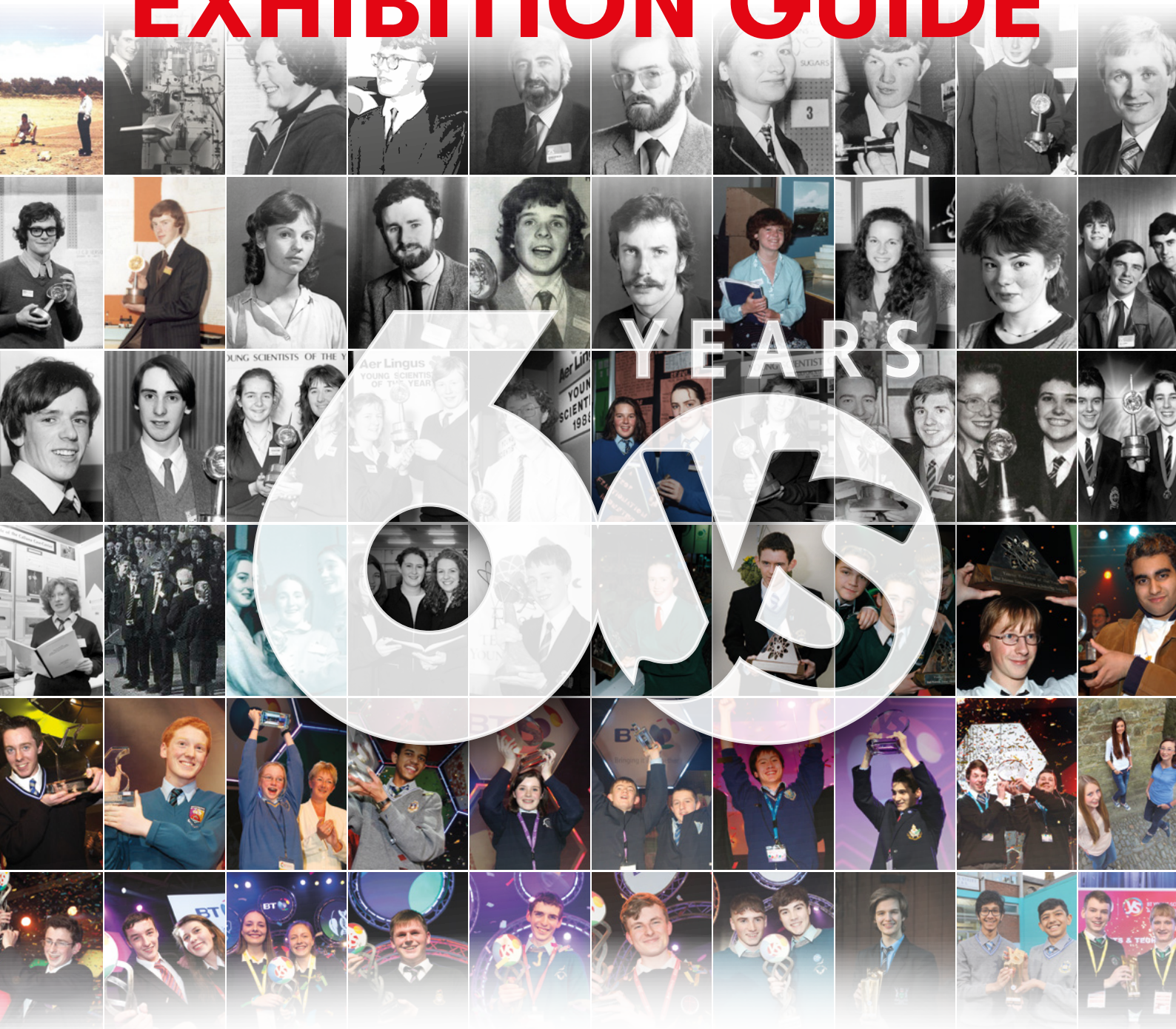




**BT YOUNG SCIENTIST
& TECHNOLOGY** Exhibition

EXHIBITION GUIDE



**Celebrating 60 years of scientific
and technological innovation**

11th - 13th January 2024 | RDS, Dublin



BT YOUNG SCIENTIST & TECHNOLOGY Exhibition

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BTYSTE 2024 Web | Portal | App | Social Media

Keep in contact with what is going on at BTYSTE through our **social media** channels, why not put some comments up there yourself! **#BTYSTE**

Go to **www.btyoungscientist.com** for direct links to all of our social media platforms and portal.

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





Foreword

A message from Shay Walsh



It is my pleasure to welcome you to the 60th edition of the Young Scientist and Technology Exhibition. For 60 years, the exhibition has been a fantastic celebration of curiosity, science and technology. The students who have participated in the exhibition over the past six decades have generated incredibly creative and successful ideas and innovations that have positioned Ireland as a leader in STEM (science, technology, engineering and maths).

As custodian and organiser, BT Ireland is hugely proud of our ongoing support of the exhibition. We were delighted to announce recently that we have extended our partnership with the Young Scientist & Technology of the Year Limited for a further three years through to the 2026 BT Young Scientist and Technology Exhibition. The delivery of the exhibition can only happen with the support of our 150 plus BT colleagues who volunteer their time each year as 'Red Coats' to help the students set up, welcome visitors through the exhibition doors and support our judges.

To mark 60 years of the exhibition, we have introduced a new category, Health and Wellbeing, which has opened up the exhibition to many more fantastic project ideas. The Health and Wellbeing category aims to promote research and innovation in areas related to human health, medical advancements, nutrition, exercise, and overall wellbeing.

The BTYSTE provides a platform for students to get involved in STEM, and by participating, not only do they learn critical skills that will last a lifetime, but also their ideas could help change the world for the better. Just recently the Organisation for Economic Cooperation and Development (OECD) released data showing that Irish teens are performing significantly higher than the OECD average in mathematics and science. The continued interest in STEM by young people is hugely encouraging for the future of Ireland's economy and society, and as a communications services provider we are honoured to be part of that eco-system through our sponsorship of the exhibition.

The volume of exceptional entries we received for the 2024 exhibition shows that interest in STEM continues to grow. Over 2,000 project ideas were submitted – the highest in seven years. Our students have hugely impressed the judges with their projects exploring topics such as artificial intelligence, diversity and inclusion, and mental health, and this week 550 brilliant projects will be on display.

The exhibition is a wonderful festival of science and technology. Along with the student projects we hope you enjoy the exciting line up of activities we have in store for you, from the Primary Science Fair to exciting live shows and fascinating stands from our partners and supporting organisations. The very best of Ireland's STEM eco-system will be on display this week.

Thank you for joining us, we hope you have a fantastic time here.

Shay Walsh
Managing Director, BT Ireland

**Proud sponsor and organiser
of the BT Young Scientist &
Technology Exhibition**

Exhibition partners

The **BT Young Scientist & Technology Exhibition 2024** is proudly sponsored and supported by;



An Roinn Oideachais
Department of Education





Irish Aid
An Roinn Gnóthaí Eachtracha
Department of Foreign Affairs

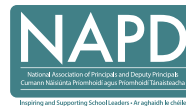
50
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An Chomhairle um Thaighde in Éirinn



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Awards

Main awards

BT Young Scientist & Technologist(s) of the Year 2024

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 45 prizes for individuals and 45 prizes for group projects. The prizes take the form of 1st, 2nd and 3rd in Junior, Intermediate and Senior sections of each of the five categories:

Social & Behavioural Sciences

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

Chemical, Physical & Mathematical Sciences

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

Technology

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

Biological & Ecological Sciences

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

Health & Wellbeing

e.g. health, nutrition, work, leisure, living habits, culture, civil engagement, community, economic development, environmental quality, housing, skills, social connections

The prizes are:

		
1st prize €300/£270	2nd prize €225/£202	3rd prize €150 / £135
for both Individual and Group projects	for both Individual and Group projects	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 - Technology

Analog Devices will present an award in the Technology category to the best placed project for outstanding work exhibited in the Technology category, 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*.

Amgen - Biological & Ecological Sciences

Amgen 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 - Social & Behavioural Sciences

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.

Stripe - Chemical, Physical & Mathematical Sciences

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.

Health & Wellbeing

An award will be presented in the Health & Wellbeing 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.

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

Rev Dr Tom Burke bursary

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

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

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 Devices Trophy.

Amgen Educator of Excellence - Biological & Ecological Sciences

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

Stripe Educator of Excellence - Chemical, Physical & Mathematical Sciences

The winner receives a bursary of €2,000 and a Stripe trophy.

BT Educator of Excellence - Social & Behavioural Sciences

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

Educator of Excellence - Health & Wellbeing

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



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.



SOCIAL & BEHAVIOURAL SCIENCES

Annette Cahalane	Prof. James O'Higgins Norman	Dr. Maeve Martin	Prof. Yseult Freeney
Darran Heaney	Dr. Jean Cushen	Dr. Marion Palmer	Michael Reidy
Prof. Des McCafferty	Prof. Jessica Bramham	Dr. Nicola Millard	Caroline Gill
Fiona O'Callaghan	Dr. Jones Irwin	Dr. Orla Feeney	Dr. Niamh Ní Shiadhail
Dr. Helen Connaughton	Prof. Liz Nixon	Dr. Roisin Lyons	
Prof. Ian Robertson	Lynda McSweeney	Dr. Sinéad Smyth	

CHEMICAL, PHYSICAL & MATHEMATICAL SCIENCES

Prof. Claire Gormley	Prof. Maria Meehan	Prof. Peter Lynch	Dr. Tony Scott
Prof. Emma Sokell	Dr. Martina Nolan-Jones	Dr. Shane Bergin	Dr. Rachel Quinlan
Prof. Fergal O'Reilly	Prof. Orla Feely	Prof. Stephen Connon	
Dr. Graeme Horley	Prof. Pat Guiry	Dr. Susan Quinn	

TECHNOLOGY

Aaron McCormack	Claire McGee	Leonard Hobbs	Ray Goggin
Anna-Marie Turley	Dr. Helen McBreen	Noel King	Prof. Sarah Jane Delany
Barry Kennedy	Prof. John Dunnion	Norman Crowley	Prof. Vincent Wade
Brian O'Mara	Julie Spillane	Dr. Peter Taylor ^{★2001}	

BIOLOGICAL & ECOLOGICAL SCIENCES

Prof. Ann Cullinane	Prof. Evelyn Doyle	Prof. John O'Halloran	Prof. Mark Crowe
Dr. Colin Kelleher	Dr. Fidelma Butler	Prof. John Morrissey	Prof. Mary Kelly-Quinn ^{★1976}
Prof. Donal O'Shea	Prof. Geraldine Butler	Dr. John Monahan ^{★1965}	Dr. Richard O Hanlon
Prof. Emer Rogan	Prof. Grace McCormack	Prof. Karen McCreesh	Prof. Stephen Butler
Dr. Eoin Lettice	Prof. Helen French	Dr. Kathy OBoyle	Prof. Tadhg O Croinin

HEALTH & WELLBEING

Aidan Ryan	Deirbhile Nic a Bhaird	Prof. Joe Barry	Prof. Niall Moyna
Prof. Áine Kelly	Dr. Edel Higgins	Prof. Jo-Hanna Ivers	Dr. Tara Cusack
Prof. Catherine Darker	Prof. Fionnuala McAuliffe	Lorna Ross	
Conor Faughnan	Prof. Jane McGrath	David Silke	

Additional screening judges

Sean Corish

Julie Byrne

Carol Gibbons

BT Chairperson

Therese Gunning

Special Awards Chairperson

Padraig Dunne

★ Young Scientist of the Year past winner

2024 Project Quick Search

Project category

Social & Behavioural Sciences	Chemical, Physical & Mathematical Sciences	Technology	Biological & Ecological Sciences	Health & Wellbeing
1100 - 1612	2100 - 2612	3100 - 3605	4100 - 4607	5100 - 5605

