane

2579

Title: Does where you live affect your IQ?
Overview: The purpose of this investigation is to determine the factors within an area which supports higher education and ultimately a higher IQ level.
School: Bandon Grammar School
County: Cork
Teacher: Ms Shóna Hayes
Student(s): Ciara Lynch, Olivia Crowley, Leah Parker

2580

Title: Would exposure to a virtual interactive story have an effect on how people perceive immunisation?
Overview: To investigate the effect of VIS in comparison to videos or written text in an attempt to raise awareness about the importance of immunization.
School: Loreto Secondary School, Balbriggan
County: Dublin
Teacher: Mr Brian Higgins
Student(s): Adriana Ciot, Lily Anderson, Preethigaa Kumaresan

2581

Title: A systematic investigation into the affects that genres and characteristics of musical styles have on the habits and techniques of drivers. Does music control our steering wheels?
Overview: What affect does listening to different music genres or pieces with specific music characteristics have on our driving techniques and response times?
School: St Mary's Secondary School
County: Dublin
Teacher: Ms Bronwyn Mulvey
Student(s): Catherine O'Brien Cox, Lana Nolan, Paige Vance

2582

Title: Are people with a strong general belief in conspiracy theories, less likely to have confidence in the safety and efficacy of vaccinations?
Overview: Our project is aimed at investigating the relationship between people's beliefs in conspiracy theories and their confidence in vaccinations.
School: Loreto Secondary School, Balbriggan
County: Dublin
Teacher: Mr Brian Higgins
Student(s): Nikolet Serbezova, Sophie O'Leary, Natalie Arachchige

2583

Title: The Impact Of Covid-19 On The Lives Of People In Our School Community
Overview: The aim of this study is to ascertain how Covid 19 and lockdown has impacted the lives of the people in our school community.
School: Castlerea Community School
County: Roscommon
Teacher: Ms Yvonne Hanbury
Student(s): Maegan McGourty, Leah Fitzpatrick

2584

Title: The overtraining of teenage boys
Overview: : Our project aims to educate people on the consequences of overtraining teenage boys and help prevent it
School: Gonzaga College
County: Dublin
Teacher: Mr Stephen McGroggan
Student(s): Eoin Sadlier, Ben Delaney

2585

Title: An bhfuil muid Éire mar thír andúilmhear le feoil

Overview: Déanann tionscadail s'againn iniuche ar an dúil atá ag muintir na hÉireann san fheoil agus an dochair atá a dhéanamh don timpeallacht da mhar.

School: Coláiste Ailigh

County: Donegal

Teacher: Mr Shane Ó Breacáin

Student(s): Iseult Ní Mhathúna, Fionnán Ó Muireadhaigh,

2586

Title: Inspiring future scientists

Overview: We want to get children interested in a career of science and see if the parents find it easier to help teach them during quarantine.

School: Dunshaughlin Community College

County: Meath

Teacher: Dr Claire Tuttlebee

Student(s): Andrew Brady, Andrei Birsan, Naoise Clarke

2587

Title: How is your Child Feeling: A Study of the Mental Wellbeing of Pre-School Childen.

Overview: A study investigating the feelings, emotions, and mental wellbeing of pre-school children over 5 weeks monitoring there behaviour and carrying out different activities.

School: Athlone Community College

County: Westmeath

Teacher: Mr Gavin Beirne

Student(s): Róisín Kenny, Shauna Loftus, Aishling Mannion

2588

Title: Should Sign Language be mandatory in schools?

Overview: Our project is based around the awareness of sign language, we chose this topic due to the lack of discussion of sign language in schools.

School: St Mary's Secondary School

County: Cork

Teacher: Ms Shannen Foley

Student(s): Nicola Dromey, Mia Normoyle, Ciara Manning

2589

Title: Living alongside Covid-19, which generation is coping best?

Overview: We are conducting a study on living alongside Covid-19. We hope to assess each generation of society's ability to cope with this new reality.

School: Skibbereen Community School

County: Cork

Teacher: Ms Mags Breen

Student(s): Anna Collins, Niamh Connolly, Gráinne Connolly

2590

Title: A Theory About Conspiracy Theories

Overview: In this project we aim to find out more about conspiracy theories and fake news. We will be looking at propaganda and the media

School: Youthreach Navan

County: Meath

Teacher: Ms Sharon Maher

Student(s): Max Chmieliauskas, Julian Maranizzi, Raul Moldovan

2591

Title: Are we being deceived by thinking dairy milk alternatives are healthier than dairy milk.

Overview: In our project we will be investigating why dairy milk alternatives have become very popular in todays society.

School: Carrick-On-Shannon Community School

County: Leitrim

Teacher: Ms Sinéad Creegan

Student(s): Hannah Rodrigues, Fleur Burns, Nicole Gallagher

SENIOR GROUP

2600

Title: Tips to refrain from going insane (To research and test the physiological impact of stress relievers in a post stress environment)

Overview: We will place students under stress and examine their stress levels. Then, using selected stress relievers we will test to see which is most effective.

School: Coláiste Choilm

County: Cork

Teacher: Mr Paudie Scanlon

Student(s): Niamh McDonagh, Aine Creedon, Sinead Herlihy

2601

Title: Does Covid-19 behave differently in a range of distinct socioeconomic areas around Ireland?

Overview: Investigation whether Covid-19 has a higher case/death ratio per capita in different socioeconomic areas in Ireland.

School: Castlecomer Community School

County: Kilkenny

Teacher: Mr James Power

Student(s): Reuben Colman, Adam Byrnes, Mikey Evison

2602

Title: The knock on effect

Overview: A 800 person survey to analyse the correlations that exist between head trauma and the onset of psychological disorders.

School: Cashel Community School

County: Tipperary

Teacher: Mr TJ Quinn

Student(s): Ava Abbott, Megan Kirby

2603

Title: Use of the Health Belief Model to investigate elements informing young peoples attitudes towards Covid-19 and subsequent impact on response to restrictions and vaccine uptake.

Overview: An investigation into young peoples attitudes towards Covid-19 and subsequent impact on response to restrictions and vaccine uptake levels.

School: Colaiste Treasa

County: Cork

Teacher: Ms Joanne Corkery

Student(s): Isobel Hynes, Ava Hynes

2604

Title: Investigating the impact of a single teaching input on maths anxiety in primary school pupils

Overview: This project aims to measure the impact on levels of maths anxiety of teaching children to value mistakes in maths.

School: Home School

County: Dublin
Teacher: Ms Geraldine Grant
Student(s): Chloe O'Callaghan, Kyira O'Callaghan, Holly Reddin

2606

Title: TikTok AfterShock
Overview: Our project aims to assess if specific use of "TikTok" has had a negative impact on teenagers' body image during the lockdown period.
School: Jesus & Mary Secondary School
County: Galway
Teacher: Mr Kenneth Kennedy
Student(s): Cliodhna McDonald, Emma Dillon, Sarah Casserly

2607

Title: Smart learning for smart people
Overview: We want to prove the usefulness of smartphones as a teaching and learning tool during lockdown. In particular at marginalised and third world students.
School: Youthreach Navan
County: Meath
Teacher: Ms Sharon Maher
Student(s): Callum Gallagher, Oliver Greene, Amber Brytus

2608

Title: Ending Discrimination
Overview: Our project aims to show that having a sense of belonging, knowing your origins and having an understanding of history can help end discrimination
School: Youthreach Navan
County: Meath
Teacher: Ms Sharon Maher
Student(s): Eileen Marazzini, Alex Dixon, Lauren Englishby

2609

Title: contact tracing through QR codes
Overview: the project we are doing aims to create a faster alternative to tracing lost items using QR codes in schools
School: Loreto Secondary School
County: Tipperary
Teacher: Ms Emma Griffin
Student(s): Caoimhe O'Brien, Lauren Hurley

Looking for a specific project?

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Biological and Ecological Sciences	Social and Behavioural Sciences
1100 - 1605	**2100 - 2609**

Chemical, Physical and Mathematical Sciences	Technology
3100 - 3607	**4100 - 4609**

JUNIOR INDIVIDUAL

3100
Title: A Chemical alternative to Google Maps
Overview: Using Marangoni Effect to solve town planning and determine the shortest route between two points whilst navigating obstacles aided by chemistry as opposed to algorithms.
School: Desmond College
County: Limerick
Teacher: Mr Donal Enright
Student(s): Cathal Ryan

3101
Title: Ag Bréagnú Aischuisíocht Reitr sa Scriosán Candamach Rogha Mhoillithe
Overview: Táim ag chuir argóint ar aghaidh i gcoinne an teoric aischuisíocht reitr, agus taispéant nach bhuil mistéir faoin scriosán candamach rogha mhoillithe gan aischuisíocht reitr.
School: Gaelcholáiste Charraig Uí Leighin
County: Cork
Teacher: Mr. Rónán Ó Muirí
Student(s): Dylan Ó Múirí

3102
Title: One small carbon free step for man one giant eco friendly leap for mankind
Overview: I wish to work to decrease my carbon foot print in ways that concern school and travel to school.
School: Coláiste Muire Crosshaven
County: Cork
Teacher: Mr Brian Kavanagh
Student(s): Liam O'Leary

3103
Title: are casein based plastics a viable, sustainable and eco friendly alternative to oil based plastics?
Overview: an investigation to determine whether plastics made from milk protein (casein) would be a suitable alternative to traditional oil based ones.
School: Kinsale Community School
County: Cork
Teacher: Mr Shaun Holly
Student(s): Aengus Price

3104
Title: Why are the rocks red in Australia?
Overview: This project seeks to establish why rocks and soil are red in Australia, using a modified chemical technique to demonstrate various ionic forms of iron.
School: Gonzaga College
County: Dublin
Teacher: Mr Stephen McGroggan
Student(s): Harry O'Leary

3105
Title: How Would Using Non-Euclidean Paper Transform Traditional Origami Models?
Overview: Based on non-Euclidean geometry, I will: * fold origami models to create novel designs from non-Euclidean paper, * create non-Euclidean shapes using Euclidean/flat paper.
School: St Andrew's College

County: Dublin
Teacher: Ms Emma Buckley
Student(s): Aloïs Pissonneau

3106
Title: How to determine the ideal length of a skipping rope for skipping
Overview: Three lengths of rope will be used. These are determined by the individuals leg length. 11/2 leg length, 2 leg length, 3 leg length
School: St Joseph Of Cluny
County: Dublin
Teacher: Ms. Naomi Torpey
Student(s): Keela Murphy

3107
Title: An investigation into the differences in height of adjoining clints in Limestone pavement in the Burren
Overview: I am looking in detail at the difference in height of adjoining clints and seeing if prevailing wind may contribute to their formation.
School: Mary Immaculate Secondary School Lisdoonvarna
County: Clare
Teacher: Mr John Sims
Student(s): Oisín Jackson

3108
Title: How Does the Temperature of a Tennis Ball Affect its Bounce?
Overview: I will be heating tennis balls and cooling them, dropping them and seeing which bounces the highest.
School: Sandford Park School Ltd
County: Dublin
Teacher: Ms Katherine Gray
Student(s): Hugo Faulkner

INTERMEDIATE INDIVIDUAL

3200
Title: Cards, the maths behind it
Overview: I am going to find out the maths and probability behind winning a game of cards(gofish) and which cards you should look for when playing.
School: St. Joseph's Secondary School
County: Meath
Teacher: Ms Fiona Leavy
Student(s): Alice Harford

3201
Title: Sensor Data in a Time of Coronavirus: using environmental factors to generate a warning system for indoor spaces when safe capacity is exceeded.
Overview: An investigation that explores the possibility of using CO_2 levels to determine when an indoor space is approaching or exceeding safe capacity during coronavirus.
School: Scoil Mhuire Community School
County: Kildare
Teacher: Ms Aoife Jenkins
Student(s): Priya Evans

3202
Title: Will Several Different Levels of Exercise Effect Your Reaction Time

Overview: I will test to see if different, high and low level intensity exercises will effect my reaction time for the better or for the worse.
School: Marist College
County: Westmeath
Teacher: Ms Georgina Clear
Student(s): Andrew Ruane

3203
Title: An investigation into the differences in contaminant levels in water from old and new pipe work systems in comparison to the levels at its original source
Overview: Investigating the differences in water contaminant levels at source and at consumption of an old and new dwelling. while identifying possible causes I.e ageing pipes/environment
School: Scoil Mhuire Community School
County: Kildare
Teacher: Ms Aoife Jenkins
Student(s): Lavinia Waldron

3204
Title: Nettles - the sustainable solution to fast fashion
Overview: Nettle wool and nettle fibre can be used as a biodegradable alternative to polyester in todays fast fashion.
School: St Kevin's Community College
County: Wicklow
Teacher: Ms Ciara Flanagan
Student(s): Orlaith Ni Ghallchobhair

3205
Title: Is Sheldon Right?: An Analytical Deconstruction of Different Forms of String Theory and Their Applications As Part of A Unified Theory.
Overview: My project is a mathematical study of different forms of string using existing experimental evidence.
School: St Andrew's College
County: Dublin
Teacher: Ms Emma Buckley
Student(s): Matthew O'Regan

3206
Title: How Do Quantum Phenomena Give Rise to the Reality We Know?
Overview: Theoretical Physics: To investigate how quantum properties such as superposition and the wave function correlate with classical mechanics; attempting to merge the two different realities.
School: St Kieran's College
County: Kilkenny
Teacher: Mr David Hennessy
Student(s): Conor Fitzmaurice

3207
Title: The Shooting Technique of Steph Curry
Overview: I wish to analyse Steph Curry's shooting technique in order to replicate it and investigate do these elements improve ones shhoting technique.
School: St Aloysius School
County: Cork
Teacher: Ms Katie O'Donovan
Student(s): Sinead O Leary

3208
Title: Investigation into the relationship between the temperature of a liquid and the sound it makes
Overview: Spectral plots of audio recordings, of liquids, at different temperatures, being poured into containers, will be examined to investigate a relationship between frequency and temperature.
School: Our Lady Of Mercy Secondary School
County: Waterford
Teacher: Ms Maria Grant
Student(s): Mia Dunphy

3209
Title: what material insulates hot water the best?
Overview: The goal of my project is to research into the insulating properties of various materials and carry out experiments to back up my reasoning.
School: Leixlip Community School
County: Kildare
Teacher: Ms Catherine Holohan
Student(s): Meghan Castaneda

SENIOR INDIVIDUAL

3300
Title: Using Machine Learning to Improve Numerical Weather Prediction
Overview: An open-source piece of software that leverages machine learning to improve numerical weather prediction.
School: Pobalscoil Inbhear Scéine
County: Kerry
Teacher: Ms Sarah Abbott
Student(s): Conor Casey

3301
Title: A Comparative Study of the Thermal Properties and Effectiveness of Various Tea Cosies
Overview: Are tea cosies worth the effort? Which tea cosies keep tea hottest for longest? Are they effective? Will they save energy in the long run?
School: St Aloysius School
County: Cork
Teacher: Ms Katie O'Donovan
Student(s): Sarah Lane

3302
Title: Investigating the Effectiveness of Face Masks
Overview: This project investigates the effectiveness of face masks that are being used as PPE by the general public and designing and testing more effective alternatives.
School: St Mary's College
County: Londonderry
Teacher: Mrs Ann Blanking
Student(s): Maeve Stillman

3303
Title: How The Sound Changes When Filling Up a Bottle
Overview: Use physical methods to analyze changes in sound(mainly the frequency) when filling bottles with water and how the parameters in the system effects the change.
School: St Andrew's College

County: Dublin
Teacher: Ms Emma Buckley
Student(s): Haoyang Jiang

3304
Title: Investigating the amount of plastic in face masks, gloves and hand sanitiser bottles used for protection against COVID-19
Overview: Disposable face masks, gloves and sanitiser bottles when not disposed of properly enter the environment and cause problems. Their plastic content is investigated.
School: St Mary's College
County: Londonderry
Teacher: Mrs Ann Blanking
Student(s): Hollie Harkin

3305
Title: Comparing the vulnerability of beads formed by entrapping yeast cells by cross-linking sodium alginate and different masses of gelatine, with CaCl2 to chelation by EDTA
Overview: I aim to compare the vulnerability of calcium alginate beads used to entrap yeast cells, made using different masses of gelatine, to chelation by EDTA.
School: St Andrew's College
County: Dublin
Teacher: Ms Emma Buckley
Student(s): Noemie Leeder

3306
Title: A Mathematical investigation of regular and semiregular tessellating patterns
Overview: A mathematical investigation of symmetry transformations that produce tessellating patterns.
School: Our Ladys College
County: Louth
Teacher: Miss Frances O'Regan
Student(s): Peidi Li