School name/County

Antrim		
South Eastern Regional College - Lisburn	4300	
St Dominic's High School	5200	
Carlow		
St. Leo's College	4104	
Tullow Community School	1560	
Tyndall College	5407	
Cavan		
Coláiste Dún an Rí	2412, 4216, 5537	
Loreto College	1504, 1505	
St Bricin's College	1408, 4410	
Virginia College	1409, 2409, 2500, 4411, 5406	
Clare		
Coláiste Mhuire	5511	
Mary Immaculate Secondary School	2206, 2207 3207, 3208, 4205, 4401, 4402, 4403 4404, 4416, 4507, 4555, 5208	
St John Bosco Community College	5536	
St Joseph's Community College	4607	
Cork		
Árdscoil Uí Urmoltaigh	1513, 4405, 5216	
Ballincollig Community School	1557, 1570	
Bandon Grammar School	1204, 1575 2208, 3209	
Boherbue Comprehensive School	4217, 4412, 5539	
Christ King Girls' Secondary School	1209, 3103	
Christian Brothers College	1522, 4101, 4102, 4513	
Clonakilty Community College	2525, 3520 4214, 5549, 5550	
Colaiste An Phiarsaigh	1402, 1403, 1404, 1405 2405, 5513, 2414, 3412, 5402	
Coláiste Choilm	1538, 1539, 1540, 1541, 1542 1543, 2518, 2519, 3213, 3305 3521, 3522, 3523, 4525, 4526 4527, 4528, 4549, 4552, 5213, 5532	
Coláiste Daibhéid	5409	
Coláiste Fionnchua	1537, 2517, 5531	
Colaiste Muire	2209, 4207, 4509	
Coláiste na Toirbhirte	4206	
Coláiste Pobail Bheanntaí	1558	
Colaiste Treasa	1218, 1536, 5528, 5530	
Davis College	3407, 3531	
De La Salle College	1206	
Gaelcholáiste Charraig Uí Leighin	1556, 2307 4548	
Glanmire Community College	1221, 1550, 1551 3525, 4531	
Kinsale Community School	1222, 1411, 1565 2522, 3112, 3308, 3408 3309, 4539, 4540, 5105, 5106	
Loreto Secondary School	1514, 3210	
Maria Immaculata Community College	5529	
Millstreet Community School	1563, 4534	
Mount St Michael	3506, 4512	
Pobalscoil na Tríonóide	3403	
Regina Mundi College	1523	
Sacred Heart Secondary School	4508, 5512	
Schull Community College	1106	
Scoil Mhuire gan Smal	3402, 3536	
Skibbereen Community School	1567, 1568	
St Aloysius School	2406, 2407 2604, 4208	
St Mary's High School	1521, 2513	



School name/County

St Mary's Secondary School Macroom 1207, 1208
1515, 1516, 1517, 1518
1519, 1520, 4510, 5514, 5515

St Mary's Secondary School Mallow 3404, 4100
4406, 4511

St Peter's Community School 4535

St. Brogan's College, Bandon 1105, 1534, 1535
2305, 5412

Derry-Londonderry

St Cecilia's College 2400, 2503

St Mary's College 2200, 2501, 2502, 2611

Donegal

Abbey Vocational School 1308, 4604

Coláiste Ailigh 2416, 4417

Coláiste Cholmcille 1108

Loreto Community School 2523, 2524, 2528
4554, 5552

Loreto Secondary School 2605

Pobalscoil Ghaoth Dobhair 3535

St Columba's Comprehensive School 3527

Down

South Eastern Regional College
- Bangor Campus 4310

St Colman's College 2402, 2530, 5500

Dublin

Alexandra College 1103

Ballinteer Community School 1564, 1573, 4533

Blackrock College 2505, 2506

Castleknock College 1500

Christian Brothers, Synge St. 2403

Coláiste Choilm 3530

Coláiste Eoin 3100

Coláiste Phádraig CBS 2100, 3200, 3218, 5600

Gonzaga College 1412, 2404, 2601, 3204, 4203

Holy Child Secondary School 5548

Holy Faith Secondary School 1502, 5506

Home School 5300

Kishoge Community College 3604

Le Cheile Secondary School 1532

Loreto College 1503, 5545

Loreto High School 2202, 5203, 5503, 5504

Loreto Secondary School Balbriggan 4600

Malahide Community School 1100

Mount Anville Secondary School 2301, 2600, 4400

Mount Sackville Secondary School 1101, 4200
5502

Muckross Park College 4601

Our Lady's Grove Secondary School 4204

Our Ladys School 2602, 4305, 5508

Presentation College 1611

Rockford Manor Secondary School 2201, 2507
5501

Sandford Park School Ltd 5204

Sandymount Park Educate Together
Secondary School 4212, 5523

Santa Sabina Dominican College 5505

St Andrews College 2205, 2511, 3300, 4500, 5205

St Joseph's Secondary School 1102, 1200, 1600
2102, 2203, 2508, 2509
3201, 3202, 4201, 4202, 4302, 5554

St Kevins College 1223, 4304

St Kilian's Deutsche Schule 1501, 2218

St Louis High School 1201, 5601

St Mary's Secondary School Glasnevin 3501, 5507

St. Colmcille's Community School 4546, 5544

St. Tiernan's Community School 1559

Stratford College 2512, 3101, 3502, 5206

Sutton Park School 2510, 3203, 4303

Tallaght Community School 1610

The Institute of Education 2504, 3500, 4301

The Teresian School 4501

Galway

Coláiste Iognáid S.J. 5516

Coláiste Muire Máthair 1304, 1608, 1609, 2304
2610, 3518, 5524, 5525

Coláiste Naomh Eoin 2521, 2529, 5603

Dominican College 4407, 4514

Dunmore Community School 1574

2024 Project Quick Search

School name/County

Galway City & Oranmore Educate Together Secondary School	1533
Glenamaddy Community School	1301
Gort Community School	4103
High Cross College	4306
Jesus & Mary Secondary School	5517, 5518
Presentation College Athenry	2303
Presentation College Headford	2210, 2401, 3104, 3105, 4408
St Joseph's College	3301

Kerry

CBS The Green	3503, 3533, 4418
Community College Killorglin	5526
Mercy Secondary School Mounthawk	1215, 2211, 2212, 2408, 3212, 5212, 5522
Pobalscoil Inbhear Scéine	2526, 2607, 2608, 2609, 4414, 4544, 4545, 4556, 5542, 5543
Presentation Secondary School Listowel	1601, 5401
Presentation Secondary School Tralee	5509
Scoil Phobail Sliabh Luachra	5215
Tarbert Comprehensive School	3605

Kildare

Athy Community College	1217
Celbridge Community School	3110
Coláiste Naomh Mhuire	3504, 5100, 5510
Maynooth Post Primary School	4213
Newbridge College	1203, 1401, 1602, 2302
Patrician Secondary School	3102
Salesian College	3205
St Pauls Secondary School	1603, 2603

Kilkenny

Castlecomer Community School	1561, 1562, 4419
Coláiste Pobail Osraí	1303
Loreto Secondary School	1506, 1507, 1508, 1509, 4503, 4504
Meánscoil na mBráithre Criostaí	5546
Presentation Secondary School	1400, 5547
Scoil Aireagail	5527

St Kieran's College	4502, 4553, 5207
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Laois

Heywood Community School	4536
Mountrath Community School	4547
Portlaoise College	1107, 3214
St. Mary's C.B.S.	4602

Leitrim

Ballinamore Community School	1569
St. Clare's Comprehensive School	5214

Limerick

Ardcoil Ris	1527, 4518
Castletroy College	5104, 5535
Colaiste Chiarain	1219, 2213, 2214, 3216, 3306, 3603
Coláiste Ída agus Iosaef	1300, 3526
Coláiste Iósaef	1552, 1553, 5408
Coláiste Nano Nagle	3511, 3538, 3601
Desmond College	2103, 2410, 2411, 3109, 3215, 3602, 4558
Gaelcholáiste Luimnigh	1554, 1555
John The Baptist Community School	5541
Laurel Hill Secondary School FCJ	4519
Salesian Secondary College	3510, 5209
Scoil Pól	1302, 1526, 3534, 5520
Villiers Secondary School	1211

Longford

Ballymahon Vocational School	3524
Lanesboro Community College	4606
St. Mel's College	4603

Louth

Coláiste Chú Chulainn	2306
Colaiste Rís	3600
Dundalk Grammar School	3303
St Mary's Diocesan School	1210, 4209, 4409, 4516
St Vincent's Secondary School	1525, 2527, 4517, 5551

Mayo

Mount St Michael	1310, 3304, 5211, 5301, 5403
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School name/County

Sancta Maria College	1529, 2516
St Joseph's Secondary School	5103

Meath

Boyne Community School	1566, 4550
Enfield Community College	2216
Eureka Secondary School	1571, 5102
Loreto Secondary School	1528, 2101, 2515, 5210
St Ciaran's Community School	3307
St. Joseph's Secondary School, Navan	3512 4210, 4520

Monaghan

Ballybay Community College	5533
Largy College	2520
St. Louis Secondary School	5521

Offaly

St. Brendan's Community School	3529, 4537, 4538
Tullamore College	4308, 4309, 4530, 5602

Roscommon

C.B.S. Roscommon	4521
Coláiste Chiaráin	1216, 1406, 3107, 3517
Roscommon Community College	1220, 1545, 1546 1612, 2612, 4307
Scoil Mhuire	1305, 3532, 5605

Sligo

Jesus & Mary Secondary School	4522
Sligo Grammar School	1531
Ursuline College	1212, 1530, 2204, 3513, 3528

Tipperary

Borrisokane Community College	1547, 1548, 1549 2531, 4215, 5534
C.B.S. Thurles	1213
Cashel Community School	4605
Cistercian College	3514, 4523
Comeragh College	2215, 3537
Presentation Secondary School Thurles	1214, 3515
Rockwell College	5302
St Josephs College	2415
St. Anne's Secondary School	3211, 3516

St. Mary's Secondary School Newport 5404, 5405

Tyrone

St Ciaran's College	3400, 3401, 3410
St Patrick's College	5400

Waterford

Ardscoil na Mara	4211
Blackwater Community School	2413, 4311
St Paul's Community College	1413

Westmeath

Athlone Community College	1309, 3108, 4529 4557, 5303
Colaiste Mhuire	1306, 1604, 1605, 1606, 3106 3302, 3406, 3509
Marist College	3507, 5519
Meán Scoil an Chlochair	4515
Moate Community School	3409, 4413, 4415, 4541 4542, 4543, 5410, 5540
Our Lady's Bower	3405, 3508
St Finian's College	1104, 2514, 2606
Wilson's Hospital School	1607

Wexford

Bunclody Vocational College	1544
F.C.J. Secondary School	5555
Gorey Educate Together Secondary School	1407

Wicklow

Avondale Community College	1572, 5553
Colaiste Chraobh Abhann	1410, 5411
Gaelcholáiste na Mara	4532
Greystones Community College	2217, 3217
St Marys College	1307, 1510, 1511, 1512, 4505, 4506
St. Gerard's School	3206
Woodbrook College	4551

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JUNIOR INDIVIDUAL

1100

Title: To reward or not to reward, that is the Question

Overview: To develop and using a learning app to study the effect of external rewards on intrinsic motivation in Secondary School students.

School: Malahide Community School

County: Dublin

Teacher: Orla Rooney

Student(s): Nicholas Connolly

1101

Title: Does neurodivergence in young people affect their vocational career choices?

Overview: An investigation in conjunction with a local higher education college to find out if there is any link between neurodivergence and vocational career choices.