3307
Title: An Experiment to Investigate the Effects of Different Temperatures on Magnets in an Eddy Current
Overview: A magnet of varying temperatures will be dropped through a tube of copper, the time it takes for the magnet to fall through the tube.
School: Jesus & Mary Secondary School
County: Sligo
Teacher: Ms Fiona McLoughlin
Student(s): Stephen Connolly

3308
Title: Reducing CO2 levels in the atmosphere using renewable energy
Overview: The aim of my project is to reduce CO2 levels in the atmosphere by chemical means using renewable energy.
School: Meánscoil na mBráithre Criostaí
County: Kilkenny
Teacher: Mr David O' Heney
Student(s): Eoin Bourke

3309
Title: Cad é an dóigh is fearr chun feag a dhéanamh do na píobáí uilleann?
Overview: An bhfuil sé (1) níos fearr & (2) níos saoire an feag a dhéanamg amach as plaisteach, sprús nó arundo donax?
School: Coláiste Ailigh
County: Donegal
Teacher: Mr Shane Ó Breacáin
Student(s): Cuan Ó Bróithe

3310
Title: An bhfuil tú abalta an méid siúcra sa fuil fuine ag baint úsáid as a seile in áit fuil?
Overview: An dtugann speictriméadracht seile eolas cruinn go leoir chun áit fuil a ghlacadh mar fhoinse anailíse?
School: Coláiste Ailigh
County: Donegal
Teacher: Mr Shane Ó Breacáin
Student(s): Evin Ó'Domhnaill

JUNIOR GROUP

3400
Title: Testing the physics of sliotars
Overview: In our project we're testing out different brands af sliotars
School: Colaiste An Phiarsaigh
County: Cork
Teacher: Mr Caoimhín Ó Buachalla
Student(s): Ronan De Barra, Aoife Mullins, David Murphy

3401
Title: Shining A Light On School Coronavirus Cleaning Protocols
Overview: We are investigating how effective cleaning protocols are in our school using glow germ and UV light, in order to design a cleaning information pack.
School: Coláiste Chiaráin
County: Limerick
Teacher: Ms Edel Farrell
Student(s): Seán O'Sullivan, Taha Njie

3402
Title: The effect of light Frequency on background radiation in a cloud chamber
Overview: Does the Frequency of light have any effect on the movement of particles in a cloud chamber?
School: Coláiste Phádraig
County: Dublin
Teacher: Ms Jacqueline Farrell
Student(s): Joel Emmanuel, Rohit Tummala

3403
Title: Measuring the speed of the wind: Why does the wind blow?
Overview: We explore/explain how the wind blows and how it changes from soft-strong winds. Then, we measure the speed of the wind using an anemometer.
School: Our Ladys School
County: Dublin
Teacher: Mr Martin Farrelly
Student(s): Amy McNamee, Cliodhna Foley

3404
Title: Ironing out the Water Quality Issues on Irish Pig Farms
Overview: Investigating the phytoremediation of water sources containing elevated iron levels using native water plants.
School: Moate Community School

County: Westmeath
Teacher: Ms Mairead Cusack
Student(s): Mia Shellam, Aine Macken

3405
Title: Need For Speed
Overview: testing if you run faster with different drinks [water, monster and lucozade]
School: Pobalscoil Inbhear Scéine
County: Kerry
Teacher: Ms Sarah Abbott
Student(s): Barry Fitzsimons, Jack O'Sullivan, Ollie Shea

3406
Title: Speedy Compostables
Overview: We have investigated if compostable bags compost better with the addition of vinegar or baking soda to the organic matter.
School: St. Joseph's Secondary School
County: Clare
Teacher: Ms Catherine Clair
Student(s): Zoe Howell, Lucy McDonnell

3407
Title: Let's Make a Deal! a statistical analysis of the Monty Hall Dilemma
Overview: We want to investigate the veridical paradox that is the Monty Hall Dilemma and test the maths in a real life game scenario.
School: Scoil Mhuire Strokestown
County: Roscommon
Teacher: Ms Mairead Glynn
Student(s): Aoife Burke, Adam Murphy, Emma Creighton

3408
Title: A chemical analysis of the alcohol content in hand sanitisers using chromatography
Overview: We are testing the efficiency of different hand sanitizers by comparing their rF values from paper chromatography.
School: Loreto Community School
County: Donegal
Teacher: Mrs Roisin Coyle
Student(s): Keeley Boyle, Aoibheann Boyle

3409
Title: A Mathematical model to help improve rowing technique
Overview: We are going to compare the mathematical differences between a beginner and an intermediate rower
School: Bandon Grammar School
County: Cork
Teacher: Mr Stephen McLaughlin
Student(s): Tadhg O' Conchúir, Thomas Doran

INTERMEDIATE GROUP

3500
Title: "Using magnets to help prevent heart attacks"
Overview: To investigate if magnets can have a positive effect on blood, in particular, to reduce viscosity, thus reducing the potential risk of heart problems.
School: Desmond College
County: Limerick
Teacher: Mr Donal Enright

Student(s): Ethan Kirwan, Jack Kelly

3501
Title: Using SIR Modelling To Predict The Spread Of COVID-19
Overview: Using Susceptible, Infectious and Recovered (SIR) Models to predict the spread of COVID-19 with and without Safety Measures e.g masks and social distancing.
School: Marist College
County: Westmeath
Teacher: ms Julie Coyle
Student(s): Conor McCarthy, Edward Cleary, Conor Gill

3502
Title: Which candle burns longer homemade or store bought
Overview: We are going to make a candles,and test which ones are worth your money and time.
School: Colaiste An Phiarsaigh
County: Cork
Teacher: Mr Caoimhín Ó Buachalla
Student(s): Rachel Ní Uaine, Isabella Foong

3503
Title: The Development of Fake Tan On Our Skin
Overview: For this science project we are finding out in a group how fake tans and different moisturises benefit the application of tan on the skin.
School: Loreto Secondary School
County: Tipperary
Teacher: Ms Ciara Tyrrell
Student(s): Clodaigh O'Sullivan, Laura Bates, Lauryn O'Flynn

3504
Title: Does the temperature of where a battery is stored affect the electric current?
Overview: Many people argue about where to store batteries so it does affect the electric current, so we want to find out what is the most efficient temperature to store batteries.
School: St Mary's Secondary School
County: Cork
Teacher: Ms Shannen Foley
Student(s): Amanda Marcinkevica, Charmaine Ngwenya, Elina Wanitschke

3505
Title: Quick Shot
Overview: An Investigation into Potential and Kinetic Energy in Archery
School: Our Lady's Secondary School
County: Monaghan
Teacher: Mr Kevin Nolan
Student(s): Pauric Mc Bride, Oisín O'Neill

3506
Title: The Perfect Sideline?
Overview: We wish to investigate the factors which influence the execution of a successful sideline cut in hurling/camogie. Eg player's height, hurl weight, distance from sliotar.
School: Loreto Secondary School
County: Kilkenny
Teacher: Mr Brendan Williams
Student(s): Hannah Coyle Twomey, Cáit Healy

3507
Title: Bamboo vs ash hurleys
Overview: we are locating at the difference between ash and a more sustainable alternative hurl made from by conducting numerous tests
School: Cistercian College
County: Tipperary
Teacher: Mr Jim McManus
Student(s): Charlie Naughton, Billy Kelly, Adrian Dunne

3508
Title: An investigation into the physical skill level of Fifa-18 players to show if one can excel in soccer using the R-statistical package.
Overview: We plan to build a model to investigate the factors affecting the physical skill level of FIFA-players.We will build the model using the R-Statistical package.
School: Scoil Mhuire gan Smál
County: Roscommon
Teacher: Mr James McLoughlin
Student(s): Ailbhe Donnellan, Chloe Donoghue

3509
Title: A Spatial Analysis of Light Pollution and its effects in Tipperary town and the Rural Environment.
Overview: Light Pollution and its effects in Tipperary Town and the Rural Environment, looking at the effects of Lunar Orbits, Seasons, Cloud Cover and Weather Conditions.
School: St. Anne's Secondary School
County: Tipperary
Teacher: Mr Patrick Kivlehan
Student(s): Ria O Grady, Sarah Ryan, Caitlin Byrnes

3510
Title: An Investigation into the Forces which affect the Safe Motion of Automotive Vehicles on Bends and Roundabouts on Irish National Roads.
Overview: We are measuring Coefficients of friction, Superelevation and radius of bends,to investigate the balancing forces which act to keep a vehicle safely on the road.
School: St. Anne's Secondary School
County: Tipperary
Teacher: Mr Patrick Kivlehan
Student(s): Oliwia Czesnikowicz, Grace Fitzgerald, MuiNay Gleeson

3511
Title: Does Health Literacy (HL) Influence Physical Literacy (PL)
Overview: Our project aims to examine HL and PL, survey students on both and use their responses to investigate if there is a correlation between them.
School: St. Anne's Secondary School
County: Tipperary
Teacher: Ms Martina Walsh
Student(s): Aileen O'Farrell, Helena Cotter

3512
Title: An Investigation into the effectiveness of Copper Door Handles in Hospitals, Schools and Care Homes as an Infection Control Measure.
Overview: To Perform microbial analysis on intrinsically active Anti-microbial copper surfaces and on non-copper surfaces such as Aluminium and Steel, using internationally recognised industrial standards.
School: St. Anne's Secondary School
County: Tipperary
Teacher: Mr Patrick Kivlehan
Student(s): Ava O'Sullivan, Aine Carew, Ellie Cremins

3513
Title: The effects hand sanitizer has on different materials
Overview: Testing the effects that hand sanitizer has got on different materials.
School: St Bricin's Vocational School
County: Cavan
Teacher: Ms Anne-Marie Fay
Student(s): Sean Hegarty, Callum O'Brien, Diego Fabelo Marrero

3514
Title: The Effectiveness of Safety Procedures Against Covid-19
Overview: To examine the safety procedures carried out to help stop the spread of COVID-19 virus (corona virus).
School: Our Ladys School
County: Dublin
Teacher: Mr Martin Farrelly
Student(s): Hannah Molloy, Lucy Somers

3515
Title: Basketball play on 2 different surfaces
Overview: We are going to test basketball play on 2 different surfaces(indoors and outdoors) to see which gives the best advantage.
School: Coláiste Bhaile Chláir
County: Galway
Teacher: Ms Eleanor Nolan
Student(s): Joy Erugo, Michael Fahy, Elisha Bohan

3516
Title: Are our cleaning habits affecting our household surfaces.
Overview: An investigation to determine if the persistent use of cleaning products such as bleach and vinegar affect household surfaces such as wood and laminate.
School: Bailieborough Community School
County: Cavan
Teacher: Ms. Natalie Kinghan
Student(s): Daniel Foran, Luke Delaney, Nikolay Hlyavyn

3517
Title: Which face covering is more effective
Overview: We're going to try and see which face covering is better
School: Cistercian College
County: Tipperary
Teacher: Ms Jennifer Denny
Student(s): Evan Fitzpatrick, Kian Fallon, Michael Metcalfe

3518
Title: Which tennis racket is most efficient?
Overview: We used different tennis rackets to test Speed, Distance and durability
School: Cistercian College
County: Tipperary
Teacher: Ms Jennifer Denny
Student(s): Michael O'Sullivan, Diego Milla, Ignacio Gonzalez

3519
Title: That's a Moiré!
Overview: An investigation into Moiré patterns and their potential uses.
School: Presentation Secondary School
County: Tipperary
Teacher: Ms Dearbhla Neville
Student(s): Julie Butler, Niamh O'Sullivan

3520
Title: Smart protective sporting gear
Overview: Create agile, and light, protective gear for athletes, that only reacts when met by impact, by creating dilatant polymers and impregnating fabrics with them.
School: Nord Anglia International School Dublin
County: Dublin
Teacher: Dr. Florian Maisonneuve
Student(s): Chiara Lisa Carra, Elysia O'Leary

3521
Title: What's the Most Efficient Way to Finish a Lollipop?
Overview: Our project aims to find the most efficient way to lick a lollipop, by testing factors such as heat, pH, and amylase concentration.
School: Rockbrook Park School
County: Dublin
Teacher: Mr Cody Preston
Student(s): Earl John Villanueva, Joseph Jacob

3522
Title: An investigation into the effects of combined heated air currents of different temperature on the flight dynamics on a badminton shuttlecock
Overview: Is the flight dynamics of badminton shuttlecocks effected by air temperature? What effects does this have on the speed and distance traveled by shuttlecocks?
School: St Vincent's Secondary School
County: Louth
Teacher: Mr John White
Student(s): Alannah Voigt, Sarah Carey

3523
Title: An investigation into how the wearing of face coverings by teachers in classroom settings affects the sound levels at diffrent positions in diffrent classroom settings
Overview: An investigation into the acoustic analysis of how sound levels (decibels) are affected by a teacher wearing a face covering in a classroom setting.
School: St Vincent's Secondary School
County: Louth
Teacher: Mr John White
Student(s): Kayla Darby, Aoife Mc Quillan

3524
Title: The Physcis Behind Synchronised Swimming
Overview: We are going to be investigation how newton's law of motion can affect synchronised swimming and the motions swimmers use.
School: St Aloysius School
County: Cork

Teacher: Ms Katie O'Donovan
Student(s): Eve Knowles, Sara Khorchani, Leah Cotter

3526
Title: The implication of modern materials affecting force and how it contributes to gameplay
Overview: Comparing different materials of hockey sticks such as wood and carbon fibre and the resulting force applied to the hockey ball.
School: Our Ladys School
County: Dublin
Teacher: Mr Martin Farrelly
Student(s): Caoilin Dunne, Beatrice Rath

3527
Title: Investigating Salt Water Batteries
Overview: Our project aims to investigate the amount of electrical energy that can be harnessed by using salt water.
School: St Kieran's College
County: Kilkenny
Teacher: Mr David Hennessy
Student(s): Kevin O'Connor, Adam Noonan, Oisín Mealy

3528
Title: Solar Powered Chemistry – Study Chemical Reaction Rates in Ultraviolet Beads
Overview: We will research about how effective different brands of protective equipment actually protect us from UV Rays. We also look at the benefits of wearing a 'UV Bead Bracelet' which amazingly could stop the development of skin cancer at an early stage.
School: St. Joseph's Secondary School
County: Clare
Teacher: Ms Mairead O Brien
Student(s): Róisín Sheedy, Saoirse Donnellan

3529
Title: Optimal healing time with correct use of crutches
Overview: Our investigation aims to improve use of crutches by implementing pressure sensors to achieve optimal healing time.
School: Coláiste Chríost Rí
County: Cork
Teacher: Miss Aoife O Donovan
Student(s): Rahul Nath, Patrick Aloc, Iftikhaar Haque

3530
Title: An Investigation into the Feasibility of the 2020 Olympic Games
Overview: Our project aims to create an organisational model that would allow the 2020 Olympic Games to take place
School: Coláiste An Spioraid Naoimh
County: Cork
Teacher: Ms Aileen O Mahony
Student(s): Oscar O'Corráin, Timmy O' Riordan, Tim Callanan

3531
Title: The effect of nutrition on the performance of young athletes.
Overview: Our project aims to discover and understand specific effects of nutrition on young athletes' performance and psychological behavior.
School: Holy Rosary College
County: Galway

Teacher: Ms. Catherine Kelly
Student(s): Amy Higgins, Adrianna Lee, Lucy Van Oosterhout

3532

Title: An Cóimheas Órga: an bhfuil sé le fáil i measc scoilire
Overview: Fiosraíonn an tionscnaimh seo an Cóimhneas Órga, an bhfuil sé le fáil i measc scolaire, go h-airithe maidir le scolairí an cheach bhlian maidir le airde s'acu
School: Pobalscoil Ghaoth Dobhair
County: Donegal
Teacher: Ms Susan Ní Loinsigh
Student(s): Niamh Ní Mheachair, Labhaoise Ní Fhríl

SENIOR GROUP

3601

Title: Red Planet Residence: Designing a Habitable Subterranean Environment on Mars Capable of Sustaining Human Life
Overview: To design a model of a subterranean habitat on Mars in which humans can survive under regulated conditions
School: Mount Anville Secondary School
County: Dublin
Teacher: Ms Susan O'Hara
Student(s): Katie Shaw, Ciara McCormick, Dervla O'Flynn