School: Mount Sackville Secondary School

County: Dublin

Teacher: Jennifer Simmons

Student(s): Amelia Simmons Rea

1102

Title: Unlocking hidden Superpowers: Exploring the strengths of neurodiversity

Overview: This project aims to investigate dyslexia and dyslexic thinking and to educate on the role of dyslexic thinking in the workplace and school.

School: St Joseph's Secondary School

County: Dublin

Teacher: Kevin Delahunty

Student(s): Emma Mullen

1103

Title: How have people's interest in school subjects changed over the past centuries, and what lies in 2050?

Overview: "Curiosity Drove My Study" explores evolving interest in secondary school subjects, using Google Ngram and R-4.3.1 to analyze past trends and predict future shifts.

School: Alexandra College

County: Dublin

Teacher: Patrick Cushen

Student(s): Jiyu Ellie Kim

1104

Title: An Examination of the Effects of Early Musical Training on IQ

Overview: This Project uses survey data collected from second level students to examine whether

early training in musical skill has a positive impact on IQ performance.

School: St Finian's College

County: Westmeath

Teacher: Martina Roache

Student(s): Dearbhla McGrath

1105

Title: To investigate school experiences of transgender and cisgender students in Irish secondary schools

Overview: I am investigating the school experiences, to see how similar and different transgender and cisgender students school experiences are.

School: St. Brogan's College, Bandon

County: Cork

Teacher: Sara Hurley

Student(s): Al O'Shea Murphy

1106

Title: Sustainability, Climate and Equity – When it comes to food, are teenagers prepared to put their money where their mouth is?

Overview: This project aims to discover whether teenagers who consider themselves concerned about equity, and environmental issues are prepared to actually change their food consumption habits.

School: Schull Community College

County: Cork

Teacher: Thomas O'Toole

Student(s): Emily Drinan

1107

Title: A detailed analysis of how the transition to secondary from primary school affects students mentally and academically

Overview: A detailed analysis of how the transition to secondary from primary school affects students mentally and academically using interviews and surveys for statistics.

School: Portlaoise College

County: Laois

Teacher: Fiona Kelly

Student(s): Seán Cheah

1108

Title: The gut microbiome, what do YOU know?

Overview: An investigation into the knowledge of adolescents on the gut microbiome

School: Coláiste Cholmcille

County: Donegal

Teacher: Fenton McHugh

Student(s): Alistair Cian

INTERMEDIATE INDIVIDUAL

1200

Title: Fine-Tuning Talents: Linking Sheet Music and Motor Dexterity

Overview: I aim to create an interactive learning application that will aid students develop visual motor skills through interaction with musical rhythm and notation.

School: St Joseph's Secondary School

County: Dublin

Teacher: Chris O'Connell

Student(s): Sophie Monks

1201

Title: The 'curse of knowledge' – fact or fiction? An investigation into the influence of the curse of expertise cognitive bias on teachers and how to mitigate its effects.

Overview: An investigation into the influence of the curse of knowledge cognitive bias on teachers and ways to mitigate its effects.

School: St Louis High School

County: Dublin

Teacher: Rachel Fairbanks

Student(s): Lucie Walsh

1203

Title: An investigation into bias against brands in different age groups when buying clothing and whether or not ethical consumerism is a problem with young people

Overview: Surveying and interviewing of different age groups to discern when "brand consciousness" starts and to gauge how they view different clothing brands and ethical brands.

School: Newbridge College

County: Kildare

Teacher: Anne Marie Davis

Student(s): Rian Hearne

1204

Title: Beyond numbers: The textual challenge of Junior Cycle maths for Dyslexic Students

Overview: My project intends to analyse the readability of the Junior Cycle maths paper for dyslexic students, and how we can strive to improve it.

School: Bandon Grammar School

County: Cork

Teacher: Maire Flynn

Student(s): Philippa McIntosh

1206

Title: The Evolution of Celebrated Cinema: An Investigation into Why Certain Critically Acclaimed Movies from the Last 100 Years are So Highly Praised

Overview: I will research 10

critically successful movies from the last 100 years and find out if there is a pattern or common factor between them.

School: De La Salle College

County: Cork

Teacher: Shannon Walsh

Student(s): Conor Creedon

1207

Title: An investigation into the effect of Artificial Intelligence Aids on learning achievements, creativity, and innovative thinking in Irish secondary school students.

Overview: My project aims to find out what effect Artificial Intelligence Aids have on learning achievements, creativity, and innovative thinking in Irish secondary school students.

School: St Mary's Secondary School Macroom

County: Cork

Teacher: Jennifer Butler

Student(s): Eugenie Kelleher

1208

Title: "Only child or lonely child?" An investigation into societal views of one child families.

Overview: My project aims to find out if "Only Child Syndrome" is real? how society views only children and aspects of an only child's life.

School: St Mary's Secondary School Macroom

County: Cork

Teacher: Jennifer Butler

Student(s): Ella Healy

1209

Title: Are cities making us miserable? -The psychological impact of living in a city with poor urban design - Cork City

Overview: I am studying the psychological impact of living in a city with poor urban design, Cork City, across 3 age brackets - (13-25, 26-65 and 65+)

School: Christ King Girls' Secondary School

County: Cork

Teacher: Vicky Bouché

Student(s): An Dinh

1210

Title: Studying the Effects of IQ on Behavioural Traits

Overview: A Survey will be given to a sample of boys aged ~12-18 to investigate if their IQ has any affect on their behaviours or emotions.

School: St Mary's Diocesan School

County: Louth

Teacher: Sophie Caine

Student(s): Kilian Laighléis

1211

Title: Orthosomnia- Race for sleep. Investigation into the relationship between the quality of sleep and checking of "sleep scores" on fitness apps.

Overview: Research addressing the lack of standardized sleep scores in smartwatches, exploring their impact on sleep, focusing on stress and anxiety due to sleep monitoring.

School: Villiers Secondary School

County: Limerick

Teacher: Louis Duffy

Student(s): Oyindamola Oluwadiya

1212

Title: The most common overlooked disability - A study of prosopagnosia

Overview: This project is a study of common strengths and weaknesses people with prosopagnosia have and how we can make accommodations

School: Ursuline College

County: Sligo

Teacher: Anthony Carolan

Student(s): Cara Egan

1213

Title: A statistical analysis of the wheelchair accessibility of different towns and a survey of public attitudes and awareness.

Overview: Investigating wheelchair accessibility of towns using the Mobility Divide Index. Also interviewing wheelchair users and researching attitudes/awareness of the public in relation to wheelchair accessibility.

School: C.B.S. Thurles

County: Tipperary

Teacher: Danielle Slaterry

Student(s): Luke Blackwell

1214

Title: The Psychology behind Sexist Behaviour towards Females and all those who identify as Women

Overview: My project aims to discover why humans predominantly show sexist behavior towards women and how we can tackle unacceptable sexist behavior through scientific understanding.

School: Presentation Secondary School Thurles

County: Tipperary

Teacher: Dearbhla Neville

Student(s): Emily Gleeson Kelly

1215

Title: Investigating the public awareness of autism and attitudes toward ASD-related topics

Overview: My project is a case study on autism, examining advancements throughout history, opposing professional opinions, and the lack of education about ASD in schools.

School: Mercy Secondary School Mounthawk

County: Kerry

Teacher: Mikey Lyne

Student(s): Aoife-Kate Trant

1216

Title: Digital Duality: Is AI a Blessing or a Plague?

Overview: This project delves into the profound benefits and potential downsides of AI's pervasive influence in modern society.

School: Coláiste Chiaráin

County: Roscommon

Teacher: Patricia Buckley

Student(s): Aristide Selve

1217

Title: Ref's are humans too!

Overview: My project aims to find out how the abuse GAA referees receive affects their mental health and wellbeing and how we can improve this too.

School: Athy Community College

County: Kildare

Teacher: Rachel Burke

Student(s): Adam Barry

1218

Title: An Investigation into the use of subliminal messages and it's influence on the perceptions and attitudes of people.

Overview: My project aims to investigate the effects of subliminal messages on the human condition. These messages are not consciously perceived but effect us Subconsciously.

School: Colaiste Treasa

County: Cork

Teacher: Peig O' Connor

Student(s): Grace O' Connell

1219

Title: Block it out? Does external audible stimuli affect our concentration depending on MBTI an investigation

Overview: My project focusing on investigating how audible stimuli affects concentration depending on our mbti's (Myer-briggs type indicator) and if mbti impacts this effect at all.

School: Colaiste Chiarain

County: Limerick

Teacher: Edel Farrell

Student(s): Amina Costello

1220

Title: The Impact of Peer-Led Cyberbullying Prevention Workshops

Overview: The primary objective of this project is to assess the effectiveness of peer-led cyberbullying prevention workshops in reducing instances of cyberbullying among students

School: Roscommon Community College

County: Roscommon

Teacher: Elizabeth Glancy

Student(s): Callum Beirne

1221

Title: Effects of chess playing on the cognitive ability of elderly people

Overview: To examine for any effects that playing chess may have on the cognitive ability of elderly people

School: Glanmire Community College

County: Cork

Teacher: Noreen Emerson

Student(s): Cathal Tangney

1222

Title: Imaginary Friendships

Overview: Our project will investigate whether the presence of imaginary companions in childhood impacts social competence in teenage years.

School: Kinsale Community School

County: Cork

Teacher: Patrick Burke

Student(s): Lily Cahill

1223

Title: Countertransference in a secondary educational setting

Overview: The study of countertransference between students and teachers.

School: St Kevins College

County: Dublin

Teacher: Ash Hussain

Student(s): Jamie Hamill

SENIOR INDIVIDUAL

1300

Title: Investigating the Interpersonal Skills of AI and Its Affinity with Mankind

Overview: Our project intends to evaluate the interpersonal skills of artificial intelligence and human feelings for its integration into society.

School: Coláiste Ída agus Iosaef

County: Limerick

Teacher: Elaine Stryker

Student(s): Tiernan O'Mahoney

1301

Title: Sleep EIGHT Feel Great

Overview: A study to investigate whether our sleep is affected by our screen time.

School: Glenamaddy Community School

County: Galway

Teacher: Aoife Collins

Student(s): Michaela Gillooly

1302

Title: An investigation into the uses of artificial intelligence in the modern world and the benefits or problems it may cause.

Overview: I aim to educate people on how AI programmes actually work and investigate the advantages and disadvantages of it.

School: Scoil Pól

County: Limerick

Teacher: Grace Garvey

Student(s): Pádraig Meade

1303

Title: Éifeacht Forbairt Nua ar Thrácht i mBinn Éadair, Áth Cliath. The effect of new developments on traffic in Howth, Co. Dublin.

Overview: Anailís staitisticiciúil ar an éifeacht a bhíonn ag forbairt nua i mBinn Éadair ar thrácht ar na bóithre agus ar iompar poiblí. Statistical analysis on the effect new development in Howth has on road traffic and public transport.

School: Coláiste Pobail Osraí

County: Kilkenny

Teacher: Julia Coffey

Student(s): Iain Ó Coimín

1304

Title: Aspects of Obsessive Compulsive Disorder (OCD) and its overlap with superstition

Overview: I've been thinking of how people perceive ODC and superstition, if people can identify one, the other or both in themselves... and to what level.

School: Coláiste Muire Máthair

County: Galway

Teacher: Anthony Carey

Student(s): Valeria Sarah McGrath

1305

Title: A statistical study of the perceived stress levels of first year post primary students during their transition to post primary school

Overview: This project aims to research the experience of first year students through the lens of perceived stress, test anxiety and social connectedness

School: Scoil Mhuire

County: Roscommon

Teacher: Mairead Glynn
Student(s): Victoria Geraghty

1306

Title: Do we need a new curriculum? A deep dive into the Irish Second Level Education System.

Overview: Secondary education in Ireland is a heavily debated topic. I will look at the current system, the curriculum and if a change is needed.