3602

Title: Analytical Solutions of Compartmental Epidemic Models and Their Application to Parameter Estimation
Overview: New analytical solutions of compartmental epidemic models allow us to devise methods of obtaining reliable estimates of the parameters of these models from observed data.
School: Synge Street CBS
County: Dublin
Teacher: Ms Kate Walsh
Student(s): Yaduvir Harhangi, Marton Goz

3603

Title: Investigating if there a link between lack of Vitamin D and the severity of COVID-19 in BAME
Overview: Skin colour,diet,culture and time spent in the Sun of various ethic groups are researched for possible links to a lack of vitamin D and COVID-19.
School: St Mary's College
County: Londonderry
Teacher: Mrs Ann Blanking
Student(s): Jennifer Doherty, Aimee Hegarty

3604

Title: Examining the bio-availability of medicinal drugs and vitamins from transdermal patches
Overview: We plan to calculate the log-p value of various medicinal drugs and vitamins and determine whether they are suitable for transdermal delivery or not.
School: Ursuline College
County: Sligo
Teacher: Mr Anthony Carolan
Student(s): Cianna Ruddy, Zoe Melvin

3605

Title: Green Chemistry! How Green is Leaving Certificate Chemistry.
Overview: We will examine the mandatory experiments on the Leaving Certificate Chemistry course through the lens of Green Chemistry.
School: Scoil Mhuire Strokestown
County: Roscommon
Teacher: Ms Mairead Glynn
Student(s): Emily Gleeson, Kate Clarke

3606

Title: What effects does hand sanitizer have on microorganisms
Overview: Our investigation is to see the different effects on hand sanitizer on microorganisms
School: Le Chéile Secondary School
County: Dublin
Teacher: Dr. Ciara Finnegan
Student(s): Michael Orimolade, Daniel Roban, Ryan Walsh

3607

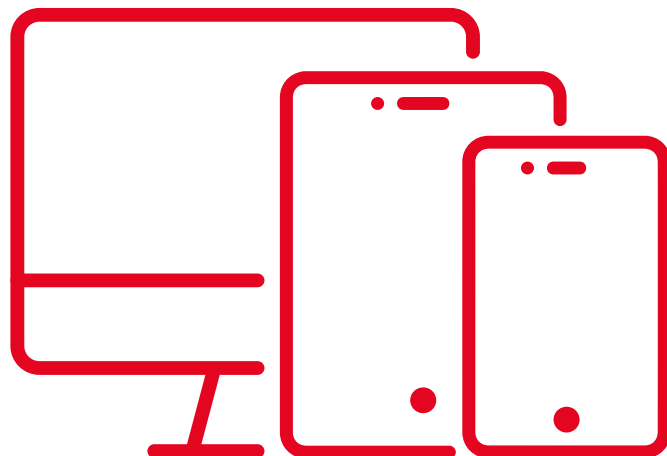**Title:** An féidir séiseanna cheol a chumadh go matamaiticiúil
Overview: Tá hipitéis againn gur féidir ceol a chumadh ag úsáid cóimheasanna matamaiticiúila agus uimhreacha minicíochta na nótaí ceol chun séiseanna ceolmhara a chumadh.
School: Coláiste na Coiribe
County: Galway
Teacher: Mr Maidhc Ó hÉanaigh
Student(s): Aoibheann Howe, Rachel Harris

Technology

JUNIOR INDIVIDUAL

4100
Title: D.O.R.A.S. "Door Operation Rural Alert System"
Overview: An innovative self-powered front door that provides increased peace of mind for the elderly and those living in isolated areas with built in security features.
School: Desmond College
County: Limerick
Teacher: Mr Donal Enright
Student(s): Jade Massey

4101
Title: Treatment on Ecchymosis using Ultrasound
Overview: Ecchymosis is hematoma of tissue, this project aims to explore the possibility of using a wearable ultrasound device to heal bruises and aches efficiently.
School: Desmond College
County: Limerick
Teacher: Mr Donal Enright
Student(s): Laura Brennan

4102
Title: Insliú,Insliú,Insliú
Overview: Are carbon taxes and grants effective at encouraging people to use insulation or is it just government "greenwashing"?
School: Gaelcholáiste Charraig Uí Leighin
County: Cork
Teacher: Mr. Rónán Ó Muirí
Student(s): Gráinne Ní Chróinín

4103
Title: A reusable biodegradable solution for coffee on the go.
Overview: My project aims to make a biodegradable, reusable plastic coffee cup lid that can be self applied to limit the spread of corona virus.
School: Abbey Vocational School
County: Donegal
Teacher: Ms Donna Furey
Student(s): Grace Masterson

4104
Title: Designing a better Operating System
Overview: It is about designing a better OS.
School: St. Kilian's German School
County: Dublin
Teacher: Ms Frauke Bosse
Student(s): Piotr Stelmaszek

4105
Title: How accurate is your weather app?
Overview: My goal is to determine how accurate weather apps are. I'll build a weather station using a mini-computer and check its data against their forecasts.
School: Glenstal Abbey School
County: Limerick
Teacher: Mr Cathal Reid
Student(s): Hugo Phelan

4106
Title: The Cosy Compacter
Overview: A product to reduce the quantity of bin-collections needed for recyclable waste. Thus positively impacting the environment by reducing the CO_2 emissions produced during bin-collection.
School: St Joseph's GS
County: Tyrone
Teacher: Mr Shane Donnelly
Student(s): Niamh Loughran

4107
Title: Home Spectral Analysis
Overview: My project consists of a high preforming digital spectrometer designed, calibrated and constructed at home.
School: Presentation College Headford
County: Galway
Teacher: Mr. John Toner
Student(s): Jonathan Flanagan

4108
Title: The Healthy Study App
Overview: I will create and test an app to help students who find it difficult to focus on their study and complete their homework.
School: St Andrew's College
County: Dublin
Teacher: Ms Emma Buckley
Student(s): Daniel Molyneux

4109
Title: DASHTags
Overview: Dash Tags is a complete, up to date, accurate record of a pet's health and well-being, right down to the simple things like food preferences.
School: Loreto Secondary School Fermoy
County: Cork
Teacher: mrs Aine Bushell
Student(s): Doireann Noonan

4110
Title: Too Hot -Stop!: An integrated temperature scanner and stop go system
Overview: The aim of my project is to design a stop go system with an integrated temperature scanner for use in community pharmacy setting.
School: Lanesboro Community College
County: Longford
Teacher: Ms Mary O'Brien
Student(s): Ronan Lyons

4111
Title: A Twist in the Turbine
Overview: Designing and testing a rotating fabric wind redirecter paired with a funnel and diffuser with the end goal of creating a small scale, mega cheap, reliable wind turbine in the context of domestic use or for developing countries aiming to cut down noise and size while reducing damage to wildlife such as flying animals.
School: Sandymount Park Educate Together Secondary School
County: Dublin
Teacher: Mr Conor Maxwell
Student(s): Elliot Kranz

4112

Title: Wind Turbine Assisted Electric Scooter
Overview: I am creating and building a wind turbine assisted electric scooter. This will increase the efficiency of an electric scooter in an eco friendly way.
School: Nord Anglia International School Dublin
County: Dublin
Teacher: Ms Raemie Begley
Student(s): John Gorman

4113

Title: Using NFC (Near Field Communication) technology to reduce learning time lost taking school register
Overview: My project aims to reduce the learning time lost taking the register at the beginning of school classes by using NFC technology to identify students
School: Kinsale Community School
County: Cork
Teacher: Mr Shaun Holly
Student(s): PJ Crowe

INTERMEDIATE INDIVIDUAL

4200

Title: Electronic Taste Simulation
Overview: Utilising electronics to fool the tongue into experiencing tastes that aren't there, thus reducing the desire for salt in our diets and improving our health.
School: Desmond College
County: Limerick
Teacher: Mr Donal Enright
Student(s): Aine Murphy

4201

Title: Hospital Holly and Henry - a mobile tri folding interactive solution to eradicate children's fears of medical procedures!
Overview: Hospital Holly and Henry is a coded interactive mobile solution aiming to eradicate children's anxieties surrounding medical procedures and empower them to be hospital heroes!
School: Mount St Michael
County: Mayo
Teacher: Ms Stephanie Hogan
Student(s): Aoibheann Mangan

4202

Title: Anti-backing loading gate
Overview: My project is a gate for loading Cattle into a transport trailer. The key to this gate is it cannot go backwards, only if released
School: John The Baptist Community School
County: Limerick
Teacher: Ms Brid O'Dwyer
Student(s): Michael Clifford

4203

Title: Increasing the battery range of a drone using solar energy.
Overview: My project is about increasing battery range of a drone using PV solar panels. I am using solar energy and converting it to electrical energy.
School: Coláiste Choilm
County: Cork

Teacher: Ms Grainne Costigan
Student(s): John O' Riordan

4204

Title: Safe Haven - a technology solution for social distancing measures in public places
Overview: To test the mock-up of a public place equipped with various technologies needed to make it compliant to measures like social distancing, temperature screening etc.
School: SEK Dublin International School
County: Wicklow
Teacher: Mr Emilio Garcia
Student(s): Smaran Pandey

4205

Title: Building NOAA Weather Satellite Ground-Station
Overview: My project is to make NOAA Weather Satellite Ground-Station, joining with NOAA Ground-Station networks helping each one to predict more reliable weather forecast.
School: St Eunan's College
County: Donegal
Teacher: mr michael harkin
Student(s): Hari Pranavam

4206

Title: Robot Radio: AI in the music industry
Overview: My project is an investigation into the question 'Is Ai a positive or negative development in the music industry, and how?'
School: Laurel Hill Secondary School FCJ
County: Limerick
Teacher: Ms Karen Kinnerk
Student(s): Claudia Lynch

4207

Title: CareerCoaster - The Ultimate Career Guide for Secondary School Students
Overview: This project is developing an Android application that gives secondary school students a clear insight into career choices after school.
School: St Mary's Secondary School
County: Dublin
Teacher: Ms Bronwyn Mulvey
Student(s): Mony Aramalla

4208

Title: Hello;Pole
Overview: A portable software utility to provide Auditory aid to the visually impaired using Computer Vision
School: St Michaels College
County: Dublin
Teacher: Ms Roisin Weldon
Student(s): Benjamin Banerjee

4209

Title: Autonomous Drone to Deliver COVID 19 Self-Administered Tests to Patients' Homes
Overview: An application that allows patients to self-administer COVID19 tests at their homes delivered to and from the hospital by drone autonomously in a climatically-controlled environment
School: St. Aidan's C.B.S.
County: Dublin

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Teacher: Ms Cathy Peoples
Student(s): Andrei Florian

4210

Title: Preventing machine accidents with warning systems.
Overview: My project aims to prevent accidents in workplaces from spinning machines. I will create a device that alerts people when its dangerous to be near.
School: Beara Community School
County: Cork
Teacher: Mr Dara Crowley
Student(s): Cathal O'Sullivan

4211

Title: On the Detection of COVID-19 with Chest X-rays Using Deep Learning Models
Overview: A novel method of COVID-19 detection is presented, using EfficientNet deep learning models on chest x-ray images, scoring over 96% accuracy on unseen images
School: St Andrew's College
County: Dublin
Teacher: Ms Emma Buckley
Student(s): Weichen Huang

4212

Title: wind turbine
Overview: a small electric wind turbine
School: Blackwater Community School
County: Waterford
Teacher: Mr Paul Joyce
Student(s): Cameron Bell

4213

Title: Fitn€$$: An App to provide Financial Incentives for Inactive Kids.
Overview: Fitn€$$ is a phone app that allows parents to track their childs daily step count and reward them for being active, encouraging physical activity.
School: Athlone Community College
County: Westmeath
Teacher: Ms Emma Finneran
Student(s): Tristan Greene

4214

Title: Interstitial Investigations
Overview: My project is about comparing cgm/fgm readings (from interstitial fluid) to blood sugar readings. I will also compare cgm/fgm features to benefit Type 1 Diabetics.
School: Presentation College Headford
County: Galway
Teacher: Mr. John Toner
Student(s): Anna Cooper

4215

Title: Fibrostick Pro:New Fibromyalgia Detection System
Overview: Fibrostick Pro is a product which I have designed alongside a pain scoring system to help diagnosis fibromyalgia in patients.
School: Kingswood Community College
County: Dublin
Teacher: Ms Ciara Cook
Student(s): Amy Carruth

4216

Title: Telepath
Overview: Telepath is an application that alerts users of of other larger/smaller vehicles on the road at dangerous rural bends.
School: St Patrick's Classical School
County: Meath
Teacher: Ms Sinead O'Sullivan
Student(s): Jake Casserly

4217

Title: A Higher Level Programming Language For Quantum Computers
Overview: The goal of this project is to create a higher-level compiled programming-language for quantum computers that can be read and written with ease and succinctness.
School: Stratford College
County: Dublin
Teacher: Ms Helen O'Kelly
Student(s): Ayush Tambde

4218

Title: Improved Face Mask Design and Materials for a COVID-19 World
Overview: Improving the design and properties of a homemade face mask considering zonal areas for optimised airflow and resistance to pathogen penetration
School: Coleraine Grammar
County: Londonderry
Teacher: Mrs Trina Reid
Student(s): Saashi Ghaie

4219

Title: Prototype of an Electroactive Polymer Muscle Suit
Overview: This project seeks to create a sleeve of wearable muscle, aimed towards applications in muscular rehabilitation, as well as strength and stamina enhancement.
School: Glenstal Abbey School
County: Limerick
Teacher: Mr Cathal Reid
Student(s): Fionn O Donnell

4220

Title: The Ultimate Guide To What Food I Can Give My Pet From My Kitchen
Overview: I have coded an app that scans human food barcodes to let you know whether your pet can eat it.
School: Cross And Passion College
County: Kildare
Teacher: Ms Aisling Doyle
Student(s): Aideen Stein

4222

Title: Use of medical technology into a vehicle steering wheel to help improve road safety.
Overview: My project aims to improve road safety by alerting the vehicle driver to tiredness or high stress due to changes in their heart rate.
School: Midleton College
County: Cork
Teacher: Ms. Niamh O'Mahony
Student(s): Molly Lowney

4223

Title: An investigation into the factors effecting Hydrogen yield in Electrolysis
Overview: Using a home made electrolysis apparatus I wish to compare different electrolyte and electrode combinations to test which will most effectively produce Hydrogen gas
School: St. Mary's College
County: Galway
Teacher: Mr Anthony Carey
Student(s): Liam Murphy

4224

Title: A Solution to Excessive Water Usage from Brushing Teeth
Overview: To address the problem of water wastage I am taking on the challenge of developing a tooth brushing system that significantly reduces the water used.
School: St. Mary's Secondary School
County: Mayo
Teacher: Ms Shauna Kearney
Student(s): Leah Hannon

4225

Title: ''My Nana & Telehealth''.
Overview: For my project I will be using Telehealth to find out it benefits elderly people in our society living on their own with homecare.
School: Gaelcholáiste Luimnigh
County: Limerick
Teacher: Ms Maria Kennelly
Student(s): Cadhla Ni Chaoimh

SENIOR INDIVIDUAL

4300

Title: An Analytical training aid system designed to improve performance in golf
Overview: Designing a unique training aid system to collect analytical data from a players grip on a golf club to increase performance and reduce potential injury.
School: Presentation Secondary School
County: Tipperary
Teacher: Ms Serena Moloney
Student(s): Edel Daly

4301

Title: Was Granny right ? Can Copper based Electrochemistry offer a Safe Plant Specific Herbicidal Solution, to Control Invasive Plant
Overview: To test if Copper Nails, with or without a source of electricity can kill a plant.
School: Ard Scoil Na Mara
County: Waterford
Teacher: Miss Claire Adamson
Student(s): Aran Walsh

4302

Title: The Wide Awake
Overview: An alarm which complements a fire alarm in the home to aid waking children and aiding swift evacuation in the case of a fire.
School: Castlepollard Community College
County: Westmeath

Teacher: Mr Stephen Melody
Student(s): Patrick D'Arcy

4303

Title: Automated Pill Dispenser - increasing independence, efficiency and reducing dosage errors. (Dáileoir Pill Uathoibrithe - neamhspleáchas agus éifeachtúlacht a méadú.
Overview: Using Arduino, I have created an automated pill dispenser to help carers with the management and dispensing of medication.
School: Gaelcholáiste Luimnigh
County: Limerick
Teacher: Ms Ciara Ní Dhrisceoil
Student(s): Sarah Moloney

4304

Title: Maintaining an "UltraWide" Distance
Overview: The Use of UltraWide Band Technology to Maintain Social Distancing In A School Environment While Also Maintaining Student and Teacher Safety
School: Loreto Secondary School
County: Tipperary
Teacher: Ms Emma Griffin
Student(s): Ceelin Conway

4305

Title: Using Image analysis to find people lost at sea
Overview: in this project i will use image analysis techniques to find a person lost at sea using standard drone footage
School: Salesian Secondary College, Pallaskenry
County: Limerick
Teacher: Mr John O'Flynn
Student(s): Abby Luna Garvey

4306

Title: Behind the Mask of Social Media: Using Natural Language Processing to highlight any increase in negative sentiment in social media activities during the Lockdown
Overview: Exploring and analysing the social media content and activities of teenagers, specifically relating to the time during the 20 20 Coronavirus lockdown period.
School: Jesus & Mary Secondary School
County: Mayo
Teacher: Ms Niamh Breheny
Student(s): Gordon McHale

4307

Title: CommunicAID: A mobile application to assist in the virtualisation of the medical sector and streamlining of patient specialist relations
Overview: CommunicAID aims to provide patients with messaging services between themselves and specialists, a medical event diary, medication reminders and forums for suffers of similar illnesses.
School: Colaiste Mhuire
County: Westmeath
Teacher: Ms Eva Acton
Student(s): Ruairi Fagan

4308

Title: Towards detecting state-of-the-art deepfakes
Overview: Using artificial intelligence to detect state-of-the-art deepfakes. A comprehensive analysis of detection methodologies and

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improvements in the field.
School: Bandon Grammar School
County: Cork
Teacher: Mrs Carena McCarthy
Student(s): Greg Tarr

4309

Title: Phototropic - using machine learning algorithms to prevent habitat loss and deforestation
Overview: Using deep learning algorithms to predict using satellite imagery and plant analysis tools where and when deforestation and habitat loss is to occur.
School: Templeogue College
County: Dublin
Teacher: Ms Linda Ward
Student(s): Joshua Butler

JUNIOR GROUP

4400

Title: Personal Pop-Up Pod
Overview: 'Our design provided a pop-up temporary shelter for homeless, especially for those that decline residential homeless accommodation.'
School: Desmond College
County: Limerick
Teacher: Mr Donal Enright
Student(s): Emma Greaney, Faye Murphy

4401

Title: Teacher's P.E.T. (Personal Educational Tools)
Overview: This device combines a range of useful tools for teachers such as whiteboard cleaner, laser pointer, protractor, ruler, markers, extendable compass & emergency power bank.
School: Desmond College
County: Limerick
Teacher: Mr Donal Enright
Student(s): Emma O' Connell, Mischa Ní Chaoinleáin, Sienna O'Dwyer

4402

Title: A Seed Of Hope
Overview: Design and develop an android interactive game to increase children's awareness of global issues.
School: St. Brogan's College
County: Cork
Teacher: Ms Laura O'Regan
Student(s): Cathal Cronin, James Considine

4403

Title: P.A.S.S.T - Pedestrian Alert Safety System for Trams
Overview: We are creating an app which alerts pedestrians and cyclists to the danger of nearby Luas trams.
School: Colaiste Mhuire
County: Westmeath
Teacher: Ms Eva Acton
Student(s): Killian McGrath, Evan McGreal

4404

Title: A Greener Greenhouse
Overview: By using technology we hope to make a greener, more efficient greenhouse, off setting its carbon footprint
School: Kishoge Community College
County: Dublin
Teacher: Mr Micheal Griffin
Student(s): Aqlan Ardy, Japnitt Singh

4405

Title: Decomposing rushes, the answer to heating homes?
Overview: Rushes are problematic on farms. We propose to investigate the potential of baled rushes decomposition properties to generate a green heat energy for buildings.
School: Tarbert Comprehensive School
County: Kerry
Teacher: Ms Joanne Mulvihill
Student(s): Jim Culhane, Paula - Eve Culhane

4406

Title: Interception of Insecure Wireless Network Protocols
Overview: Demonstration of how unencrypted network communication protocols can be intercepted when transmitted wirelessly and also how easy it is for anyone to do so.
School: Douglas Community School
County: Cork
Teacher: Mr Cian O'Mahony
Student(s): Alex De Groot, Robert Roy, Donagh Leahy

4407

Title: COVIS: COVID-19 Observation Visual Intelligence Sensor
Overview: AI that helps the public with their covid worries.
School: Belmayne Educate Together Secondary School
County: Dublin
Teacher: Ms Emma Burrowes
Student(s): Jack Winkless, Finn Skehill

4408

Title: Using GDPR compliant QR codes in the hospitality sector to simplify Covid 19 contact tracing
Overview: A case study intervention using GDPR compliant QR codes and an App to simplify contact tracing in the hospitality sector.
School: C.B.S. Secondary School
County: Kerry
Teacher: Ms Maire Fitzgerald
Student(s): Conor Flaherty, Ethan Ward, Philip Tracey

4409

Title: to investigate the potential of loam energy as a renewable energy source
Overview: investigating soil ions and electrolytes that create electrically conducting solution when dissolved in polar solvent , how different variables affect the amount of energy produced.
School: Our Lady's Bower
County: Westmeath
Teacher: Ms Aoife Curley
Student(s): Anna Harney, Lorraine Moran

4410

Title: Trackmed
Overview: Our app is to make sure people don't forget to take medication. There's an alarm and a vibration setting for people with hearing problems.
School: Mount St Michael

County: Mayo
Teacher: Ms Stephanie Hogan
Student(s): Caoimhe Monahan, Sophia Hession, Katie Jennings

4411
Title: Investigating what materials block a WiFi signal.
Overview: We will be investigating and testing what materials affect a WiFi signal's strength.
School: Douglas Community School
County: Cork
Teacher: Mr Cian O'Mahony
Student(s): Patrick James Irwin, Pierce McFarlane

4412
Title: A sensory cube for SEN children.
Overview: We will be designing a sensory cube, that allows children with special needs to engage in play and express their emotions effectively.
School: St Patrick's College
County: Tyrone
Teacher: Miss Sinéad O'Neill
Student(s): Thasia Latusuay, Mariato Embalo

4413
Title: Exploring the IPD and Nash Equilibrium using Machine Learning
Overview: We are going to explore the Iterated Prisoners dilemma using Machine learning.
School: Coláiste Phádraig
County: Dublin
Teacher: Ms Jacqueline Farrell
Student(s): Taha Fareed, Jevin Joy

4414
Title: HDPE Transformer
Overview: We have made an extruder for High Density Polyethylene plastic from reclaimed materials for domestic use to make HDPE recycling a reality.
School: St Marys College - C.S.Sp.
County: Dublin
Teacher: Mr John Nisbet
Student(s): Aayush Gajare, Hrishikesh Shenoy

INTERMEDIATE GROUP

4500
Title: Polarised, Anti-bacterial Face Shield, for use with Hurling Helmets
Overview: A face shield for hurlers helmets that prevent transmitting of disease from player to player and increasing their ability to catch a ball in sunlight.
School: Desmond College
County: Limerick
Teacher: Mr Donal Enright
Student(s): Emma O'Shea, Rebecca Enright

4501
Title: R.A.G.T.A.G
Overview: Is é R.A.G.T.A.G na róbot a gearrann torthaí agus glasraí. Tá sé ann chun cabrú bia a gearadh.
School: Gaelcholáiste Charraig Uí Leighin

County: Cork
Teacher: Miss Marianne Ní Thuama
Student(s): Nathan Ó Drisceoil, Kara Ní Dhuinn, Danny Barriscale

4502
Title: Developing a sensor glove for the blind
Overview: We seek to develop a glove which can sense objects surrounding it and sends a vibration to the user. This product will help the blind.
School: Nord Anglia International School Dublin
County: Dublin
Teacher: Dr. Florian Maisonneuve
Student(s): Adi Weitzman, Agustina German, Alexander Claxton

4504
Title: The Medicate Project
Overview: A silicone wristband that alerts people to take medication. Ideal for people such as the elderly, children and people with certain mental conditions.
School: Ursuline College
County: Sligo
Teacher: Mr Anthony Carolan
Student(s): Amy Jordan, Zoe Parkinson, Laura Coyle

4505
Title: Bike Blinkers
Overview: We plan to design and test indicators for a bicycle to see if they have potential to reduce road accidents.
School: De La Salle College Cork
County: Cork
Teacher: Ms Aisling Kelleher
Student(s): Fionn Crowley, Dylan Wenger, Marcin Oleksy

4506
Title: Music Wise- the music note scanner app
Overview: We want to develop an app that can name and play the note and identify its location on an instrument,by scanning it with your camera.
School: Beara Community School
County: Cork
Teacher: Mr Dara Crowley
Student(s): Katie O Donovan, Fiona O Donoghue

4507
Title: Take the musk out of your mask!
Overview: We would like to create a face mask with a filter that can be filled with essential oils to make them easier to wear.
School: Beara Community School
County: Cork
Teacher: Ms Cassandra Cremin
Student(s): Louise O'Donoghue, Ava O'Sullivan

4508
Title: A study, analysis and creation of a viral music videos
Overview: We hope to create a viral music video based on research and analysic of past viral music videos
School: Ennistymon Vocational School
County: Clare
Teacher: Mr Cian Ó Súilleabháin
Student(s): Caleb Pennill, Mary Byrne

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4509

Title: Reverse Trailer Hitch
Overview: Our project will be to design a device that will make reversing and hitching up a trailer safer and easier.
School: Carrick-On-Shannon Community School
County: Leitrim
Teacher: Ms Sinéad Creegan
Student(s): Brogan Fee, Janis Pass

4510

Title: Should Diesel Powered Tractors be Converted to Electric Power?
Overview: While there is a lot of attention on how electric cars are good for the environment, there is a lot less talk of electric agri-equipment.
School: St Joseph's College
County: Tipperary
Teacher: Ms Mary Gorey
Student(s): Eoin Kelly, Tim Comerford, John-Paul Curran

4511

Title: An App to Co-ordinate your Awareness and Knowledge of your Locality.
Overview: To design an app to encourage tourists and locals to learn about the unique history, ecology and activities in our locality.
School: Athlone Community College
County: Westmeath
Teacher: Miss Irene O'Sullivan
Student(s): Conall Mandal, Daragh Lowry

4512

Title: Optimising leg orthotic design for individuals with Charcot-Marie-Tooth Disease (CMT)
Overview: We will be investigating CMT and focusing on it's affects on the body. Through this we will develop and create optimised leg splint prototypes.
School: Laurel Hill Secondary School FCJ
County: Limerick
Teacher: Dr Mary Frawley
Student(s): Lucy Noonan, Joanna Ryan

4513

Title: Fire, or fire drill? An alarm that clears up confusion
Overview: Fire alarm utilising voice announcements such as "this is a drill" or "Leave the building" along with the typical fire alarm sound to reduce confusion.
School: Ursuline College
County: Sligo
Teacher: Mr Anthony Carolan
Student(s): Ella Joyce, Ava Pastor

4514

Title: Boost your Mood
Overview: Research common worries and anxieties in teenagers and use the information to create an app that will help address these issues using evidence-based CBT theories.
School: Loreto High School
County: Dublin
Teacher: Dr Rachel Hiney
Student(s): Aoibhinn Roche, Hannah Bolger

4515

Title: Automatic Door handle sanitiser
Overview: A machine that automatically sanitises door handles using a censor and a timer.
School: Carrick-On-Shannon Community School
County: Leitrim
Teacher: Ms Sinéad Creegan
Student(s): Ross Flanagan, Daniel Brady, Liam Chandler

4516

Title: Smart Reusable Water Bottle
Overview: This new invention will help you take in optimum water amounts every day including half of your recommended consumption by midday
School: Carrick-On-Shannon Community School
County: Leitrim
Teacher: Ms Sinéad Creegan
Student(s): Daniel Martin, Daniel Wynne, Cailum Moran

4518

Title: Using modern technology to emulate CHIP8 on a basic webpage
Overview: We want to use modern technology to emulate old games such as space invaders and make it run as fast as we can.
School: Gonzaga College
County: Dublin
Teacher: Mr Stephen McGroggan
Student(s): Christian Barton Randall, Niall Morahan

4519

Title: Easy Ankle
Overview: Our project aims to aid people who are transitioning from a support boot to a shoe after an ankle injury
School: Beara Community School
County: Cork
Teacher: Ms Cassandra Cremin
Student(s): Michelle Power, Emma O Shea, Niamh Cronin

4520

Title: OnlineOffline
Overview: Our main goal is to raise awareness when it comes to cyber security by creating a fun and educational board game, which is called "OnlineOffline".
School: Mercy Secondary School
County: Kerry
Teacher: Miss Eimear Nolan
Student(s): Michael Guerin, Adam Dineen

4521

Title: Defibrillator finder : Ballinrobe
Overview: Our goal is to develop an app that helps locate defibrillators in a time of a cardiac event.
School: Ballinrobe Community School
County: Mayo
Teacher: Ms Anne Hession
Student(s): Katie Fraser, Tamara Schulte, Siobhan McGrath

4522

Title: "S.O.S- Save Our Sheep"Tracking system
Overview: Our project aims to develop a GPS tracker for sheep

and cows to help prevent farm theft for the benefit of rural dwellers livelihoods.
School: Presentation College
County: Wicklow
Teacher: Mr Stuart Hannon
Student(s): Billy Corrigan, John Fox

4524
Title: Attainble
Overview: Attainable is an application which will come with a wearable that assists people with intellectual disabilities by delivering multiple resources and information in one location.
School: Mount St Michael
County: Mayo
Teacher: Ms Stephanie Hogan
Student(s): Anna Farragher, Theres Devassy

4525
Title: Using NFC technology on medical/ID bracelets
Overview: We aim to use NFC technology in medical bracelets. This would allow more crucial medical information to be available to the doctors of unconscious patients.
School: St Gerard's
County: Wicklow
Teacher: Mr Kieran McEvoy
Student(s): Aoibh Merrigan, Anna Reynolds, Alannah Whitelaw

4526
Title: Tap Tech
Overview: Our project aims to find a better way for elderly and vulnerable to connect with family and friends and have reminders using a bluetooth bracelet.
School: Sligo Grammar School
County: Sligo
Teacher: Miss Michelle Higgins
Student(s): Francesca Reddington, Louise Casey, Lara Swann

4527
Title: Haus
Overview: We want to automate tasks in the household to save electricity and time
School: Sligo Grammar School
County: Sligo
Teacher: Miss Michelle Higgins
Student(s): Cormac Shannon, Lewis Murphy, Rory Carr

4528
Title: Project Poles
Overview: Creating a magnetic powered turbine that is powered by opposite magnetic poles that turn the turbine and converts it to energy.
School: Coláiste Iósaef
County: Limerick
Teacher: Mr Brian Clarke
Student(s): Ciarán Cronin, Jamie O Connor, Enda Buckley

4529
Title: Floor Safe Lighting System
Overview: A pressure-sensitive lighting system to help elderly people navigate their around their homes safely at night.
School: Clonakilty Community College
County: Cork
Teacher: Mr Patrick O Keeffe

Student(s): Aidan Walsh, Diarmuid Murphy, Tomas Buckley

4530
Title: Solar power dessicant wheel efficiency
Overview: An Energy efficient clothes dryer. The solar panels will provide the energy for the dessicant wheels to turn.
School: Loreto Secondary School
County: Kilkenny
Teacher: Mr Brendan Williams
Student(s): Caoimhe Mahon, Robyn Nolan

4531
Title: Blue Light - Harmless Side Effect or Artificial Insomnia?
Overview: We will be examining the levels of blue light is emitted from various types of screens
School: Coláiste Cholmáin
County: Cork
Teacher: Ms Teresa Kearney
Student(s): Jamie Clancy, Denis Temple, Niall O' Sullivan

4532
Title: Captains Hook
Overview: The Captains Hook is a door opening device adapted to fit onto any key chain and open any design of door.
School: The Royal and Prior School
County: Donegal
Teacher: Mr Mickey Healy
Student(s): Matthew Gibson, Jamie Cole, Adam Mc Crabbe

4533
Title: Is It Ripe Yet?- A circuit to measure the light resistance of a variety of colours and thereby differentiate between red and green to determine whether certain varieties of fresh p
Overview: Electrical circuit that uses a photo-resister to tell the difference between the colors red and green and hence whether fruit is ripe or not
School: Mount Anville Secondary School
County: Dublin
Teacher: Mr Niall McGrath
Student(s): Ailbhe Kelly, Blathnaid Hickey

4534
Title: The Gameification of social distancing
Overview: We plan on making social distancing into a game to train students of the importance of social distance.
School: St Joseph's Secondary School, Rush
County: Dublin
Teacher: Mr Daryl Dunne
Student(s): Charlie Rice, Kerry Atowo, Joshua Gaffney