School: Colaiste Mhuire

County: Westmeath

Teacher: Eva Acton

Student(s): Andrew Brady

1307

Title: Housing Crisis- Could Retirement Be The Key?

Overview: To Explore the opinions and attitudes of all the Stakeholders involved in Retirement Villages as a potential solution to the Housing Crisis.

School: St Marys College

County: Wicklow

Teacher: Joanne English

Student(s): Eva Duffy

1308

Title: An investigation into the effects of videogames and team sports on the understanding of concepts of game theory and problem-solving in students.

Overview: I am to investigate the effect certain videogame genres and team sports have on students' ability to solve various problems involving game theory and logic.

School: Abbey Vocational School

County: Donegal

Teacher: Donna Furey

Student(s): Samaire Fern

1309

Title: Psycho-acoustics and their applications in psychiatric conditioning.

Overview: I aim to investigate the impact of music on trust and willingness to participate in psychiatric procedures and therapy, and develop a stochastic mathematical model.

School: Athlone Community College

County: Westmeath

Teacher: Gavin Beirne

Student(s): Sean Sibindi

1310

Title: Analyzing the Impact of Curvature and Other Mitigating Road Factors on Rural Road Accidents: A Comprehensive Study

Overview: Road surfaces and vehicle velocity contribute greatly to road accidents but the larger

degree curvatures on rural roads also must be factored in road accidents.

School: Mount St Michael

County: Mayo

Teacher: Stephanie Hogan

Student(s): Órlaith Heaney

JUNIOR GROUP

1400

Title: What A Good Question!

Overview: A questionnaire on people over the age of 50 about lifestyle choices and options. We will look and compare positions in families (youngest to eldest).

School: Presentation Secondary School

County: Kilkenny

Teacher: Laura Greene

Student(s): Eimear Lannon, Hannah Devine

1401

Title: Does the Rising Cost of Living Affect our Ability to Live Sustainably? - A Case Study of a Suburban Town in Co. Kildare

Overview: We will explore the impact of the rising cost of living on families and whether this affects their ability to ensure they live sustainably.

School: Newbridge College

County: Kildare

Teacher: Dermot Walsh

Student(s): Grace Joyce, Amira Curran

1402

Title: An bionn tioncar ar na rialcha sa bhaile ar d'iompar. Does having different house rules affect how you act.

Overview: Does having more freedom or restrain affect your behaviour, attitude, personality, actions, appearance, etc.

School: Colaiste An Phiarsaigh

County: Cork

Teacher: Caoimhín Ó Buachalla

Student(s): Saoirse Ní Mhurchú Laighin, Dervla NicAnAirchinnigh

1403

Title: Conas a athrion dath ár mbia conas a bhlasann sé. How the colour of food affects how it tastes.

Overview: The colour of our food can deceive your brain in to thinking the flavour of the food may be different despite how it tastes.

School: Colaiste An Phiarsaigh

County: Cork

Teacher: Caoimhín Ó Buachalla

Student(s): Niamh Nic Giolla Phádraig, Aoibhín Ní Mhanhúna

1404

Title: Conas a cuirfidh steiréaphlátaí diffríocht ar shaol leanaí?

How do stereotypes affect children?

Overview: We're looking into how stereotypes affect children, and what affect it has on their lives at the moment, and in the future.

School: Colaiste An Phiarsaigh

County: Cork

Teacher: Caoimhín Ó Buachalla

Student(s): Clodagh Ní Chrotaigh Glaimhín, Ruth Ní Chaoimh

1405

Title: Cad a dheanann fógra méan sóisialta.

What do social media notifications do.

Overview: Which social media ringtone and chime makes you want your phone the most and why

School: Colaiste An Phiarsaigh

County: Cork

Teacher: Caoimhín Ó Buachalla

Student(s): Seán Ó'Leannacháin, Peadar MacCraith, Sean Breathnach

1406

Title: Are You a Sheep or a Lone Wolf?

Overview: Does your age and gender affect your likelihood to follow other people's opinions.

School: Coláiste Chiaráin

County: Roscommon

Teacher: Fiona Corry

Student(s): Grace Meares, Saoirse Nolan

1407

Title: Swap Shop

Overview: Our project is a swap-shop. In Ireland, 63,000 tons of clothes are wasted yearly. Many people bin unwanted clothing, so we're trying to lower it.

School: Gorey Educate Together Secondary School

County: Wexford

Teacher: Casey Cotter

Student(s): Chloe Vos, Virgil Coyle, Kila Melvin

1408

Title: Evaluating the Impact of Hospital Visibility and Scholarly Contributions - An Intra-Country and Inter-Country Comparison.

Overview: This project aims to analyse the visibility and scholarly contributions of hospitals in Ireland, comparing their performance locally to their contributions on a global scale

School: St Bricin's College

County: Cavan

Teacher: Daryl Dunne

Student(s): Áine McGovern, Ruta Dulaityte, Alicja Czop

1409

Title: In the Eyes of the Beholder: An investigation into testing the Accuracy of eyewitness Testimonies in criminal convictions.

Overview: The purpose of this project is to determine whether eyewitness reports are reliable enough to be used as substantial evidence in criminal convictions.

School: Virginia College

County: Cavan

Teacher: Kelly Ryan

Student(s): Evan Andrew Durston, Caelan Macken, Conor Sheehan

1410

Title: Are you paying attention?

Overview: We surveyed 32 students (fifteen male and fifteen female) to discover how certain factors, such as study or quality attention, affected their grades.

School: Colaiste Chraobh Abhann

County: Wicklow

Teacher: Cathal Mac Oireachtaigh

Student(s): Eliza Scott, Mia Brady, Eugenia Bonsu

1411

Title: An investigation into why women's sport takes runner up place in the eyes of spectators compared to men's sport.

Overview: We intend to investigate why women's sport takes runner up place in the eyes of spectators compared to men's sport.

School: Kinsale Community School

County: Cork

Teacher: Aishling Kelleher

Student(s): Claire Linehan, Aoife Ferguson, Aisling Lynch

1412

Title: Are people able to differentiate an Artificial Intelligence-generated text from a human writing version?

Overview: Our project aims to investigate if people can spot the difference between AI-generated text and a human written version.

School: Gonzaga College

County: Dublin

Teacher: Diego Alexandre

Cavallaro

Student(s): Henry Danagher, Conor Down, Jamie Cass

1413

Title: Solar Panels - A Brighter future for our School using Microgeneration Technology

Overview: To demonstrate how

our school can become a shining example of clean energy adoption and inspire others in the school and community to follow suit.

School: St Paul's Community College

County: Waterford

Teacher: Gerard Lohan

Student(s): Leigha Kinsella, Alex Simpson, Daniel O'Sullivan Westphal

INTERMEDIATE GROUP

1500

Title: Student Security* - Assessing students' knowledge of cyber security through various surveys

Overview: The aim of our project is to gather information from secondary students and to educate them about the threats of cyber-attacks.

School: Castleknock College

County: Dublin

Teacher: Tom Tierney

Student(s): Joe Dwyer, Brian Caffrey

1501

Title: DIY Genetic Engineering: Assessing Accessibility, Ethics, and Public Sentiments

Overview: We plan to investigate and analyse public sentiments, ethics of CRISPR technology, and publicly available genetic engineering tools using surveys and a small experiment.

School: St Kilian's Deutsche Schule

County: Dublin

Teacher: Fiona Martin

Student(s): Anders Chau, Aarnav Anand

1502

Title: What Effect Does Blue Light Have On Our Sleep?

Overview: We are looking at the effect blue light has on our sleep using the technology in Fitbits

School: Holy Faith Secondary School

County: Dublin

Teacher: Maria O'Sullivan

Student(s): Phoenix Hickson-Pitt, Marianne McGovern

1503

Title: Impact of Periods on Academic Life

Overview: An investigation into the effects of menstruation on academic experience, focused on the physical and mental challenges affecting exam and classroom performance.

School: Loreto College

County: Dublin

Teacher: Katie Kinkaid

Student(s): Hope Gallagher, Elizabeth Troup, Zihan He

1504

Title: The Pink Tax - Wealth over Women

Overview: A project investigating, analyzing and verifying the 'Pink Tax', or the unfair pricing of female products

School: Loreto College

County: Cavan

Teacher: Collette Fay

Student(s): Kayla Conaty Hicks, Sarah Smith, Mikayla Daly

1505

Title: From Grave to Blaze:

Uncovering the Cremation Craze

Overview: This project focuses on figuring out why more people in Ireland are choosing cremation over traditional burials and what influences this decision for people

School: Loreto College

County: Cavan

Teacher: Laura Gilleece

Student(s): Aiveen Sexton, Sadhbh Daly

1506

Title: Does colour affect our memory's

Overview: We are testing to see if we memorise words better on white paper, coloured paper or in a coloured room.

School: Loreto Secondary School

County: Kilkenny

Teacher: Brendan Williams

Student(s): Evie Kwong, Sadhbh Muldowney, Caoimhe Phelan

1507

Title: Does age and gender affect your ability to comprehend and deal with certain social situations?

Overview: Does your age and gender throughout teenage years affect your ability to comprehend/deal with certain social situations.

School: Loreto Secondary School

County: Kilkenny

Teacher: Brendan Williams

Student(s): Jill Dempsey, Ruby Cotter, Annabelle Hally

1508

Title: Are brunettes actually smarter than blondes?

Overview: Our project is an investigation of the theory that brunettes are smarter than blondes. We want to see if this is true.

School: Loreto Secondary School

County: Kilkenny

Teacher: Brendan Williams

Student(s): Aoibhe Joy, Ava Phelan

1509

Title: How can we develop a programme to engage teenage girls in physical activity?

Overview: This project will examine how we can develop an engaging programme for teenage girls to increase their level of physical activity.

School: Loreto Secondary School

County: Kilkenny

Teacher: Brendan Williams

Student(s): Laura Ryan, Grace Mullaney, Leah Marie Fogarty

1510

Title: Combating Homelessness: How Can Water Help?

Overview: We are investigating whether water bodies can be used to combat the housing crisis and provide a living space for homeless people.

School: St Marys College

County: Wicklow

Teacher: Joanne English

Student(s): Alice Giles, Olivia Coey

1511

Title: I'm too texty for My Car

Overview: To test whether participants attitudes towards texting whilst driving is effected by participation in a VR Safe driving programme and create a information campaign.

School: St Marys College

County: Wicklow

Teacher: Joanne English

Student(s): Ciara Hughes, Bronwyn Crummy

1512

Title: A statistical analysis of the lasting impact of Governments Covid's protocols on adolescent social anxiety and social isolation which is reflected in absenteeism at post primary level.

Overview: In a post Covid world are there sustained levels of anxiety in adolescents aged 12-18 and is this contributing to absenteeism at post primary level?

School: St Marys College

County: Wicklow

Teacher: Joanne English

Student(s): Jenna Hampson, Amelia Puchalska,

1513

Title: More Mess Less Stress?

Overview: "Are messy people happier?". In this behavioural study, we hope to determine if there is a link between untidy people and overall wellbeing and happiness.

School: Árdcoil Uí Urmoltaigh

County: Cork

Teacher: Paul Bouchier

Student(s): Donagh Flynn, Ben Coffey, Eoin Maguire

1514

Title: Female adolescents perceptions on the dangers of acrylic nail extensions and less harmful alternatives

Overview: Female adolescents perceptions on the dangers of acrylic nail extensions and less harmful alternatives

School: Loreto Secondary School

County: Cork

Teacher: Sarah Jane Brady

Student(s): Luci Twomey, Kayla Whelan

1515

Title: An investigation into whether particular phobias are more common among certain age and gender groups.

Overview: A study into how gender and age affect the prevalence and types of phobias experienced.

School: St Mary's Secondary

School Macroom

County: Cork

Teacher: Shannen Foley

Student(s): Aleksandra Wachowska, Ava McSweeney

1516

Title: Are the younger generation aware of the challenges people with ASD face on a daily basis?

Overview: Our project is researching whether the younger generation have an understanding of the challenges involved with people who have ASD.

School: St Mary's Secondary

School Macroom

County: Cork

Teacher: Shannen Foley

Student(s): Keirsha O'Hare, Aisling Twomey

1517

Title: Wilder farms-An investigation into farmers attitudes towards rewilding and reforestation of farmland in Ireland

Overview: We decided to investigate rewilding to increase biodiversity and help us in our ongoing fight against climate change.

School: St Mary's Secondary

School Macroom

County: Cork

Teacher: Shannen Foley

Student(s): Amy McCullagh, Ella White

1518

Title: An analysis of Irish people's attitudes towards electric cars and Ireland's preparedness to go fully electric.

Overview: Investigating Irish public's attitude towards electric cars and Ireland's preparedness to go fully electric.

School: St Mary's Secondary School Macroom

County: Cork

Teacher: Shannen Foley

Student(s): Orlagh McBride, Sarah Lyons, Róisín O'Connor

1519

Title: "I can't wait for the bypass!" - An investigation into whether the N22 Baile Bhuirne-Macroom bypass really benefits the locals of Macroom.

Overview: Our project aims to analyse whether the N22 Macroom/Baile Bhuirne bypass benefits the locals in our area, looking at the Economical, Environmental and Social impacts.

School: St Mary's Secondary School Macroom

County: Cork

Teacher: Shannen Foley

Student(s): Leah Bradley, Tara Lane, Ellie Walsh

1520

Title: Why should Snapchat terrify you?

Overview: Our project seeks to collect information about Snapchat and the potential risks associated with its usage, particularly in relation to the user's chosen privacy settings.

School: St Mary's Secondary School Macroom

County: Cork

Teacher: Jennifer Butler

Student(s): Beatris Prelipcean, Nelly Gdaniec, Elizabeth O'Donovan

1521

Title: Does Our Generation Have a Shorter Attention Span Than Previous Generations?

Overview: We plan to investigate if excessive social media consumption has a detrimental effect on young peoples attention span compared to older generations.

School: St Mary's High School

County: Cork

Teacher: Michelle O' Driscoll

Student(s): Pippa Hennessy, Rania Moussa

1522

Title: Beyond the H-PAT: Advancing Medical Competency

Overview: H-PAT, introduced in 2009, aims to address the reliance on Leaving Certificate scores for medical degrees, we investigate the relation of H-PAT and medical competency.

School: Christian Brothers College

County: Cork

Teacher: Michelle O' Brien

Student(s): Luke MacMullan, Guan Hui Lin, Henry Michael Ireland

1523

Title: A statistical investigation into how positive, negative and neutral verbal reinforcement influences performance of teenage girls in physical activity

Overview: We aim to find out whether positive, negative or neutral verbal reinforcement is most beneficial to teenage girls aged 14-19 participating in physical activity.

School: Regina Mundi College

County: Cork

Teacher: Ger O'Donovan

Student(s): Molly O'Sullivan, Eve Mullins

1525

Title: Liar! Liar! Pants on Fire! An investigation to see if people conceal their true feelings about immigration using a polygraph test

Overview: The aim of our project is to investigate if people conceal their true feelings about immigration because of peer pressure using a polygraph test.

School: St Vincent's Secondary School

County: Louth

Teacher: John White

Student(s): Julia Van Coller, Dearbhla Rooney

1526

Title: 60 years of BTYSE

Overview: Our aim is to investigate the success of the BT Young Scientist Exhibition in Ireland over the 60 years it has run.

School: Scoil Pól

County: Limerick

Teacher: Grace Garvey

Student(s): Karen Guerin, Cian Daly

1527

Title: Senior Citizens Embracing Technology: An investigation into the psychological impact that technology had/did not have on Senior Citizens during Covid-19.

Overview: Has Covid-19 resulted in an increased usage rate

of technology in the lives of senior citizens and what has the psychological impact been?

School: Ardscoil Ris

County: Limerick

Teacher: Diane Condon

Student(s): Gerry Moroney, Diarmuid Coughlan, Louis Costelloe

1528

Title: Investigating the impact of social media on Irish adolescent attitudes towards vaping.

Overview: This project will investigate the impact of social media on adolescent attitudes towards vaping by conducting a survey of adolescents and analysing social media content

School: Loreto Secondary School

County: Meath

Teacher: Lisa Darley

Student(s): Varvara Obukhovskaia, Weronika Kwasniowska

1529

Title: SOS (Shut Out Strangers) - A workshop delivered to targets by targets themselves.

Overview: The SOS team have designed a three part workshop aimed at younger and more vulnerable students to help them identify online threats and strangers.

School: Sancta Maria College

County: Mayo

Teacher: Caoimhe Lynn

Student(s): Jade Clifford, Sylvie Neuhaus, Saoirse Morrison

1530

Title: Viva los vegas

Overview: Our project aims to investigate how individuals of different ages perceive patterns to 'predict' what may happen in the future specifically in the field of gambling.

School: Ursuline College

County: Sligo

Teacher: Anthony Carolan

Student(s): Caoimhe Morgan, Kate O' Donovan, Kaylah Boyle

1531

Title: What is the effect of music on creative thinking in junior and senior cycle students

Overview: We are studying the effects of different music styles on creative thinking to discover how to make study more efficient

School: Sligo Grammar School

County: Sligo

Teacher: Michelle Higgins

Student(s): Trevor Horan, Callum Scott

1532

Title: Docu-Tok.

Overview: One group of students watch a full documentary, another watches the documentary split into multiple tiktoks, both groups will be tested about documentary +experience afterwards.

School: Le Cheile Secondary School

County: Dublin

Teacher: Ciara Sheehan

Student(s): Ava Power Martin, Leah Moore, Yuvonne Nwabiakam

1533

Title: What is the best AI chat bot

Overview: Use several AI chat bot and see which has the best abilities

School: Galway City & Oranmore Educate Together Secondary School

County: Galway

Teacher: James Frawley

Student(s): Yuga Nakamura, Fumiya Nakamura

1534

Title: The Plant Based Truth

Overview: Investigating the vegan diet to get a greater understanding of the benefits, risks and adolescent opinions regarding animal welfare, human health and the environment.

School: St. Brogan's College, Bandon

County: Cork

Teacher: Sara Hurley

Student(s): Emma McCarthy, Maebh Doyle

1535

Title: How safe are our Irish roads?

Overview: In this project, we wish to outline the dangers and safety issues of our Irish roads and investigate the main causes of road casualties.

School: St. Brogan's College, Bandon

County: Cork

Teacher: Sara Hurley

Student(s): Caoimhe Ryan, Ella O'Driscoll, Eabha Devereux

1536

Title: An investigation into the attitude of Irish consumers towards food preservation by irradiation with the view of identifying and addressing prevailing misconceptions

Overview: This research aims to delve into the attitudes, knowledge, and preferences of Irish consumers concerning food irradiation, shedding light on factors influencing its acceptance.

School: Colaiste Treasa

County: Cork
Teacher: Brid Anne O'Donoghue
Student(s): Ann Marie Healy, Aoife Buckley

1537

Title: Women in Agriculture
Overview: We are mapping the visibility, equality, status and experiences of women in Irish agriculture.
School: Coláiste Fionnchua
County: Cork
Teacher: Karen Murphy
Student(s): Sophie O'Shea, Martha McDonald

1538

Title: The effects of decision fatigue from social media on the exam performances of teenagers
Overview: Investigating the effects of decision fatigue from social media on teenagers' ability to persevere in an exam setting.
School: Coláiste Choilm
County: Cork
Teacher: Paudie Scanlon
Student(s): Mairéad Stapleton, Abby Clifford

1539

Title: A Comparative Study of Multitasking Abilities in Males and Females
Overview: Who are the best multitaskers: To investigate the effect of gender and age on multitasking performance.
School: Coláiste Choilm
County: Cork
Teacher: Karina Lyne
Student(s): Sophie Dromey, Sarah O'Connell

1540

Title: Do Online Reviews Matter? A Gender Based Analysis
Overview: Our project investigates the influence of online reviews on consumers' choices. Specifically, whether gender impacts the influence reviews have on consumer choice.
School: Coláiste Choilm
County: Cork
Teacher: Karina Lyne
Student(s): Ella Ní Icí, Sarah Ní Mhurchú

1541

Title: Academic Escape
Overview: The aim of this project is to investigate if there is any link between people's academic level and their ability to problem solve under pressure.
School: Coláiste Choilm
County: Cork

Teacher: Maurice Shanley
Student(s): Dearbhla O' Sullivan, Beth O' Sullivan

1542

Title: Delivering Science through Storytelling: Is this the Key to a Successful Vaccine Campaign?
Overview: We want to discover the importance that emotive stories play in encouraging vaccine uptake in students compared to using vaccine science information alone.
School: Coláiste Choilm
County: Cork
Teacher: Paudie Scanlon
Student(s): Ali Dromey, Amy Mc Carthy

1543

Title: Pink Tax: Investigating the prevalence, awareness and implications of 'pink tax' on health and beauty products and services.
Overview: Investigating the price disparities between male oriented and female oriented products, the levels of awareness within the public and the causes of this in Ireland.
School: Coláiste Choilm
County: Cork
Teacher: Karina Lyne
Student(s): Erin Comber, Aimee O'Dwyer, Sarah Doyle

1544

Title: The wellbeing of our immigrant and asylum seeking students - is School of Sanctuary the solution.
Overview: An comparative analysis of the effect of the School of Sanctuary initiative on the wellbeing of international students in participating and non-participating schools.
School: Bunclody Vocational College
County: Wexford
Teacher: Maire Finn
Student(s): Kayla Roche, Evie Bolger

1545

Title: An Investigation into Contemporary Propaganda and a Retrospective on the Evolution of Widespread Misinformation Campaigns
Overview: This project aims to research propaganda, its evolution, the many forms modern propaganda takes, and provide new context to the media shared through the internet.
School: Roscommon Community College
County: Roscommon
Teacher: Elizabeth Glancy
Student(s): Kayla Joyce, Aidan Armasu

1546

Title: Exploring Adolescent Digital Entrepreneurship: A Study Of Participation On Trading Apps
Overview: our project is based on digital entrepreneurship amongst adolescents: a study of participation on trading apps
School: Roscommon Community College
County: Roscommon
Teacher: Elizabeth Glancy
Student(s): Callum Leech, Eoghan Morris, Jamie Lohan

1547

Title: Do lunar phases impact melatonin levels in a child with autism
Overview: Surveying 21,400 parents of children with autism, analysing the impact lunar phases have on melatonin levels in a child with autism over a lunar month.
School: Borrisokane Community College
County: Tipperary
Teacher: Rachel Ahern
Student(s): Kate Finn, Aimee Fitzgerald

1548

Title: An investigation into your socioeconomic background and how it impacts your choice on part-time work when in full-time second-level education.
Overview: We will investigate into people's socioeconomic background with the aim of finding out whether it impacts their decision on part-time work when in full-time education.
School: Borrisokane Community College
County: Tipperary
Teacher: Rachel Ahern
Student(s): Dan Ryan, Adam Bourke

1549

Title: An investigation into a young person's gambling journey
Overview: To investigate a young persons introduction to gambling and whether this develops into a habit. Is gambling a problem for young people in Irish society.
School: Borrisokane Community College
County: Tipperary
Teacher: Rachel Ahern
Student(s): Clodagh Cahalan, Ellen Kennedy

1550

Title: Driven by Data
Overview: To assess road safety knowledge and awareness among people aged 13-19 and use our

findings to inform and develop educational tools for secondary schools.
School: Glanmire Community College
County: Cork
Teacher: Noreen Emerson
Student(s): Aoife Madden, Tianna Savage

1551

Title: Assessing the Proportions of Intrinsically Motivated Versus Extrinsically Motivated Students
Overview: Our project is based on assessing the proportion of extrinsically motivated students compared to intrinsically motivated students. In addition, we plan to do an intervention
School: Glanmire Community College
County: Cork
Teacher: Megan Murphy
Student(s): Laura McSweeney, Karina Casey

1552

Title: An investigation into the surrendering of dogs to shelters in the aftermath of the COVID-19 pandemic and the associated factors
Overview: A statistical analysis of dogs surrendered to dog shelters before, during, and after COVID-19.
School: Coláiste Iósaeaf
County: Limerick
Teacher: David Owens
Student(s): Erin Woulfe, Killian O'Brien

1553

Title: Prevalence of excessive phone screen time in adolescents and associated factors in an Irish school
Overview: An investigation into the phone screen time of students and associated factors in an Irish secondary school.
School: Coláiste Iósaeaf
County: Limerick
Teacher: David Owens
Student(s): Grainne O' Reilly, Clara Parkinson

1554

Title: Sruthú nó Gan Sruthú: Forbairt nó meath ar chultúr na tíre seo.
 To Stream or not to Stream: The Development or Decline in Irish culture.
Overview: Investigating if the demand for streaming services in Ireland has encouraged a decline in our national broadcasting channels (RTÉ..) and our national culture.
School: Gaelcholáiste Luimnigh
County: Limerick

Teacher: Anne Marie Fitzgerald
Student(s): Dearbhail O Connor, Neasa Ní Ifeanáin

1555

Title: Climate Policies: A Mission or a Mindfield?