4535
Title: Can Virtual Reality interventions be used to tackle public speaking anxiety?
Overview: our project will explore the idea of helping people with public speaking fears with VR
School: St Joseph's Secondary School, Rush
County: Dublin
Teacher: Mr Daryl Dunne
Student(s): Oisín Gosson, Darragh Ruigrok, Jack Browne

4536
Title: A device using Arduino that will prevent young kids and pets from heatstroke in a car

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Overview: A device created using an Arduino, tempature and pressure sensor to prevent young children and pets from being harmed in an overheated vehicle.
School: C.B.S. Thurles
County: Tipperary
Teacher: Ms Helen Horan
Student(s): Sean O'Dwyer, Kevin Donovan

4537
Title: Jump through the ABC's
Overview: Our project aims to improve primary school teaching by incorporating different learning styles. We plan to make a website for teachers to make this possible.
School: Beara Community School
County: Cork
Teacher: Mr Dara Crowley
Student(s): Oonagh Spencer, Francisca Silva, Ava O'Shea

SENIOR GROUP

4600
Title: Aistrigh, The Smart Translator: Using Natural Language Processing Technology to Optimise Machine Translation in the Irish Language
Overview: We seek to develop, a fully working translator comparable to that of human translators within English and Irish using Neural Machine Translation Technology.
School: Patrician Secondary School
County: Kildare
Teacher: Mr Colin Doheny
Student(s): Justin Cunningham, Fintan Lalor

4601
Title: Self-Sanitising Surfaces
Overview: Self-sanitising surfaces slows the spread of germs, embedded ultraviolet LEDs in the surface activates a film of TiO2, a disinfectant that will sterilise the surface.
School: Desmond College
County: Limerick
Teacher: Mr Donal Enright
Student(s): Aoife Lee, Emma Brennan

4602
Title: SPECS - An Adapted Spectacle System for Dementia Patients
Overview: Our project aims to develop a Spectacle System to reduce anxiety and paranoia in patients suffering from dementia when faced with people they don't recognise.
School: Mercy Secondary School
County: Kerry
Teacher: Miss Eimear Nolan
Student(s): Dara Newsome, David Hughes, Conor Bradshaw

4603
Title: Give Me That ENERGY! A Wellbeing App For Young People
Overview: Our aim is to "pave the pathway to positive wellbeing" using our school wellbeing program incorporated into an app
School: Coláiste Mhuire Co-Ed
County: Tipperary
Teacher: Miss Katie Carr
Student(s): Kaitlyn Ryan, Kayleigh Cronin

4604
Title: It only takes 15 seconds
Overview: our project is based on hand hygiene in hospitals. we have created a device that makes using hand sanitiser compulsory upon entering the hospital.
School: Ursuline College
County: Sligo
Teacher: Mr Anthony Carolan
Student(s): Ella Rose Feeney, Bronagh McGee, Aoife Connolly

4605
Title: A modern approach to Irish EHR data storing and its role in predictive medicine analysis
Overview: Modernizing outdated Irish patient records and investigating the practicality of their widely available use in predictive medicine to aid in reducing cost and increasing awareness.
School: Scoil Phobail Sliabh Luachra
County: Kerry
Teacher: Mr Patrick O Donnell
Student(s): Liam McSherry, George Leonard

4606
Title: Defiblocator
Overview: Our app loctates every Defibrillator in the Republic of Ireland. It also displays the users location on the map to help recover the nearest AED.
School: De La Salle College
County: Louth
Teacher: Mr Shaun Cumiskey
Student(s): Eoin Byrne, Barry Caldwell

4607
Title: Can an economically efficient upper limb prosthetic be made and match the market?
Overview: We are designing a 3d printed prosthetic arm that we plan to make it end up costing less than other prosthetics on the market?
School: Naas Community College
County: Kildare
Teacher: Ms Naomi Curtis
Student(s): Sean Byrne, Sean Higgins

4608
Title: An investigation into the practical uses of facial recognition technology and biometrics, and the experimentation of available open source technology.
Overview: Investigating the modern day uses of technology involving biometrics such as facial recognition, and experimenting with open source related technology.
School: Loreto Community School
County: Donegal
Teacher: Mrs Roisin Coyle
Student(s): Ryan King, Ahmed Yousif

4609
Title: ARES: Automated Risk Evaluation
Overview: ARES is an artificial intelligence trained to detect firearms. The point of ARES is to drastically reduce the amount of firearm fatalities.
School: St Joseph's Secondary School, Rush
County: Dublin
Teacher: Mr Daryl Dunne
Student(s): Stephen Flynn, Oisin Brick

Young Scientist & Technology of the Year Limited

The BT Young Scientist and Technology Exhibition is the main activity of a charitable trust, Young Scientist and Technology Exhibition 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.

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 2011. In 2018 the first Young Scientist Kenya was held in Nairobi and in 2019 the first United Arab Emirates edition took place.

YOUNG SCIENTISTS TANZANIA

YOUNG SCIENTISTS KENYA

NSTI FESTIVAL
المهرجان الوطني للعلوم والتكنولوجيا والابتكار
NATIONAL SCIENCE TECHNOLOGY & INNOVATION

On stage

Institute of Physics - Lightning Show
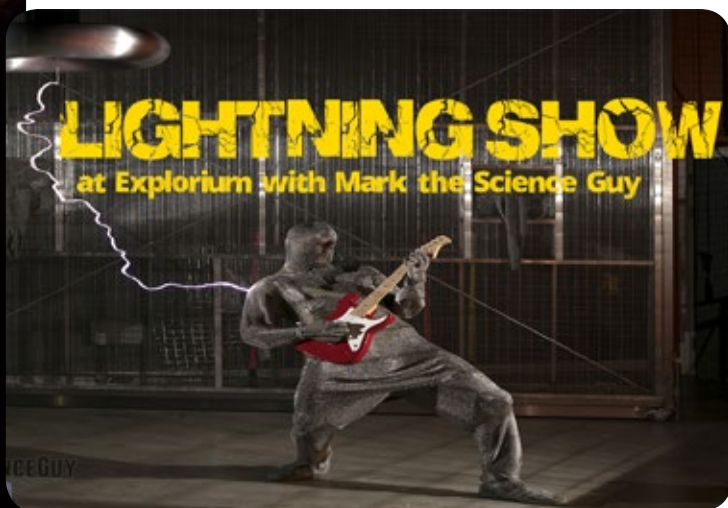
Explore the wonders of Electricity in this electrifying display of one of natures' most exciting phenomenon, Lightning. Mark the Science Guy will become the Master of Lightning as he attempts to harness the laws of physics to control a million volts of electricity and turn thunder into rock and roll music that'll remotely blow your socks off!

Investigate the nature of electricity through interactive demonstrations. Learn about electricity through the ages, and the many inventions that power our world, and create a few sparks while you're at it.

This is a show not to be missed!

How to become an astronaut
Spaced Out at Explorium

Blast off on your journey to the stars and find out what it takes to become an Astronaut! Join aeronautical engineer and POSSUM Astronaut Candidate, Dr. Norah Patten and physicist, footballer, and the Science Guy, Mark Langtry, on their mission to space as they take you on an action-packed adventure featuring rocket launches, g-forces, astronaut training, and get your space jam on with some questionable space food!

Tune in to win some fantastic space prizes AND be in with a chance to spend the day with Norah and Mark at Explorium, taking on the 'Ultimate Astronaut Challenge'!!!

The Science of Sport

Are the world's greatest athletes' top scientists?

Mark Langtry aka Mark the Science Guy, Theoretical Physicist, and former Professional Footballer, shows how an understanding of science can help improve your sporting performances!

This fun filled, energetic show explores the science behind the beautiful game, with interactive experiments and awesome demonstrations! Learn how tech and data are revolutionising sports performances around the world and pick up a tip or two of how to improve your own!

Our Amazing Universe: A journey of discovery

ESA/Hubble

As we look to the night sky we imagine what lies beyond our protective blanket of the atmosphere. We sometimes glimpse visitors from beyond as shooting stars as they burn up in the atmosphere above. We may witness the night sky light up in a cosmic dance with the beautiful Northern Lights. There is even the possibility to gaze upon ancient distant travelers as comets as they pass by us on their own journey around our star, The Sun. Through telescopes we gaze out into the universe and travel through space and time. Our scientific endeavours and exploration of space through robotic spacecraft have uncovered incredible vistas and secrets yet to be explained.

This presentation will take you on a journey through space and time and highlight some of the amazing discoveries we have made about our own Solar System and out into interstellar space and the universe beyond.

On stage

Using the universe to combat Covid

Danielle Wilcox who was the winner of the BTYSTE Irish Scientists Have Talent – will be taking the audience on a tour for a behind the scenes look at the science that happens at Blackrock Castle Observatory. First, we'll have an up-close look at the different smaller telescopes that we have on site that we use for observing nights at the castle. Then we'll head to our small observatory which houses the telescope used to look at exoplanets and we'll have a look inside the dome; this area is normally restricted to astronomers and staff at BCO. From there we'll head to the top of the main tower of the castle. There we have our large observatory, which is home to our main telescope, Big Bertha. Big Bertha peers halfway across the known universe to have a look at black holes. The techniques used to analyse the images of those black holes are now being used in an experiment to test masks that are being worn during the pandemic. So, from there, we'll journey out to the Cork Institute of Technology to see the experiment happening in action!

Nicola Millard – BT

'The D's shaping the future of work' – looking at what dynamics, beyond digital technologies, are shaping the broader ways we may work in the future.

Interview series

Dr Tony Scott

Dr Tony Scott, co-founder of the Young Scientist Exhibition in 1965 (with late Rev Dr Tom Burke) in conversation with Émer Hickey, one of the 2013 winners about the exhibition and how it has changed over 57 years and how the 2021 will be different than any other one.

Dr John Monahan

We talk to the first-ever winner of the then-called Young Scientist Exhibition Dr John Monahan, who after winning the inaugural prize in 1965 went on to a stellar career as a biotech entrepreneur. In Conversation with Mari Cahalane, Head of BTYSTE, they will discuss the exhibition hub being in the Mansion House where the first ever exhibition was hosted and also how the global scientific community are playing such a big part in the fight against Covid-19.
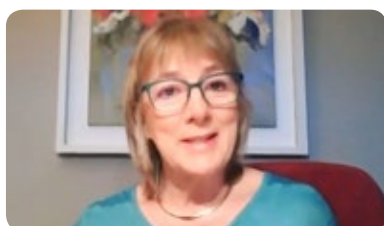
Julie Sinnamon, CEO of Enterprise Ireland

In conversation with former past participant and Mayo Nua founder, Jack O'Connor. Julie and Jack discuss the advantages of a virtual event and the role that BTYSTE has in fostering future leaders in enterprise in Ireland.

Prof Donald P. McDonnell

Prof Donald P. McDonnell, the Glaxo-Wellcome Professor of Molecular Cancer Biology, in discussion with Émer Hickey. Donald speaks about his career trajectory after winning the then "Young Scientist" award in 1978, and how he comes to serve as Co-Director of the Women's Cancer Program within the Duke Cancer Institute.

On stage

Interview series

Shane Curran

2017 winner and founder of Evervault, in conversation with former past participant and Mayo Nua founder, Jack O'Connor. Shane discusses his extraordinary journey from the exhibition floor to Silicon Valley and gives advice to those looking to follow in his footsteps.

Kate and Annie Madden

Kate and Annie Madden, founders of Fenuhealth, who specialise in equine health supplements, in conversation with former past participant and Mayo Nua founder, Jack O'Connor. The dynamic duo reveal how quickly things moved for Fenuhealth after the exhibition which was #BornFromBTYSTE and how they juggle entrepreneurship and academia.

EPA State of the environment video

Watch and find out about the current state of Ireland's environment.

Want to play your part?

Students can tell The Story of Your Stuff in the EPA's upcoming competition.

Molecules to Medicine: Making medicines in a global pandemic
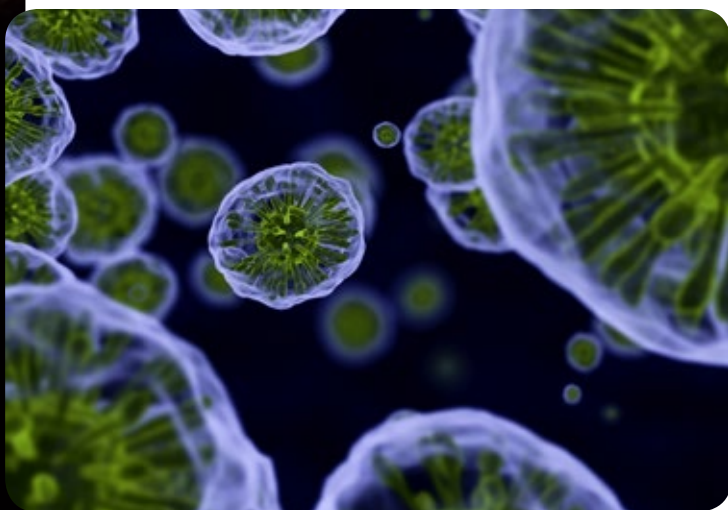
Prof Luke O'Neill chairs a panel on making medicines in a global pandemic

The year of 2020 has indeed been the year of science and scientists. The coronavirus pandemic has shaped the year in research. The speed of the coronavirus's spread has been matched only by the pace of scientific insights. Almost as soon as SARS-CoV-2 was discovered, research groups worldwide started probing its biology, while others developed diagnostic tests or investigated public-health measures to control it. Scientists raced to find treatments and create vaccines that could bring the pandemic under control. This panel discussion will take us through the year, and offer insights into the future and life post-covid.

TechStarter

connecting
women **in**
technology

Tech Starter event, organised in collaboration between BTYSTE and Connecting Women in Technology (CWIT). You can hear from our panel of change makers who are building a better future for our world through their passion for innovation and technology. One thing that has become most apparent this year is the reliance we all have on technology. The panel of special guests include a previous BTYSTE winner and other Alumni, entrepreneurs and problem solvers who have made their mark in the tech industry. They will share their journeys and their learnings to inspire the younger generation to keep tech on their career radar. The event will be opened by Minister Simon Harris TD.

Click here to book tickets

**Bright Futures
in Technology**
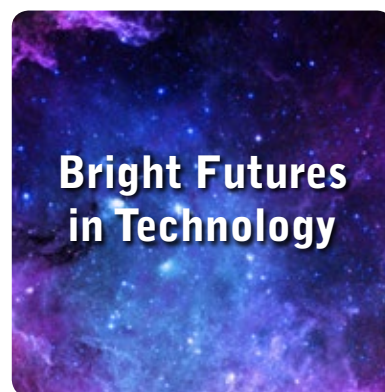
On stage

Why crystals will save the world

Prof. Michael Zarowotko's in conversation with Émer Hickey

A material developed by Prof. Michael Zarowotko's team at the University of Limerick "could help solve the global water crisis" by producing water from air, even in the most hostile of locations.

The crystalline material, known as ROS-037, has been developed after decades of research by Prof Michael Zaworotko, a Science Foundation Ireland research professor at UL's Bernal Institute. "Water vapour is everywhere in the atmosphere, even in the most arid regions, but harvesting pure water from water vapour using existing desiccants uses so much energy that it is not commercially viable despite the water stresses faced by much of humanity," Join Mike and former BT YSTE winner Émer Hickey to hear about how Mike's research is working to solve global environmental problems.

Science Foundation Ireland (SFI) Pick Your Brain Quiz with Phil Smith

Phil of Science is teaming up with Science Foundation Ireland for the interactive family quiz Pick Your Brain!

He has the questions, fantastic prizes and the bad jokes but do you have the answers? Join us for this fun 60-minute quiz that will a wide range of topics and tests for you and your class. Pick Your Brain will be live-streamed over Youtube with answers submitted via Kahoot. Each team will need a place to watch the stream and a device (phone, tablet) to submit their answers. No need to download an app you can just submit through the website. Places are limited for the prize-filled live-stream so sign up today!

What is Mark the Science Guy up to now

Exploding? Floating? Flying? or Crying? (with laughter of course).

What is the Science Guy doing today!?!?

Step into Mark's universe as he takes you behind the scenes to explore and investigate some of his favourite creations and inventions at Explorium! New insights and daily glimpses into the mad genius at work...and there is no great genius without some touch of madness!

Join Mark every day for your daily fix of science tricks!