Overview: Our project aims to investigate a person's understanding of companies' climate policy language to create a tool to increase people's understanding of said policies.

School: Gaelcholáiste Luimnigh

County: Limerick

Teacher: Anne Marie Fitzgerald

Student(s): Aidan Keane, Niall Nestor

1556

Title: An tionchar atá ag do áit sa chlann ar do scilleanna cumarsáide agus conas gur féidir le tuismitheoirí tacú lena pháistí dá bharr.

The effects of a persons placement in their family on their communication skills and how parents can help.

Overview: Beimid ag úsáid suirbhé chun staitisticí a bhailliú faoin tionchar a mbíonn ag áit duine sa chlann ar scilleanna cumarsáide. Ansin cuirimid moltaí le chéile.

We will find how placement in families can affect a persons communication skills and put together recommendations for parents when raising their children.

School: Gaelcholáiste Charraig Ui Leighin

County: Cork

Teacher: Rónán Ó Muirí

Student(s): Liath Ní Mhaoláin, Kate Mahony, Sarina Morley

1557

Title: An investigation into the impact of the covid 19 on hygiene ethic

Overview: My project aim is to find out did the Covid 19 pandemic changed peoples hygiene practices

School: Ballincollig Community School

County: Cork

Teacher: David O'Brien

Student(s): Isaac Mullins, Kamil Gawlik, Sean Oraguy

1558

Title: Bystander Culture

Overview: We want to look at the role of the bystander in preventing and managing bullying. We want to investigate why people are inactive bystanders.

School: Coláiste Pobail Bheanntaí

County: Cork

Teacher: Sharon Kingston
Student(s): Lisa O'Sullivan, Alice Byrne, Joshua O'Donovan

1559

Title: Misconceptions About ASD

Overview: We want to get rid of misconceptions about autism spectrum disorder (ASD) and educate our communities to better respect autistic people.

School: St. Tiernan's Community School

County: Dublin

Teacher: Cathal Curry

Student(s): August Costigan, Serena Walsh

1560

Title: "If you repeat a lie often enough, people will believe it." - An analysis of the correlation between age and how we perceive online misinformation.

Overview: We will assess groups of people aged 16-18 and groups aged 55+ to see if being older makes you more likely to believe fake news.

School: Tullow Community School

County: Carlow

Teacher: Emma Kavanagh

Student(s): Ódhran Maxwell, Carrie Byrne

1561

Title: Cash or Clicks; The Evolution of Currency in the Digital Age

Overview: Our project aims to investigate if cash is becoming obsolete commercially

School: Castlecomer Community School

County: Kilkenny

Teacher: Fiona Morrissey

Student(s): Sarah Mooney, Erin Bradish

1562

Title: Group versus individual study; which wins the science of success?

Overview: We aim to investigate the pros and cons of both group and individual study and figure out which environment provides better exam results.

School: Castlecomer Community School

County: Kilkenny

Teacher: Fiona Morrissey

Student(s): Hugh Quirke, Evan Staunton, Thomas Shore

1563

Title: Statistical Analysis of the benefits, or not of mandatory driving lessons on road traffic fatalities

Overview: Our project aims to find

out if mandatory driving lessons have made Irish roads safer since 2011, the date on which they became mandatory.

School: Millstreet Community School

County: Cork

Teacher: Jennifer O'Donoghue

Student(s): Emily Morris Murray, Abbie Linehan, Tara Kelleher

1564

Title: An investigation of teachers' ability to discern between assignments submitted by students' vs generated by A.I.

Overview: This investigation aims to explore whether teachers can discern A.I. essays from student written assignments.

School: Ballinteer Community School

County: Dublin

Teacher: Conor Mc Grath

Student(s): Leah Jennings, Layla-Grace White

1565

Title: An analysis on how different support structures impacts adolescent success in sport

Overview: Our project aim is to analyse family and club support and their importance to adolescent success in sport

School: Kinsale Community School

County: Cork

Teacher: Shaun Holly

Student(s): Alison Dennehy, Catherine Murphy

1566

Title: Do physical reactions to emotions lose intensity over time?

Overview: We will be interviewing people to see if they become less affected physically by emotions they may feel if exposed to media social situations.

School: Boyne Community School

County: Meath

Teacher: Danny Mungovan

Student(s): Caoilinn Murray, Milly McKay, Aoibhe Kinsella

1567

Title: 'Elderly Forgotten?' - Digital exclusion in the Information Age and the Rising Grey Digital Divide.

Overview: Our project proposes to analyse how our elderly generation struggles daily in the digital world thus disconnecting them from our generation.

School: Skibbereen Community School

County: Cork

Teacher: Mags Breen

Student(s): Éabha O'Donovan, Emily O'Donovan, Aoife O' Driscoll

1568

Title: Let's Grade Our First Aid

Overview: Our project aims to examine secondary schools across Ireland and how well they're equipped to handle a first aid event.

School: Skibbereen Community School

County: Cork

Teacher: Carla Nugent

Student(s): Abigail Fowler, Katelyn Hourihane, Rebecca O' Regan

1569

Title: Are our bus routes effective?

Overview: Our project examines the bus routes at our school and see whether they are operating the most efficient way.

School: Ballinamore Community School

County: Leitrim

Teacher: Eamon Geoghegan

Student(s): Ava Gaffney, Nicole Kellett

1570

Title: The development of internalized stereotypes based on appearance in adolescence due to environment

Overview: We'll be researching how the development of stereotypes based on appearance is affected in adolescence because of environmental factors and the issues it causes

School: Ballincollig Community School

County: Cork

Teacher: David O'Brien

Student(s): Kristiina Olo, Yes Bucha

1571

Title: The Secret to Successful Studying

Overview: We are investigating the neurodivergent groups of ADHD and dyslexia in the hope to discover an easier way for them to study and retain information.

School: Eureka Secondary School

County: Meath

Teacher: Chloe Sheridan

Student(s): Danu McGann, Eloise Finucane, Bronwyn Corcoran

1572

Title: Does exercise affect your memory?

Overview: We are trying to figure out if your memory can be influenced by exercise.

School: Avondale Community College

County: Wicklow

Teacher: Aileen Wall-Adderley

Student(s): Daniel Sheridan, Alex Kinsella

1573

Title: Does the average weekly time spent playing videogames correlate to student's reaction time and visual memory skills.

Overview: Our study aims to measure the reaction time and visual memory skills of students and investigate if this is related to time spent playing videogames.

School: Ballinater Community School

County: Dublin

Teacher: Conor Mc Grath

Student(s): Alvaro Gonzalez Fernandez, Marco Benavente de la Puente, Liam Bautista Mogas

1574

Title: 'Lights Out' Investigating the Effect of Sleep Deprivation on Cognitive Function and Social Behaviour in Irish Adolescents

Overview: Investigating whether or not a lack of sleep has a correlation with cognitive performance and social behaviour.

School: Dunmore Community School

County: Galway

Teacher: Elaine McGinty

Student(s): Jack Mannix, Ellen Gilmore, Conor Moloney

1575

Title: The Fatality of Forgetfulness - Should people retake their driver theory test?

Overview: Our project aims to collect data on people's knowledge of road safety and analyse if people should retake their driving test as they get older.

School: Bandon Grammar School

County: Cork

Teacher: Seamus Hayes

Student(s): Heather Hayden, Meera Vithaldas

SENIOR GROUP

1600

Title: Why do we trust?

Overview: Testing gullibility and trustworthiness based on predetermined factors

School: St Joseph's Secondary School

County: Dublin

Teacher: Kevin Delahunty

Student(s): Lucas Price, Olivia Browne, Alex Cunningham

1601

Title: Would people move to an island if given the necessities?

Overview: We will carry out

research to see if people will live on desolate islands on Irish waters.

School: Presentation Secondary School Listowel

County: Kerry

Teacher: Catherine Kennedy

Student(s): Abbie Mazzelle, Emma Heaphy

1602

Title: An investigation into the different factors influencing a person's ability, to follow written instruction.

Overview: Investigating different modern stimuli on a person's ability to follow simple instruction on how to make an origami piece

School: Newbridge College

County: Kildare

Teacher: Anne Marie Davis

Student(s): Ruby Hennessy, Tara Browne, James Brophy

1603

Title: Public Perception and Social Acceptance of Wind Turbines

Overview: We sent out a survey to people regarding their attitudes towards wind turbines to see if they were positive or negative

School: St Pauls Secondary School

County: Kildare

Teacher: Emily Woods

Student(s): Aoibhe Lovern, Niamh Perry, Sheona Redmond

1604

Title: Artificial Intelligence In Education - Friend or Foe?

Overview: Investigating whether artificial intelligence would be a threat or an asset to the education system.

School: Colaiste Mhuire

County: Westmeath

Teacher: Eva Acton

Student(s): John Bernard Basañes, Maksymilian Surowiec, Nikita Bickovs

1605

Title: Implementing Financial Literacy and Investing In Irish Teens

Overview: Empowering Irish teens through a financial literacy app, stock screener program, and a custom index, enabling informed investing for future returns and Ireland's economic growth.

School: Colaiste Mhuire

County: Westmeath

Teacher: Eva Acton

Student(s): Charlie Dupuis, Hubert Kozlowski, Dylan Kennedy

1606

Title: Anchor

Overview: Anchor is an app that helps those who didn't complete

their education, and for those who suffer from anxiety, isolation, and other mental health issues.

School: Colaiste Mhuire

County: Westmeath

Teacher: Eva Acton

Student(s): Seán Murphy, Ethan Tanudra, Max Buinenko

1607

Title: D&D: Classifying Personality

Overview: RPG players will fill out a personality survey and be asked their preferred class to play. Data will be analysed to find correlations.

School: Wilson's Hospital School

County: Westmeath

Teacher: Siobhán Devaney

Student(s): Vaughan Riley Sheahan, Ciara Boylan

1608

Title: Bloodwork

Overview: Blood supply and organ donation-misinterpretations

School: Coláiste Muire Máthair

County: Galway

Teacher: Sinéad Phillips

Student(s): Samuel Shomefun, Destiny Ajiboye

1609

Title: Feeling flat? An analysis of car tyre pressure and its safety implications.

Overview: A statistical analysis of whether or not drivers are aware of their tyre pressure and how tyre pressure poses risks on the road.