RTÉ | Future Island
The Tesla car that drives itself

Petrolhead and comedian PJ Gallagher takes Tesla car for a spin as RTÉ's Future Island explores the technological advances that are changing our world. Sitting behind the wheel of an autonomous car, Gallagher is both nervous and amazed by the machine's ability to take control of the journey.

Take a look at the future of motoring here...

On stage

Coming, Ready or Not - The Climate Emergency

Environmental journalist and climate change campaigner John Gibbons delivers an online presentation on the climate change challenge facing us all, and the scientific and behavioural steps that need to be taken to address the challenge of global warming before it is too late.

## Combatting livestock resistance to anti-parasite drugs

This presentation by Irish based agricultural NGO Self Help Africa looks at an innovative programme that has been designed to respond to growing resistance of animals in the Developing World to anthelminthic (anti-parasite) drugs. Targeted Selective Treatments (TST) is a multi-country research project led by Prof. Eric Morgan of Queen's University, Belfast, and involving veterinary and scientific research institutes in the UK, Malawi and Botswana, and has focussed on how botanical dewormers might be employed at farm household level as an alternative to conventional drugs, in the treatment for parasites in goat herds.

Cairde

RTÉ
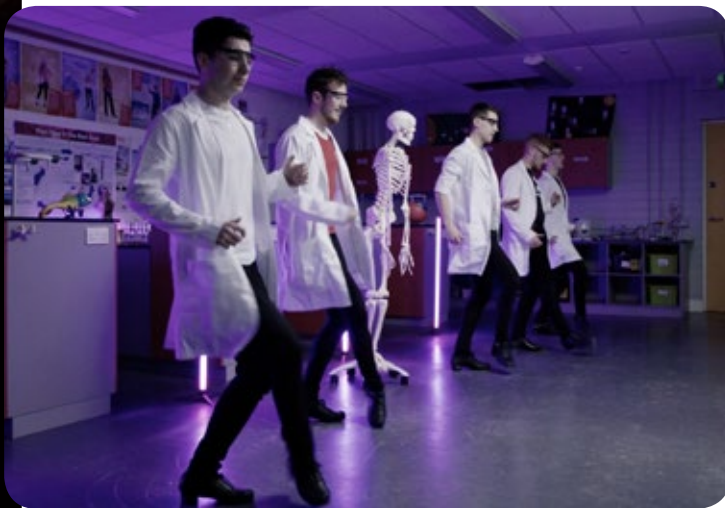
RTÉ has teamed up with Tik Tok sensation 'Cairde' and superstar DJ 'John Gibbons' to curate a very special performance for the BTYSTE 2021 Opening Ceremony. Filmed in Coláiste Iognáid in Galway, it is time to turn the volume up and enjoy!

Random Rap off Friday - Doireann and Eoghan

RTÉ

RTÉ 2FM
BREAKFAST
WITH DOIREANN AND EOGHAN
Random Rap Off Friday #BTYSTE special

On RTÉ 2FM Breakfast with Eoghan and Doireann on Friday 8th January, Doireann and Eoghan will go head to head in a Random Rap Off Friday BTYSTE special.

Listen live at 8.40am on RTÉ 2FM and then check out an exclusive behind the scenes look at their performance at 11am "On Stage" at BTYSTE.

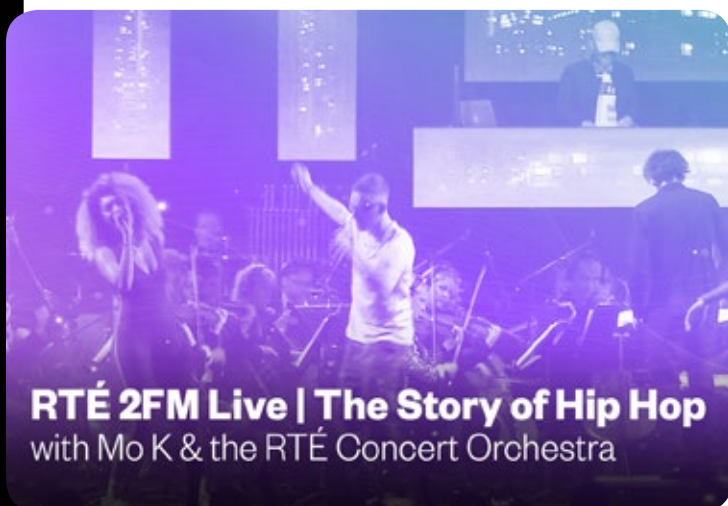# On stage

RTÉ After School Hub - on previously

RTÉ

Home School Hub was an integral part of life during lockdown; with After School Hub we are hoping to keep children – and parents – minds and bodies active during the winter months ahead. It will be full of fun, entertainment, but lots of learning as well.

Previously on
RTÉ #AfterSchoolHub

The Story of Hip Hop

RTÉ

'Origins, The Story of Irish Hip Hop' aims to tell the story of how hip hop slowly infiltrated Irish culture over the course of the past four decades, going from a niche underground prospect to one that is nipping at the heels of the mainstream today. with appearances from Irish hip hop pioneers Scary Eire and other 'old guard' forces including Rob Kelly, Messiah J and the Expert, Ophelia and Lethal Dialect – talk about laying the groundwork for the current crop, and how they were forced to rail against people constantly dismissing the very notion of 'Irish hip hop'.

RTÉ 2FM Live | The Story of Hip Hop
with Mo K & the RTÉ Concert Orchestra

Nextipedia
an event for Business Executives

BT

Aron Ralston

New York Times bestselling author and subject of Academy Award nominated film 127 Hours

BT Nextipedia, the business innovation symposium. Our online event will kick-start your year by inspiring you to make your next move with confidence.

This past year, businesses across the world have faced unprecedented challenges. To overcome this adversity, we will need to innovate and think differently in the future. That's why our symposium is focused on the theme: Your next move matters. Our speakers will bring this theme to life as they share their different perspectives including positive mindset, conquering personal adversity, implementing a change culture and connecting for good.

Take time out of your diary for BT Nextipedia and you can learn about facing adversity and making difficult decisions from those who've overcome the most extraordinary challenges. You'll also discover how rethinking, reinventing and reinvigorating your business can prepare you for whatever lies ahead. Because in an ever-changing world, what matters most is what we do next.

Because in an ever-changing world, what matters most is what we do next. **Register today** to book your spot.

Get the app

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

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

Download on the **App Store**

GET IT ON **Google Play**

#BTYSTE

Exhibition hall

Quick Search

Food Group

ABP Food Group

ABP is one of Europe's leading privately owned agribusiness companies. It is the largest beef processor in the UK and Ireland. The company also operates substantial renewable (Olleco), pet food (C&D) and protein divisions. ABP employs over 11,000 people and has 47 manufacturing plants in the Ireland, UK, Denmark, Poland, Austria, Holland, France and Spain.

www.abpfoodgroup.com

science & technology in action
www.sta.ie

AG Education Services

AG Education Services specialises in the provision of educational materials into Second level schools in Ireland. Such resources include Science and Technology in Action - a teaching and learning resource for second level education produced in partnership with the Department of Education and Science, industry, and teacher organisations.

AG Education resources address critical educational needs as recognised at European and Government level. Accordingly, the company has won the support of Irish government departments, relevant state agencies and professional associations.

AG Education Services are the creators of Science and Technology in Action, an innovative teaching and learning resource, delivered annually to all second level schools in Ireland and which is also available online at www.sta.ie

The teaching and learning materials are linked to the science curricula. The resource is developed in partnership with the Department of Education and Skills through the Professional Development Service for teachers (PDST), who are responsible for teacher in-service training.

The lessons are related to the real application of science and have been developed with Ireland's leading science and technology organisations, drawn form the public and private sectors.

As well as introducing new resources for teaching and learning to teachers and students of science, Science and Technology in Action provides a unique means of fostering the link between business and education what is more enforces the awareness of the critical importance of science and technology to our economy and society.

For more information on Science and Technology in Action, visit: **www.sta.ie**.

ANALOG DEVICES
AHEAD OF WHAT'S POSSIBLE™

Analog Devices

At Analog Devices, we are passionate about turning tomorrow's possibilities into reality through innovations that link the physical and digital worlds; translating real-world phenomena like motion, sound, light and electromagnetic forces into electronic signals and back again. We aim to make a positive impact on the environment and as a corporate citizen of the world and our engineers continue to find new ways to leverage our leading technology and expertise to deliver a more sustainable future for generations to come. See the positive impact Analog Devices has by browsing the video content on our Virtual Stand.

Analog Devices is proud to support the BT Young Scientist & Technology Exhibition to give encouragement to students in 2nd level education to consider Science and Technology in 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 virtual stand in the Technology Hall where they will open your mind to how our technology has an real impact in today's world – from preventing the spread of diseases, helping in water purification to accelerating the move to electric cars and much more...

Innovating since 1965, and Headquartered in Boston, USA, with ~16,400 employees across 30+ countries. In Ireland, Analog Devices' has development centres in Limerick and Cork employing over 1,400 people. Analog Devices has been named a Top 100 Global Innovator seven times in the last eight years, by solving some of the most complex and impactful challenges of our time: from detecting gravitational ripples in the fabric of space-time to enabling electric vehicles. Innovations that stem from engineers with a passion and vision to stay ahead of what's possible.

BFireSafe@School Project

The BFireSafe@School project is an Erasmus+ funded project to develop a new fire safety education programme for post primary schools all over Europe. The project consortium consists of 9 project partners from 7 EU countries, Ireland, Belgium, Denmark, Finland, Germany, Lithuania and Spain. Leitrim County Council Fire service is the project Coordinator and is led by Chief Fire Officer Finian Joyce. It is a collaboration between teachers and fire service personnel who will share best practice and use innovative digital learning methods to deliver the project. The new fire safety training programme (consisting of 10 modules delivered in the classroom and online) has been translated into 10 European languages and is suitable for pupils aged 12 -18. The project commenced in October 2018 and will finish in October 2021. It has been pilot tested in Ireland in Late 2019. Feedback from this pilot test has been very positive. It is now going to be pilot tested in other EU Countries in early 2021. A number of innovative outputs have been developed to assist in the delivery of the programme such as the FireSmart Augmented Reality App and the school evacuation video. A new Learning Management System has also been developed to manage all of the content. A teachers handbook is also part of the programme resources.

Check out our project website – **www.bfiresafeatschool.eu**

Follow us on Facebook, Twitter, Instagram, LinkedIn and YouTube.

BT

We use the power of communications to make a better world. We're passionate about technology.

Come to our stand to find out all about what makes us BT and the innovative work we do as a company.

We'll show you all about the innovations that we are currently working on, how we are using the power of communications to build a better world and what the future holds.

Our section shows the amazingly clever ways that internet can be used and how this has made an impact on communities and countries around the globe. We are investing more and more into future technologies with projects such as BT Ireland Innovation Centre that links with Ulster University in Northern Ireland.

Come to our stand to find out more about us as a company, the future and you.

CISCO

Reimagine education for tomorrow, while empowering continuity of learning today. Our solutions are simple to use, seamless to deploy, and supported by a committed network of education experts. Security is critical, so we build it into everything we make. University, college, or school. Large or small. We believe it is critical to continue educating the leaders, dreamers, artists, scientists, clinical researchers, caretakers, and doctors of tomorrow without compromising trust, security, or privacy today. With our broad portfolio and unmatched experience that spans networking, security, cloud, and collaboration, only Cisco can deliver the complete education solution that securely connects students, faculty and administrators – no matter where they are – so learning never stops.

Cook Medical

At Cook Medical, we invent, manufacture and deliver medical devices to the healthcare systems of the world. Our products provide physicians and patients with minimally invasive solutions for almost every body-system, eliminating the need for open surgery. As a family-owned company, we have the freedom to focus on what we care about: patients, our employees and our communities.

CSO

The Central Statistics Office (CSO) is Ireland's national statistical office. Formed in 1949, our mission is to:

Provide high quality information, both for evidence-based

decision-making and to support accountability.

The CSO regularly takes general and specific surveys of households, individuals and businesses such as the Survey on Income and Living Conditions, the Labour Force Survey, the Household Budget Survey, the National Travel Survey and the Household Finance and Consumption Survey. Using the data collected, we produce over 300 releases & publications each year. Some of our general statistical publications include the Statistical Yearbook of Ireland, Measuring Ireland's Progress and Women and Men in Ireland.

Our Values are:
- Independence, objectivity and integrity are core values
- We ensure absolute adherence to the legal guarantee of confidentiality and all activities comply with statistical and data protection legislation
- We drive innovation throughout all our business and organisational processes
- We are professional, reliable and trusted
- We have respect for our data providers and are committed to finding new ways to reduce the demands placed on them
- We constantly strive to provide excellent service to our customers
- We value our staff and strive to provide an environment in which staff meet their full potential and flourish at work

The CSO is an independent Office and the Director General of the CSO has sole responsibility in relation to professional statistical matters.

connecting women in technology

Connecting Women in Technology (CWIT)

Connecting Women in Technology is a network of Irish based technology companies who all share a common goal to support the development of women in the technology industry. Founded by Accenture, Dell and Microsoft in 2011, the network today spans 20 leading multinational technology companies, who all collaborate to attract, promote and encourage women in STEM careers.

Through our Education and Early Career pillars we support and run a number of programmes aimed at encouraging young females to understand what a career in a technology company looks like and the many opportunities available to them by studying a STEM subject.

Our flagship programmes include:

Digital Futures is a programme developed to raise students' awareness of the diverse nature of career opportunities in the technology sector and STEM throughout Ireland. The program consists of an interactive presentation designed to be delivered in secondary schools and is ideally suited for Transition year students (Age 15-18), before they choose their Leaving Cert subjects.

CWIT has partnered with Teen-Turn to identify girls with academic promise, placing them in 'Teen-Turnships' so they can picture themselves in tech careers. Teen-Turn aims to inform participants on education and career options and combat stereotypes by strategically changing how girls identify with technology through work placements and after school activities.

Tech Starter is a panel discussion style event delivered in universities to STEM students. Speakers share their personal experiences of working in STEM, what it's like to work for a technology company and making the transition from university to the workplace.

STEM Teacher Internships provides pre-service teachers with first-hand experience of working in the technology sector, dispel any misconception they may have about what type of people work in the sector and expose them to the sheer variety of roles that exist and career paths that people take.

Dublin City University

DCU is a unique and vibrant community. Three eclectic and complementary campuses, all close to the beating heart of Dublin and the rural landscape beyond, great transport links, unmatched student support and state-of-the-art facilities.

With a mission to 'transform lives and societies', DCU is ranked amongst the world's best 'Young Universities' (QS Top 100 Under 50). As Ireland's 'University of Enterprise', we were the first Higher Education Institution in Ireland to integrate workplace internships (INTRA) into our undergraduate courses. This real-world experience consistently gives our graduates a head start. In fact, DCU is placed in the world's Top 20 in the prestigious QS Graduate Employment Rankings and has been named The Sunday Times University of the Year for 2021.

Our Faculty of Science and Health is an internationally recognised centre of excellence in scientific innovation and health transformation and our Faculty of Engineering and Computing is recognised nationally and internationally for the

outstanding quality of its courses, which focus on preparing you to pursue careers in the engineering and ICT sectors.

We are committed to developing graduates who are not just employable, but are also creative, agile and engaged citizens who can flourish in a fast changing world.

Eli Lilly Kinsale

For four decades, Lilly Kinsale has been built on a team-based working environment where everyone takes pride in our contributions to the site and the company, but most of all, the positive impact we have on the lives of people around the world who depend on Lilly medicines every day.

Today, Kinsale plays a key role in the global Lilly supply chain, providing manufacturing capacity and technical expertise in three areas of medicine manufacturing technology.

Lilly Kinsale is home to a unique 50-hectare manufacturing campus where the worldwide supply of active pharmaceutical ingredients for many of Lilly's innovative medicines is made. The campus is situated about twenty miles west of Cork city in a countryside location between Kinsale and Innishannon.

It's not just the location that sets the Kinsale site apart, it's the work that we do here and the team that does it are what really make Lilly Kinsale a special place.

Uniquely in the biopharmaceutical industry in Ireland, the Lilly campus accommodates chemical synthesis, biotechnology and continuous manufacturing technologies - all inside one site boundary.

Within the site, a highly talented team of almost 1000 employees is dedicated to the Lilly purpose of making life better for people around the world, through their commitment to making medicines with safety first and quality always. A contract workforce of about 500 people partner with the Lilly team to deliver on the site mission.