School: Coláiste Muire Máthair

County: Galway

Teacher: Anthony Carey

Student(s): Milana Sinicina, Jean Harlamovs

1610

Title: Mind the gap: unravelling student study habits

Overview: We aim to investigate how the intention-action gap effects junior and senior cycle students study patterns, mental health and motivations.

School: Tallaght Community School

County: Dublin

Teacher: Kate O' Gorman

Student(s): Ashlee Keogh, Aimee Keogh

1611

Title: Gender bias in Lego products and its impact on stem skills development and confidence for teenagers interested in FIRST LEGO League robotics

Overview: Looking at Lego

products and our students experience and confidence in

engineering and construction skills gained during Lego play.

School: Presentation College

County: Dublin

Teacher: Jennifer Kelly

Student(s): Gana Sharaby, Rhianna Bandera

1612

Title: Tagged walls and teenage tales: Unveiling the secrets behind graffiti in Secondary school bathrooms.

Overview: The aim of project is to determine the psychology behind student's who graffiti on school property within post-primary schools bathrooms in Ireland

School: Roscommon Community College

County: Roscommon

Teacher: Elizabeth Glancy

Student(s): Hollie Servis-Thorpe, Erin Hayes

JUNIOR INDIVIDUAL

2100

Title: Gravitational Lensing Simulation Using python
Overview: A Gravitational lensing simulation using Python to help explore variations in light wavelength caused by large singularities
School: Coláiste Phádraig CBS
County: Dublin
Teacher: Kevin Carey
Student(s): Tadhg Bohan

2101

Title: Guardian of the Hidden Galaxy Clusters
Overview: This project will investigate the relationship between gravitational lensing and the distribution of matter in galaxy clusters.
School: Loreto Secondary School
County: Meath
Teacher: Lisa Darley
Student(s): Shauna Esmonde

2102

Title: Go With The Flow
Overview: Using compact water sensors to monitor water current intensity and display this information to the public
School: St Joseph's Secondary School
County: Dublin
Teacher: Helen Teehan
Student(s): Louis Monks

2103

Title: "Tribology" Understanding its potential to reduce CO₂ emissions.
Overview: Tribology is the study of wear and friction, understanding thus allows us to utilise its potential to minimise friction, thus reducing the use to fuels.
School: Desmond College
County: Limerick
Teacher: Donal Enright
Student(s): Dumitras Mocanu

INTERMEDIATE INDIVIDUAL

2200

Title: The development of natural oil based sunscreens part II
Overview: The development and testing of a safe natural oil-based sunscreen containing the conjugated hydrocarbon Lycopene which can be obtained from the skin of tomatoes.
School: St Mary's College
County: Derry-Londonderry
Teacher: Ann Blanking MBE
Student(s): Kaycee Deery

2201

Title: The -UV light- full way to recycle! An Investigative Analysis into the Effect of UV Treatment and Mechanical Chopping on the Degradation of Compostable Polylactic Acid
Overview: This project aims to determine the effectiveness of UVC pre-treatment and mechanical chopping on the degradation of polylactic acid (PLA) plastic.
School: Rockford Manor Secondary School
County: Dublin
Teacher: Bridin Dwyer
Student(s): Rosheen Sharma

2202

Title: Optimizing Traffic
Overview: Using Mathematical optimizing model to optimize Dublin's Bus transport network, reduce traffic congestion.
School: Loreto High School
County: Dublin
Teacher: Lisa Ryan
Student(s): Christine Xinyue Huang

2203

Title: A measurement of the variance in uniformity of background radiation fields
Overview: The difference in variation of Geiger-Muller counters measuring background radiation; and mapping the radiation in my school.
School: St Joseph's Secondary School
County: Dublin
Teacher: Daniel Murray
Student(s): Zuzanna Komon

2204

Title: Serene sonics; investigating the use of binaural tones to alter brain waves
Overview: My project is concerned with investigating the effect of binaural tones on human brain wave patterns, for the purpose of cognitive efficiency.
School: Ursuline College
County: Sligo
Teacher: Anthony Carolan
Student(s): Bláithín Brady

2205

Title: Music is in Everything: Mathematics of Music
Overview: Substitute numbers for every note in a musical piece and seeing what patterns arise and then comparing pieces to see similarities or differences
School: St Andrews College
County: Dublin

Teacher: Emily Casey
Student(s): Jakub Kurawski

2206

Title: An Investigation into the Relationship Between Precipitation and Water Levels in Turloughs in the Burren
Overview: I am looking at how precipitation affects the level of water in turloughs in North Clare and how quickly the effect of precipitation is seen.
School: Mary Immaculate Secondary School
County: Clare
Teacher: John Sims
Student(s): Oisín Jackson

2207

Title: Can biochar be used in the construction industry to reduce carbon emissions
Overview: I am looking at the feasibility of using biochar as an additive to concrete to improve its strength and insulation qualities.
School: Mary Immaculate Secondary School
County: Clare
Teacher: John Sims
Student(s): Ella Mooney

2208

Title: How Random is Chess
Overview: I will examine if chess moves are random or predictable
School: Bandon Grammar School
County: Cork
Teacher: Maire Flynn
Student(s): Brendan Forrest

2209

Title: An Analysis of the Impact of Extreme Traffic Congestion on Local Air Quality and Commuters' Daily Lives
Overview: My project is investigating the impact of extreme traffic congestion in my local area on air quality and driver wellbeing.
School: Colaiste Muire
County: Cork
Teacher: Bridget Lehane
Student(s): Ethel D'Alton Bateman

2210

Title: Biomaterials and Bioplastics. A focus towards a circular economy
Overview: Exploring the potential applications of novel bioplastics and biomaterials derived from natural sources and waste. As well as showcasing their versatility in different fields.
School: Presentation College Headford
County: Galway
Teacher: John Toner

Student(s): Angelina O'Neill

2211

Title: Using game theory to solve Catan
Overview: I used game theory and AI to find the ideal strategy to play and win in the board game Catan.
School: Mercy Secondary School Mounthawk
County: Kerry
Teacher: Eimear Nolan
Student(s): Benedek Hernold-Csorba

2212

Title: Investigation Into the Health Benefits of Algal Pigments
Overview: Looking into the positive health implications of marine carotenoids such as fucoxanthin for medical usage.
School: Mercy Secondary School Mounthawk
County: Kerry
Teacher: Eimear Nolan
Student(s): Marc O'Connor

2213

Title: Testing the Effectiveness of Different Antacids
Overview: I am seeking which among a group of antacids is the most effective at relieving indigestion
School: Colaiste Chiarain
County: Limerick
Teacher: Edel Farrell
Student(s): Ruben Massey

2214

Title: Making sustainable bio-fabrics from seaweed
Overview: This project aims to create sustainable biofabrics from seaweed so that I can hopefully lessen the amount of waste generated by fast fashion.
School: Colaiste Chiarain
County: Limerick
Teacher: Edel Farrell
Student(s): Lillie Li

2215

Title: Crime Scene Glow
Overview: Forensic scientists use luminol to make blood glow blue in crime scenes. In this chemistry project I will investigate what factors make it light up.
School: Comeragh College
County: Tipperary
Teacher: Andrea O'Donnell
Student(s): Eugene Chelyakh

2216

Title: The Physics of shotput: Adapting techniques for Para athletes

Overview: Investigating and researching shot put techniques that would be suitable for para athletes with dwarfism and cerebral palsy to get the best performance possible
School: Enfield Community College
County: Meath
Teacher: Emma Daniel
Student(s): Liam Kinsella

2217

Title: Creation of a Wormhole through Quantum Field Interactions
Overview: I seek to demonstrate that wormholes can form via scalar and vacuum field interactions near a black hole's event horizon.
School: Greystones Community College
County: Wicklow
Teacher: Zoe Devlin
Student(s): Jack Walsh

2218

Title: The Math Behind Dobble
Overview: How to make Dobble decks of cards of different sizes? In a Dobble deck any 2 cards have exactly one common image.
School: St Kilian's Deutsche Schule
County: Dublin
Teacher: Tanja Bader
Student(s): Soňa Pearlmutter

SENIOR INDIVIDUAL

2301

Title: Mathematical Model for predicting performance in Cricket through Social, Behavioral, Skill and Market factors
Overview: Analyzing Cricket statistics to devise an advanced metric-based model that is an overall indicator of a player's performance and their contribution to a match outcome
School: Mount Anville Secondary School
County: Dublin
Teacher: Niall McGrath
Student(s): Saachi Singh

2302

Title: Sound of Tensegrity
Overview: I will be creating an instrument using principles of tensegrity solids, with strings

acting as prestressed components
School: Newbridge College
County: Kildare
Teacher: Dermot Walsh
Student(s): Joanna Lipska

2303

Title: Seasonal Chemical Storage for Irish Solar Thermal Systems

Overview: I am investigating an adsorptive salt, chemical storage process to facilitate seasonal storage of heat collected with thermal solar panels in Irish homes.
School: Presentation College Athenry
County: Galway
Teacher: Kenneth O'Dea
Student(s): Samuel Regan

2304

Title: An analysis of the impact of Galway city on the water wellness of the Corrib River
Overview: My project aims to investigate the water wellness in the Corrib River chemically by analyzing water samples collected from various different stages of the river.
School: Coláiste Muire Máthair
County: Galway
Teacher: Anthony Carey
Student(s): Ruihan Wu

2305

Title: A 4-Stage Advancement Towards Direct Air Capture
Overview: A novel and scalable approach towards carbon dioxide sequestration through a passively activated Direct Air Capture system.
School: St. Brogan's College, Bandon
County: Cork
Teacher: Michael Connern
Student(s): Tomás Markey

2306

Title: Which beach sand in Co. Louth has the most microplastics?
Overview: Investigation of the microplastic content of beach sand across Co. Louth, utilising dehydration and flocculation.
School: Coláiste Chú Chulainn
County: Louth
Teacher: Deirdre Dunford
Student(s): Lorcán Garvin

2307

Title: Níos mó Fuacht, Níos mó Cumhacht? Colder, Faster?
Overview: Ag fhéachaint air an éifeacht a bhaineann le aershreabhadh ar ríomhaire pearsanta. Looking at the effects of airflow on a personal computer.
School: Gaelcholáiste Charraig Uí Leighin
County: Cork
Teacher: Rónán Ó Muirí
Student(s): Alex Neff

JUNIOR GROUP

2400

Title: Truth or Myth: Can tinsel and other materials and substances mess with our Wi-Fi signals?
Overview: Can tinsel interfere with Wi-Fi signals? We want to investigate a range of materials to see if they can affect Wi-Fi signals.
School: St Cecilia's College
County: Derry-Londonderry
Teacher: Kerry Conaghan
Student(s): Caoimhe Wilson, Ava McGill, Erin Wilson

2401

Title: Possible ways to prevent home printed insurance discs fading in the sun
Overview: To possibly create a coating or a cover for insurance discs to stop them from fading in the sun over time.
School: Presentation College Headford
County: Galway
Teacher: Deirdre Halleran
Student(s): Olwen Morrissey, Julia Ochman, Grace Reilly

2402

Title: An 'egg'citing way to treat phosphate run off in Lough Neagh
Overview: At minute Lough Neagh is contaminated with poisonous blue green algae - there are several factors affecting this - one them is excessive phosphate levels.
School: St Colman's College
County: Down
Teacher: Pauline Crowl
Student(s): Ronan Scullion, Laochra Hill

2403

Title: Generalisations of Marion Walter's Theorem
Overview: Marion Walter's Theorem is a relatively recent result in Euclidean geometry. We provide new proofs of her theorem and several generalisations of it.
School: Christian Brothers, Synge St.
County: Dublin
Teacher: Kate Walsh
Student(s): Sagnik Das, Sahibjit Singh