Explorium

Explorium is the National Sport & Science Centre based in Sandyford, Co. Dublin a 110,000 sq. ft. state-of-the-art facility where you can discover the wonders of science, through our 300+ exhibits and worldclass challenges including:

• G-Force Bike
• VR Planetarium
• Lightning Show and Science Demos
• The Maker's Lab
and many, many more.

www.explorium.ie
seeing is believing!

Geological Survey Ireland

Founded in 1845, Geological Survey Ireland is Ireland's public earth science knowledge centre and is a division of the Department of the Environment, Climate and Communications.

It is committed to providing free, open and accurate data and maps on Ireland's subsurface to landowners, the public, industry, and all other stakeholders, including teachers and students, within Ireland and internationally.

It acts as a project partner in data collection and developing models and viewers to allow people to understand the surface and subsurface.

Geological Survey Ireland maps Ireland for the people of Ireland. The data underpins policy including in areas such as renewable energy, minerals, flooding, groundwater, coastal erosion, and the marine sector. It supports world-class research and job development in the Irish geoscience sector.

2020 was the 175th anniversary of the establishment of the Geological Survey in Ireland, to mark this, a joint Geological Survey Ireland and National Museum of Ireland exhibition is due to open in Collins Barracks, Dublin in spring 2021. This will celebrate the geology of Ireland, the work of the Geological Survey and will show case some of the minerals and fossils from the National Museum of Ireland collection. There will be a companion education programme aligned with the national curriculum.

Geological Survey Ireland encourages engagement with the public through the Duty Geologist service.

Greencoat Renewables

The purpose of our business is to invest in and responsibly manage renewable energy assets that create long term value for our shareholders. Central to the Company's strategy is growing a successful business that supports the transition to a net zero carbon economy while having a positive impact on the community in which it operates.

IE Domain Registry

.IE is the national registry for .ie domain names and is the trusted and progressive guardian of Ireland's unique online .ie address. We operate the domain name system (DNS) for the .ie namespace, facilitate an independent dispute resolution service, and operate a public WHOIS lookup service for .ie domains.

Our purpose is to enable and empower people, communities and businesses across Ireland to thrive online.

In cooperation with our Registrars, technical partners and stakeholders we help advance Ireland's internet ecosystem. Good governance is evidenced in our policy development process for the .ie namespace which follows a bottom-up, consensus-driven approach through a multi-stakeholder Policy Advisory Committee.

.IE is committed to digital advocacy for the SME community. Through stakeholder engagement initiatives such as .IE Digital Town we work with and support SMEs organisations to improve their members' online presence and e-commerce capabilities so they can unlock the power of the internet.

.IE also produces fact-based research for the business community and policymakers, such as the .IE Tipping Point Report, charting the attitudes of Irish SMEs and consumers to digital during the Covid-19 pandemic.

We are focused on providing excellence in customer service through our ongoing customer experience (CX) innovation and improvement programmes. Since March 2018, it is easier and faster to register a .ie domain. There are over 300,000 domains in the database.

Based in Dun Laoghaire, Co Dublin, .IE employs 22 people.

Institute of Physics

The Institute of Physics is the professional body and learned society for physics in the UK and Ireland, inspiring people to develop their knowledge, understanding and enjoyment of physics.

We work with a range of partners to support and develop the teaching of physics in schools; we encourage innovation, growth and productivity in business including addressing signi cant skills shortages; and we provide evidence-based advice and support to governments across the UK and in Ireland.

Our members come from across the physics community whether in industry, academia, the classroom, technician roles or in training programmes as an apprentice or a student. However our reach goes well beyond our membership to all who have an interest in physics and the contribution it makes to our culture, our society and the economy.

We are a world-leading science publisher and we are proud to be a trusted and valued voice for the physics community.

Intellectual Property office of Ireland/ Irish Patents Office

The Intellectual Property Office of Ireland, IPOI (formally Patents Office) is a statutory office that operates under the aegis of the Department of Trade, Enterprise and Enjoyment.

The role of IPOI 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).

Irish Aid

The Irish people's overseas aid programme, managed by the Department of Foreign Affairs.

www.irishaid.ie

ISTA

The Irish Science Teachers' Association, Eol Oidí na hÉireann, is the professional association for teachers of science in the Republic of Ireland. As such it is represented on the relevant subject development groups of the National Council for Curriculum and Assessment.

Since its foundation in 1961 it has been providing continuous professional development and support for its members at both national and branch levels.

Maynooth University

Maynooth University is an internationally recognised institution located 25 kilometres outside of

Dublin, Ireland, and is the nation's fastest growing university. On 16 June 2017, Maynooth University celebrated its 20th birthday, having been formally established as an autonomous university in 1997. Yet, it traces its origins to the foundation of the Royal College of St. Patrick in 1795, drawing inspiration from a heritage that includes over 200 years of education and scholarship.

Today, Maynooth University is a place of lively contrasts—a modern institution, dynamic, rapidlygrowing, research-led and engaged, yet grounded in historic academic strengths and scholarly traditions.

With 13,000 students from more than 90 countries, Maynooth offers a range of programmes at undergraduate, Master's and PhD level in the humanities, science and engineering, and social sciences, including business, law, and education. The University also offers a range of international programmes and partnerships.

Maynooth's unique collegial culture fosters an interdisciplinary approach to research, which its worldclass academics bring to bear in tackling some of the most fundamental challenges facing society today. The University's research institutes and centres consolidate and deliver this impact as vibrant communities of learning, discovery and creation. Research at Maynooth also is very much central to its teaching, and the University prides itself on placing equal value on its research and teaching missions.

In addition to being named in THE's Top 50 Under 50, Maynooth University is recognised among the top 350 universities in the world, the top 200 European universities, and as one of the top 200 universities for international connections and outlook.

The Faculty of Science and Engineering comprises the departments of Biology, Chemistry, Computer Science, Electronic Engineering, Experimental Physics, Theoretical Physics, Mathematics and Statistics, and Psychology.

Met Éireann

Ireland's National Meteorological Service, is a line division of the Department of Housing, Planning and Local Government and is the leading provider of weather information and related services in the State. Its mission is to monitor, analyse and predict Ireland's weather and climate and to provide a range of high quality meteorological and related information to the public and to specific customers in, for example, the aviation and agricultural sectors. As a scientific and technical organisation, it strives to utilise the latest technological and scientific advances in order to improve the efficiency, effectiveness and accuracy of its forecasts.

NUI Galway

The National University of Ireland Galway is celebrating 175 years of excellence. We are really very proud to be amongst the world's elite universities - as judged by our peers we are among the top 1% of universities globally (QS World University Rankings 2021).

Our College of Science and Engineering offers a wide range of research-led degree courses you can join for your study. We have a long heritage and - indeed - in 1906 our student, Alice Perry, was the first woman in Ireland or Britain to graduate with an engineering degree.

Scientific training and research contributes signi cantly to knowledge generation, technology development and translation, and to our economic and societal development. Our faculty - our professors and teachers - includes internationally recognised innovators contributing to the advancement of science and engineering, and the creation of everyday products used by millions of people throughout the world.

Accordingly, job prospects for our Science and Engineering graduates are excellent - and over 98% of our graduates find relevant employment or further study within six months of graduating.

We are also deeply committed to engaging with the public, and in promoting STEM in society. We are innovators in public engagement, and we lead many national initiatives, such as Cell Explorers and ReelLIFE SCIENCE - which you can read about at this exhibit.

Additionally, we lead in many other initiatives, including Soapbox Science; Bright Club; Kitchen Chemistry, and many others. We contribute to Engineers Week, and we also welcome over 20,000 visitors each year to the Galway Science and technology Festival - the largest of its kind in Europe!

Please do take a look at our exhibit to learn more about our public engagement initiatives, and to get information on the courses we offer and which you might like to study. Enjoy!

Perrigo

Perrigo Company plc is a leading provider of Quality, Affordable Self-Care Products and over-the-counter (OTC) health and wellness solutions that enhance individual well-being by empowering consumers to proactively prevent or treat conditions that can be self-managed. Led by its consumer self-care strategy, Perrigo is the largest store brand OTC player in the U.S. in the categories in which it competes through more than 9,000 SKUs under customer 'own brand' labels. Additionally, Perrigo is a Top 5 OTC company by revenue in Europe, where it markets more than 200 branded OTC products throughout 28 countries. The Company also commercializes and manufactures generic prescription products in the U.S.

Visit Perrigo online at **www.perrigo.com**

RTÉ | Raidió Teilifís Éireann

Ireland's National Public Service Multimedia Organisation Donnybrook, Dublin 4

Website: RTÉ.ie/about | **Email:** info@rte.ie

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Science, Engineering and Food Science (SEFS) at University College Cork (UCC)

University College Cork is an award winning institution with a history of independent thinking stretching back over 170 years. UCC is proud to be ranked in the top 2% of universities in the world. Our beautiful university opened it's gates to just 115 students in 1849. We now have a student population of over 21,000.

The College of Science, Engineering and Food Science (SEFS) is one of four Colleges in UCC. SEFS is proudly representing UCC for BTYS 2021. SEFS is made up of nine academic units:

1. Biological, Earth and Environmental Sciences
2. Chemistry
3. Computer Science and Information Technology
4. Engineering and Architecture
5. Food and Nutritional Sciences
6. Biochemistry
7. Microbiology
8. Mathematics
9. Physics

SEFS is a thriving, dynamic and diverse College, with internationally renowned academics, research institutions and centres. SEFS provides a vigorous and challenging academic atmosphere for our students. SEFS embodies 600 academic and research staff, over 5,000 students and generates 1,200 STEM-enabled graduates annually, SEFS College plays a significant role in the advancement of STEM – nationally and globally.

STEM has always been hugely important in society. Science, Technology, Engineering and Mathematics will play a pivotal role in the world's economic recovery once we begin to return to post pandemic normality, providing significant career opportunities to those who opt to study a STEM discipline. SEFS at UCC work with top-tier businesses around the globe and have developed a range of comprehensive partnerships via research and academic programmes. These in turn support our students as they develop their careers in STEM.

From cybersecurity to climate change, photonics to food, astrophysics to architecture, and sustainability to waste minimisation, SEFS/STEM at UCC is the place to be right now. To find out more please click on the link below: **https://www.youtube.com/watch?v=UOqHYKnBrPQC**

Self Help Africa

Self Help Africa is an Irish based international development organisation that works through agriculture and agri-enterprise to lift rural poor households out of poverty.

The approach is of 'a hand up and not a hand out,' and of working in collaboration with communities and local partners to increase the productivity and profitability of small farms, and support households to access markets where they can sell their produce.

For more than 35 years, Self Help Africa has been assisting rural poor households to grow more, to diversify what they grow, and to develop opportunities that can allow them to generate an income from their efforts.

SCIENCE FOR DEVELOPMENT AWARD

For more than 15 years, Self Help Africa has attended the BT Young Scientist and Technology Exhibition, and in collaboration with Irish Aid, the Irish government's overseas development agency, has presented the 'Science for Development Award.'

This award is a special category prize that is presented by the adjudicators each year to a student entry that addresses a challenge affecting people in countries of the Global South. Past winners of the award have included student entries that have looked at solar water purification methods, dairy pasturisation, fuel-saving cooking devices, seed planting devices, and at issues of health.

Since it's inception the Science for Development Award has enabled prize-winning students and their teachers to travel with Self Help Africa to countries in sub-Saharan Africa to deliver peer presentations of their work, and to undertake further research into their projects. These visits are made possible thanks to a travel bursary prize awarded by Irish Aid.

Sightsavers Ireland

Sightsavers Ireland is an international non-government organisation working to prevent avoidable blindness, support equality for people with disabilities and advocate for change.

Sightsavers works in more than 30 countries in some of the poorest parts of the world. Where we treat and prevent eye conditions such as cataracts, trachoma and refractive error, help to fight five debilitating diseases that affect more than a billion people around the world and campaign for disability rights so people with disabilities can participate equally in society.

Sightsavers Ireland recently launched a new interactive website for primary school children. The Put Us in the Picture schools website aims to engage children in primary school on issues of development, disability inclusion and the Sustainable Development Goals, as well as exploring how Irish people own and participate in Ireland's international development programme through Irish Aid.

Students watch animated movies, play interactive games, and are rewarded with badges to mark their achievements. Upon completion, each student receives a downloadable certificate naming them a 'Disability Inclusion Champion'.

Start the adventure today by visiting **www.putusinthepicture.ie**

SSPC

SSPC, the Science Foundation Ireland (SFI) Research Centre for Pharmaceuticals, is a hub of Irish research expertise developing innovative technologies to address key challenges facing the pharmaceutical and biopharmaceutical industry. The aim of SSPC is to deliver industry-relevant technical solutions, which result in job growth and retention within this sector in Ireland and grow the skills base of qualified scientists and engineers.

The research carried out by SSPC crosses the pharmaceutical production chain from molecule to medicine, with the objective of gaining a better understanding of mechanisms, controlling processes, and predicting outcomes for the efficient and environmentally sustainable production of safe medicines.

The SSPC Education and Public Engagement (EPE) programme plays a key role in communicating the importance and value of science to the wider society in Ireland.

SSPC's EPE programmes incorporate customised, context-based activities for each stage of the Irish primary and post-primary educational systems. Additional programmes designed for third/fourth level students, industry, and the general public also play a role in the EPE strategy to promote engagement with SSPC's research, as well as to create a dialogue among all participants about Science, Technology, Engineering, Mathematics and Medicine (STEMM), particularly in the area of chemistry and pharmaceutical manufacturing.

Teagasc

Teagasc is the national body providing research, advisory and training services to the agriculture and food industry and rural communities. We are the leading organisation in the fields of agriculture and food research in Ireland.

Research

The research we undertake covers four programme areas: Animal and Grassland Research and Innovation; Crops, Environment and Land Use; Food; and Rural Economy and Development.

Education

Teagasc colleges are strategically located and 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.

Postgraduate programme

The Walsh Scholarships programme is one of Teagasc's most important programmes and provides up to 50 Scholarships each year, mainly at PhD level, to graduates to undertake postgraduate research in agriculture, food, environmental science, agri-food economics, rural development, horticulture, and other related disciplines.

The programme has proven to be remarkably effective in meeting the training needs of graduates and directing them into high-grade employment in industry, academia and the wider public sector both in Ireland and internationally.

Walsh Scholars are part of a diverse student body, most of who are registered in Irish universities, but with a significant number studying in partner universities around the world and will benefit from joint supervision of a Teagasc and university supervisor.

Advisory

Teagasc provides an advisory and training service to farmers, covering practical, financial, technical and environmental issues. The Teagasc advisory service provides independent, professional and research-backed advice.

Check out the Teagasc website (www.teagasc.ie) or follow us on social media to find out more.

Trinity College Dublin

Science, Technology, Engineering and Mathematics

We believe that Science, Technology, Engineering, and Mathematics (STEM) have the power to change the world. Our mission at Trinity is to enable staff, students and graduates to harness that power to tackle the global challenges facing society and help us all to live better, more fulfilling lives on a healthy planet.

Trinity College Dublin is ranked 1st in Ireland and in the top 100 world universities by the QS World University Rankings. At Trinity you will learn from professors who are global leaders in their research fields and inspiring teachers. You can choose a range of undergraduate degree courses in disciplines such as Computer Science, Engineering, Genetics, Biological, Chemical, Physical and Environmental Sciences Courses. Course details can be found at https://www.tcd.ie/study/assets/PDF/TCDUndergrad-Prospectus-2021.pdf. What we offer is rigorous and internationally recognised training in your chosen field, along with demonstrated transferable skills.

In STEM all our undergraduate students undertake a capstone research project either in Trinity, via international placement or in industry. We train our graduates using state-of-the-art facilities and equipment. Our graduates become the thought-leaders and entrepreneurs of the future and many are responsible for ground-breaking inventions like food cloud, nicotine patch and Stevie the socially assistive robot.

E3: Representing Engineering, Environment and Emerging Technologies, E3 is a radically new type of collaboration between the Schools of Computer Science and Statistics, Engineering and Natural Science. E3 graduates across all its constituent disciplines will share an experience of having learnt and worked in a multidisciplinary environment, been educated by world-leading experts in areas of their specialisation and benefitted from best-in-class pedagogy. E3 graduates will be flexible, adaptable and creative individuals who bring deep disciplinary knowledge and problem-solving expertise to any challenge they are presented with.

Further details on E3 can be found at **www.tcd.ie/e3/**.

DRIVEN BY I

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

2004
Ronan Larkin

2011
Alexander Amini

2012
Eric Doyle, Mark Kelly

2013
Ciara Judge, Emer Hickey, Sophie Healy-Thow

2014
Paul Clarke

2015
Ian O'Sullivan, Eimear Murphy

NNOVATION

BT | **YS**

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

2005
Patrick Collison

2006
Aisling Judge

2007
Abdusalam
Abubakar

2008
Emer Jones

2009
John D. O'Callaghan,
Liam McCarthy

2010
Richard O'Shea

2016
Diana Bura,
Maria Louise Fufezan

2017
Shane Curran

2018
Simon Meehan

2019
Adam Kelly

2020
Alan O'Sullivan,
Cormac Harris

THE PRIMARY SCIENCE FAIR
AT THE BT YOUNG SCIENTIST & TECHNOLOGY EXHIBITION

THE PRIMARY
SCIENCE
FAIR
BT YOUNG SCIENTIST
& TECHNOLOGY Exhibition

The BT Young Scientist & Technology Exhibition will go ahead from 6th – 8th January 2021, despite school closures and other Covid-19 restrictions. The Primary Science Fair has had to be postponed as this can only happen in schools and we look forward to rescheduling this with schools when they reopen.

In the meantime here is some information about the schools and the projects.

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 2021. 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 BTYSTE 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 2022 will be launched alongside the BTYSTE in the next few months and entries will be submitted in September.

LIVING THINGS
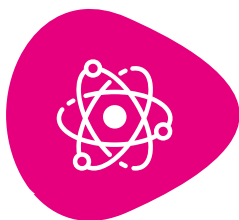
MATERIALS

ENVIRONMENTAL AWARENESS AND CARE

ENERGY AND FORCES

Project title: Robotics, friend or foe?
Project overview: The children will investigate how robotics have changed how businesses produce their products in Ireland. We will also look at how jobs that were previously done by humans are now done by robots. The children will also investigate other forms of A.I. relevant to them. The children will also get a chance to create their own robotic vehicles and instruments. They will also investigate the claim that 85% of the jobs that will exist in 2030 haven't been invented yet.
Scoil Naomh BrÃd Ballyconnell
Cavan

....

Project title: Sensational Seaweed
Project overview: Our project sets out to explore uses and benefits of seaweed. We learned about seaweed in school and found it a very interesting topic as our school is situated in West Cork and close to lots of beaches, some within walking distance. We want to learn how seaweed can be used as it is a renewable and sustainable source and we believe it has great potential.
Barryroe National School
Cork

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Project title: Mindful hearts
Project overview: Does mindful meditation effect our heart rate? We are conducting a study on the heart rate of 3 children in 6th class. We are investigating whether mindful meditation has an effect on our heart rate. We will be using a mindfulness based meditation program for the duration of 6 weeks. We will be practising mindful meditation 3 times a week for 6 weeks in total. The whole class will be taking part. We will be using a heart rate monitor to measure the heart rate of 3 pupils. We want to measure the changes in the heart rate of the 3 pupils before, during and after mindful meditation.
Boherbue NS
Cork

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Project title: What impact does pasteurization have on cows milk?
Project overview: The project is about cows milk and what pasteurization actually does to it. How does it change? What happens to it? How is it different to raw milk and which is better for the body. Does it lose some of its nutritional value when pasteurized.
Cullen National School
Cork

....

Project title: Do darker colours really attract more heat?
Project overview: Our project is about colour and heat absorption. As a class, we wondered why people always say 'darker colours attract more heat'.

We were not really sure what this meant and when we asked our teacher we decided we wanted to investigate if this is true or not.
Lisgriffin National School
Cork

....

Project title: Building a Hugelkultur
Project overview: We are looking to build hugelkultur in our new Biodiversity Garden. This is a mound of various debris. Hugelkultur are no-dig raised beds with a difference. They hold moisture, build fertility, maximise surface volume and are great spaces for growing fruit, vegetables and herbs. It is a gardening technique where using wooden debris, used newspapers, leaves, grass clippings, straw, cardboard, manure, compost, top with soil we then plant our vegetables.
Timoleague National School
Cork

....

Project title: Renewable energy powered car
Project overview: Our project is based on environmental renewable energy and how there are different ways to power a car. Even the electric cars, you can trace back how their power is made and eventually it becomes bad for the environment. With our car you can see where the energy is coming from. During the time you are not driving the car, it would charge from the sun. We don't realise that there is so much energy at our fingertips. We could probably power most of the world with sunlight. Our car would be made from recycled materials also, as much as possible.
Bayside SNS
Dublin

....

Project title: How does my immune system work?
Project overview: With Covid-19 being part of life, our immune system is invaluable. How does it protect us? We will explore how we fight illnesses and why we don't get certain diseases twice. How does a vaccine prevent a virus from attacking us? What does it mean to be immunosuppressed & what can be done about it? We will use models, experiments & analogies to demonstrate our findings & our research. We will make predictions and carry out surveys & transfer to graphs, along with interviewing a transplant recipient who is immunosuppressed as a result of taking anti- rejection medication.
Scoil Mhuire, Mount Sackville
Dublin

....

Project title: Can we turn summer clothes into winter clothes?
Project overview: We will be investigating whether we can reuse recycled materials to turn old summer clothes into new winter clothes. We will test materials to see how well they can insulate and then we will design and create new clothing using the

material(s) that insulate the best and recycled summer clothes eg. old t-shirts and shorts.

St. Kilian's S.N.S.
Dublin

Project title: Inside your head : What's going on?
Project overview: Our project is a study of the different parts of the brain. Children will present the different parts of the brain and how they relate to various functions and behaviours.

Scoil San Treasa
Dublin

Project title: How can we improve the quality of our life?
Project overview: This project will be about life expectancy and how we can improve the quality of our lives. Can we improve them physically and mentally. Can we do anything which will help us live longer?

Scoil San Treasa
Dublin

Project title: Does mindfulness effect your concentration level?
Project overview: We are going predict if we believe that mindfulness will effect our concentration levels. We will then investigate the affect of completing a mindful activity on our concentration level. We will do one week with no mindful activity as a control and play a concentration memory game and then one week with a mindful activity and then we will complete the concentration memory game. We will then analyse the results of both weeks to find out the outcome and hypothesis.

Bunscoil Loreto
Wexford

Project title: Pets in lockdown
Project overview: Our project is a simple one .A lot of us have pets at home and we would like to do a project on pets during lockdown. We think life changed for our pets in many ways and we would like to find out what it was like for other pets in Ireland and what other children ,adults and older people think. We would like to talk to others about how their pets lives changed .How the relationships between pets and their owners was affected. What happened to the numbers of pets in Ireland. Were these effects positive or negative.

s n Moin Ruadh
Ireland

Project title: How does Artificial Intelligence work in Robots
Project overview: From our work to date with Dream Space TV we are really interested in learning more about Artificial Intelligence. We would like to see if we can create a simple robot that will use some form of Artificial Intelligence.

Graignamanagh Boys' NS
Kilkenny

Project title: By your powers comBRINEd!!!
Project overview: In Kerry, we are surrounded by freshwater and saltwater. But how much salt is needed for freshwater to turn to saltwater?

Moyderwell Mercy Primary School
Kerry

Project title: Which grass produces the most biomass, which in turn will produce the most energy?
Project overview: We hear about greenhouse gases and climate change through the news, podcasts and social media. We hear about countries discussing and implementing plans to combat climate change. Governments are trying to adopt regulations to encourage people to live more sustainably to protect our planet. They look at how we heat and light our homes, what fuels our cars and how industries operate, in terms of renewable and non-renewable resources. We plan to explore some renewable and non-renewable resources and we plan to explore the advantage and disadvantage of using Biomass energy.

Primrose Hill National School
Kildare

Project title: How does music affect our body?
Project overview: Our project is about looking at how different genres of music affect our concentration, exercise and heart rate.

Scoil Eanna
Loughrea

Project title: How to remove oil spills from water
Project overview: Investigating ways in which oil can removed from water. Looking at the damage oil spills cause and the difficulty in cleaning an oil spill. We will use a few different commonly found items to mimic the real life equipment that is used when there is an oil spill. We will then use hydrogel to see how this will react with the oil. We have to then question if the hydrogel or other chemicals would be the best thing to use when cleaning oil spills."

Oristown National School
Meath

Project title: JK Irrigation System
Project overview: My project is about harvesting rainwater to water my garden. The system works automatically so it saves me time. It does not need any electricity to work so it is good for the environment. It saves money. It is economical and it could be developed to use on large fields and for industry.

St. Paul's NS
Roscommon

Project title: Biodiversity in our Area
Project overview: In our project we hope to increase the biodiversity and sustainability of our school grounds by making small changes to the school environment through the introduction of 'A Bug Hotel', 'A Butterfly Hotel', nesting boxes for birds, bird feeders, window boxes and a wildflower garden. We hope that our school will become a place where wild animals and birds will come to visit and make their home in our school.

Scoil Mhuire Gan Smál
Tipperary

Project title: When do we concentrate best in school?
Project overview: We want to find out if there are particular times during the school day when pupils' concentration levels are better. We also want to find out if there are times in school when our concentration levels are lower and what causes this dip in concentration.
Scoil na Maighne
Tipperary

Project title: Does Exercise Help Us to Concentrate Better?
Project overview: Our project is about the effect that exercise and physical activity has on our concentration and memory. We are investigating if our test scores improve following exercise and evaluating which type of exercise (gentle or vigorous) is better.
St. John of God N.S.
Waterford

Project title: How does Gaming, Exercise and Learning effect our Brain Power?
Project overview: We have decided to do our science project on the impact of gaming, learning and exercise on brain power. We have heard our adult generation telling us that gaming is not good for us, that it affects our learning capacity and our reaction times. They have said that we should read more or exercise more to develop our brains. We will investigate how our memory is after a set time of gaming, reading and exercise and then we will test or reaction times after the same. We will compare and analyse our results and see if our predictions are correct.
St Manchan's NS
Westmeath

Project title: Which masks give us the best protection while also providing comfort?
Project overview: During the current time, teachers and staff in school are wearing masks. Teachers are wearing masks provided by the school but most are opting for their own that they have purchased themselves. Our project is going to be about the different types of masks that the staff of our school are wearing.
Tubberclare NS
Westmeath

Project title: Can just 10 minutes exercise a day improve our fitness

Project overview: Our project is questioning the effect of 10 minutes exercise per day, we wonder whether it is enough to make a difference to us or not.
Bunscoil loreto
Wexford

Project title: Does exercise improve concentration?
Project overview: We are going to look at the effects exercise has on concentration. We will play a memory game then half the class will go out to exercise while the rest watch a movie. We will then redo the same type of concentration activity and see which group performs better. We will repeat the test the following week with the opposite groups exercising and watching a movie.
Bunscoil Loreto
Wexford

Project title: The Honeybee from Flower to Table
Project overview: Our project is about Honeybees! The important job they have in the environment for Pollination and the process the Honeybee undertakes to turn Nectar into honey and the role of the beekeeper to extract it and make it safe for eating.
Gorey Central School
Wexford

Project title: Music in the Classroom-Can it improve our concentration?
Project overview: At Bunscoil Loreto we have a great love of music. As a result, our class has a keen interest in participating in musical activities. For our project we want to investigate how music can affect our focus in the classroom. As a group of 6th class students who are about to transition to secondary school we want to explore if music can aid our focus and concentration. We hope to use our results to help us decide whether we should continue listening to music when studying in secondary school.
Bunscoil Loreto Gorey
Wexford

Project title: Taking the sting out of nettles
Project overview: Our project is about nettles from an environmental, medical and scientific point of view. What causes the sting to be so sore and how can we ease the pain?
St Peter's Primary School
Wicklow

FOR **FURTHER INFORMATION**

please visit   **btyoungscientist.com/the-primary-science-fair-at-btyste**
email   **primarysciencefair@bt.com**
or telephone   **1800 924 362**

THE **PRIMARY**
SCIENCE
FAIR
BT YOUNG SCIENTIST
& TECHNOLOGY Exhibition

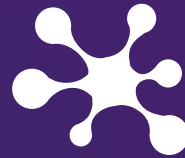# BT YS Business Bootcamp

Programme for students

A number of the exhibiting intermediate and senior students from the 2021 BT Young Scientist & Technology Exhibition will be invited to take part in a BT Young Scientist Business Bootcamp in February/ March next year 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).

in association
with UCD Innovate

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.

> The Bootcamp experience has been life changing. I feel it has really opened up doors for me in regards to career options, developing my project and communicating better with people. I have met and heard from some amazing and inspiring people and I feel I have become more creative and innovative in the way I think.

Events schedule
Wednesday 6th January

BT | YS

09.00 Our Amazing Universe: A journey of discovery	**09.30** Interview series Dr Tony Scott Co-Founder Young Scientist	**10.00** Spaced Out at Explorium
10.30 EPA State of Environment Report video 2020	**10.45** What is Mark the Science Guy up to now	**11.00** Using the Universe to Combat Covid
11.30 Interview Series John Monahan First ever winner	**11.45** RTÉ | Future Island The Tesla Car that drives itself	**12.00** IOP Lightning Show
12.30 RTÉ After School Hub The Science of Sound with Scientist Phil - on previously	**13.00** BTYSTE 2021 Opening ceremony	**13.30** What is Mark the Science Guy up to now
14.00 Our Amazing Universe: A journey of discovery	**14.30** RTÉ After School Hub Lung Capacity Experiment with Scientist Phil - on previously	**14.45** Interview Series Aisling Judge 2006 Winner
15.00 Science of Sport	**16.00** Molecules to Medicine: Making medicines in a global pandemic	**17.00** Coming, Ready or Not - The Climate Emergency

19.00 Tech Starter

Events schedule
Thursday 7th January

BT | YS

09.00
Day One highlights

09.15
Science of Sport

09.30
Cairde

09.45
What is Mark the Science Guy up to now

10.00
The Story of Hip Hop
RTÉ

10.30
EPA State of Environment Report video 2020

10.45
Interview Series
Julie Sinnamon
Head of Enterprise Ireland

11.00
SFI - Pick Your Brain Quiz with Phil Smith

11.30
Combatting Livestock Resistance to Anti-Parasite Drugs

12.00
Spaced Out at Explorium

12.45
RTÉ After School Hub
How Sound Moves with Scientist Phil - on previously

13.00
IOP
Lightning show

13.45
Interview Series
Shane Curran
2017 Winner and founder

14.00
Nextipedia
BT event for business people

14.30
Our Amazing Universe:
A journey of discovery

14.45
Talking head
Nicola Millard - BT

15.00
Using the Universe to Combat Covid

15.45
What is Mark the Science Guy up to now

16.00 Why Crystals will save the World

Events schedule
Friday 8th January

BT | **YS**

09.00 Day Two highlights	**09.15** Our Amazing Universe: A journey of discovery	**09.45** What is Mark the Science Guy up to now
10.00 IOP Lightning Show	**10.30** Interview Series Donald McDonnell 1978 Winner	**10.45** EPA State of Environment Report video 2020
11.00 Random Rap off Friday - Doireann and Eoghan	**11.30** Using the Universe to Combat Covid	**12.00** Interview Series FenuHealth
12.30 Spaced Out at Explorium	**13.00** BTYSTE 2021 Awards Ceremony	**14.30** RTÉ After School Hub Satellites with Scientist Phil - on previously
14.45 What is Mark the Science Guy up to now	**15.00** IOP Lightning Show	**16.30** RTÉ After School Hub Hot and Cold Experiment with Scientist Phil - on previously

Perrigo Company plc is dedicated to making lives better by bringing high quality and affordable selfcare products that consumers trust everywhere they are sold. The Company is a leading provider of over-the-counter health and wellness solutions that enhance individual well-being by empowering consumers to proactively prevent or treat conditions that can be self-managed.

Visit us at www.perrigo.com

BT

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.

Innovation

At BT, we can trace our roots back to the very first communications company, the Electric Telegraph Company, founded in 1846.

For more than 170 years, technologies pioneered by BT have truly built the modern world, and in that time, we've never stopped innovating.

In 1984 our research team perfected the use of single mode optical fibre. Today this technology plays a role at the heart of all global networks, including our own – a network that reaches customers in more than 180 countries. Now, we've over 14,000 scientists and technologists working for us around the world, and have invested €2.8 million in research and development in the past five years.

BT's global presence means that we innovate globally too. Our worldwide scouting network, combined with strong relationships with leading universities, allows us to find the best innovations from across the globe, blend them with our own capabilities and in-house research, and create new possibilities for our customers.

That's why we are so proud to organise the BT Young Scientist & Technology, for 20 years, to increase youth engagement in science and technology, and give them a platform to showcase their innovative ideas nationally and internationally.

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 more than 12,700 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.

Find out more at:
btireland.com and **btyoungscientist.com**