2404

Title: Optimised biodegradable plastic
Overview: Our project is improving upon the already existing bioplastic formula. In turn making it a more viable option for tackling climate change
School: Gonzaga College

County: Dublin
Teacher: Diego Alexandre Cavallaro
Student(s): Jakub David Roberts, Thomas Michael Pegum

2405

Title: An calc is fearr i gcomhair dreapadóirí
Overview: We want to test out the differences between different types of chalk. We want to see which chalk has the best grip strength.
School: Colaiste An Phiarsaigh
County: Cork
Teacher: Caoimhín Ó Buachalla
Student(s): Sarah Ní Ghógáin, Carly Ní Chondúin

2406

Title: An Investigation Into How Different Fibre Surfaces in Indoor Horse Riding Arenas Absorb Impact from Falls
Overview: We aim to compare the capacity to absorb physical impact of silica sand mixed with a range of fibres in varying ratios.
School: St Aloysius School
County: Cork
Teacher: Katie O'Donovan
Student(s): Aisling Twomey, Elsie Cubie

2407

Title: An Investigation Into How Various Types of Rope Degrade in Various Types of Water
Overview: To investigate how different kinds of rope react from being submerged in various types of water, while seeing the effects (environmental/physical)
School: St Aloysius School
County: Cork
Teacher: Katie O'Donovan
Student(s): Saoirse O'Herlihy, Elaine Lane, Abi Foley

2408

Title: How can the mechanics in origami be applied to modern engineering.
Overview: We aim to study the mathematical principles of origami, and apply them to packaging, in order to optimise package efficiency without climate impact.
School: Mercy Secondary School Mounthawk
County: Kerry
Teacher: Eimear Nolan
Student(s): Torran Millar, Feidhlim Kevin Ginty, Conan Seino

2409

Title: The Green Goddess Experiment: A comprehensive examination on exploring optimal

Chemical, physical & mathematical sciences

stripe

components for an Eco-friendly Dry Shampoo.

Overview: We will create natural non-carcinogenic dry shampoos and test their effectiveness on removing grease from hair.

School: Virginia College

County: Cavan

Teacher: Kelly Ryan

Student(s): Layla Lavelle, Leona McCullough

2410

Title: Life in Plastic, it's NOT Fantastic!

Overview: Single-use plastics have a negative and harmful effect on the environment, could biodegradable plastics such as hydrogels protect food produce from being damaged during transport?

School: Desmond College

County: Limerick

Teacher: Donal Enright

Student(s): Kinga Tobianska, Paulina Varuyeva

2411

Title: A reflection on light and the physics behind mirrors.

Overview: We propose to investigate the true colour of a mirror as opposed to its reflective colours, by investigating wavelengths and build an infinity mirror.

School: Desmond College

County: Limerick

Teacher: Donal Enright

Student(s): Nell McMahon, Paul Mansfield

2412

Title: An investigated study into the many different usages of photocatalysis

Overview: Discussing how photocatalysis can be used in a very big variety of fields such as photodynamic therapy and to degrade organic pollutants in waste water.

School: Coláiste Dún an Rí

County: Cavan

Teacher: Lorraine Hickey

Student(s): Róisín Lynch, Lorna Hanratty

2413

Title: Are Observatories Seeing as Much as They Can?

Overview: Our project aims to look at what we can see in our skies due to the effect of light pollution.

School: Blackwater Community School

County: Waterford

Teacher: Paul Joyce

Student(s): Saoirse Duffy, Kate Fletcher O Connor, Shauna Deery

2414

Title: Tástáil Baictéir ar Fón.

Testing Bacteria on Phones.

Overview: Using petri dishes, we will test bacteria on 3 different phones after they have been cleaned by different products and conclude which is best.

School: Colaiste An Phiarasigh

County: Cork

Teacher: Caoimhín Ó Buachalla

Student(s): Lily Ní Bhrosnacháin, Reina de Buitléir, Suzie Ní Loinsigh

2415

Title: An investigation into the reliability of weather apps and inability of AI to use historical weather data.

Overview: We wish to streamline the variability between the various weather apps especially a 7 day forecast model using historical weather data.

School: St Josephs College

County: Tipperary

Teacher: Mary Gorey

Student(s): Aoibhe Hassett, Ella Meehan, Ellen O' Meara

2416

Title: Imscrúdú ar éifeachtúlacht Olann gharbh mar inslitheoir tí ailtéarnach.

An investigation into the effectiveness of coarse wool as an alternative for house insulation.

Overview: Is é an smaoineamh tionscadail atá againn ná a thástáil an bhfuil an olann ina inslitheoir níos fearr i gcomparáid le olann plaisteach nó cúr.

Our project idea is to test if sheep wool is a better insulator compared to your regular plastic wool or insulator foam.

School: Coláiste Ailigh

County: Donegal

Teacher: Shane Ó Breacáin

Student(s): Saoirse Gallagher, Sienna Devine

INTERMEDIATE GROUP

2500

Title: Different Club Different Game

Overview: Our project aims to get the difference between different golf clubs and their weights and angles used, and how it is analyzed.

School: Virginia College

County: Cavan

Teacher: Matthew Hynes

Student(s): Sean King, Daniel Lynch

2501

Title: Investigating the effect of mosquito repellents on the efficacy of sunscreens

Overview: Investigating the effect of DEET and non-DEET mosquito repellents on sunscreen efficacy by measuring the transmittance of UV through sunscreens, mosquito repellents and mosquito/sunscreen mixtures.

School: St Mary's College

County: Derry-Londonderry

Teacher: Ann Blanking MBE

Student(s): Grace Dornan, Brianna Mc Colgan

2502

Title: Investigating hydrogels as a drug delivery system part III

Overview: Investigating the use of hydrogels as a drug delivery system using aspirin, paracetamol, ibuprofen and statin.

School: St Mary's College

County: Derry-Londonderry

Teacher: Ann Blanking MBE

Student(s): Rebecca Connolly, Nikitta Morrison

2503

Title: Chronic traumatic encephalopathy (CTE). An investigation of the impact of different balls on a model of the brain

Overview: We will investigate the impact of the different balls on a model of the brain and investigate the protective effect of different materials

School: St Cecilia's College

County: Derry-Londonderry

Teacher: Kerry Conaghan

Student(s): Jessica McGuinness, Amelia O' Neill

2504

Title: How Quickly is Our Climate Changing? - A Study of Wind Trends in Ireland

Overview: Our project studies the changes in climate over the past 20 years by looking at Irish wind speed data and storm frequency and intensity data.

School: The Institute of Education

County: Dublin

Teacher: Catriona Hendry

Student(s): Amy McNamee, Tiffany Huang

2505

Title: Does the Wood that an Acoustic Guitar is Made of Affect the Sound of the Guitar?

Overview: We did an experiment where we recorded three guitars and put the sounds through an oscilloscope and then compared

the frequencies of the sound waves.

School: Blackrock College

County: Dublin

Teacher: Aoibh Steele

Student(s): John McCallig, Calum Burke

2506

Title: The Physics of Table Tennis and how it Improves Your Hand Eye Co-Ordination and Reaction Speed.

Overview: We will study the physics of table tennis and how it improves your hand eye co-ordination and reaction speed, through research and testing.

School: Blackrock College

County: Dublin

Teacher: Aoibh Steele

Student(s): Jack O'Connell, Alex Browne

2507

Title: Clean Streams: An investigation into the different techniques of water sanitisation and an evaluation into their levels of efficiency.

Overview: The project aims to investigate and compare the different methods of water sanitisation and test how effective they are in purifying natural river water.

School: Rockford Manor Secondary School

County: Dublin

Teacher: Tanya Kelly

Student(s): Maeve Bilag, Alicia Duffy

2508

Title: Could a Waste Product, Shells from Locally Landed Shellfish, be used locally by Fruit and Vegetable Growers?

Overview: This project will use chemical analysis to gather data to support to use of sustainable alternative fertilisers in the growing of fruit and vegetables.

School: St Joseph's Secondary School

County: Dublin

Teacher: Helen Teehan

Student(s): Krishiv Thoppe, Tobiasz Szymandera

2509

Title: Comparative Analysis of Vertical Axis Wind Turbines vs Horizontal Axis Wind Turbine Performance

Overview: Comparing the performance of vertical axis wind turbines with a traditional horizontal axis wind turbine under various wind conditions to assess their electricity generation efficiency

School: St Joseph's Secondary School
County: Dublin
Teacher: Helen Teehan
Student(s): Leah Mullen, Liam Doyle, Stephanie Cherish Dan

2510

Title: "ParaFibreBuilds" - Strength in Construction
Overview: Changing the molecular structure of Kevlar® to improve its compressive strength therefore creating a robust building material that will innovate architecture and engineering.
School: Sutton Park School
County: Dublin
Teacher: Joanne Hanratty
Student(s): Ben Ma, Harry King, Oscar Rey

2511

Title: Biofuel Bonanza: Fuelling a Greener Future
Overview: Creating biodiesel using a process called transesterification and testing its heat combustion capabilities using a formula
School: St Andrews College
County: Dublin
Teacher: Emily Casey
Student(s): Olivia Jeacle, Stephanie Lawless

2512

Title: Investigating if AI can help us make better batteries
Overview: We are going to investigate whether we can use AI to test the efficiency of Lithium-Ion, Lithium hybrid, and non-Lithium batteries
School: Stratford College
County: Dublin
Teacher: Helen O'Kelly
Student(s): Ritvik Venkateshwar, Noah Twyford, Hao Wen Liu

2513

Title: Are air-fryers really as healthy as we think?
Overview: We will be investigating the effects that some of the harmful chemicals found in air-frying have on human health
School: St Mary's High School
County: Cork
Teacher: Michelle O' Driscoll
Student(s): Miriam Finn, Kate McEvoy

2514

Title: A Quantitative Analysis of Students' Daily Inhaled Dose of PM2.5 Particles
Overview: Our project aims to find how much PM2.5 students inhale daily as a result of the various activities they are involved in.

School: St Finian's College
County: Westmeath
Teacher: Martina Roache
Student(s): Donagh Carey, Sarah Higgins, Noah Callum Hill

2515

Title: *Shock Rocks*
Overview: Our project is to grow doped piezoelectric crystals in order to see how their voltage compares to a regular one.
School: Loreto Secondary School
County: Meath
Teacher: Lisa Darley
Student(s): Isobel Grimes-Merrigan, Niamh Kearns

2516

Title: Cliseadh Miotal Trom: Cereal Contamination Under the Microscope
Overview: We are investigating the concentrations of heavy metals present in common breakfast cereals and calculating how much cereal would be harmful to people.
School: Sancta Maria College
County: Mayo
Teacher: Caoimhe Lynn
Student(s): Jack Fallon, John Prendergast

2517

Title: An investigation into a new taxonomy of exoplanets
Overview: For this project, we're going to investigate different planets that lie beyond our solar system and create our own new classification system for exoplanets.
School: Coláiste Fionnchua
County: Cork
Teacher: Harry Langley
Student(s): Habiba Dar, Shafa Dar

2518

Title: An investigation to identify PFAS Chemicals in regular and eco-toilet paper brands
Overview: A study on the use of man-made PFA chemicals, used in toilet paper and a study on the quality of eco brands versus regular brands
School: Coláiste Choilm
County: Cork
Teacher: Karina Lyne
Student(s): Ciaran James Paul Murphy, Adam Kelleher

2519

Title: How different wall materials effect the sound of an echo
Overview: We are going to investigate which wall material is more likely to cause an echo
School: Coláiste Choilm
County: Cork

Teacher: Maurice Shanley
Student(s): Annabelle Connolly, Ella O' Sullivan

2520

Title: How to Improve the Teaching of Astronomy
Overview: We intend to create interactive and innovative ways to teach astronomy to 4th year students around Ireland in 11-week modules. We'll create a teacher's tool-kit.
School: Largy College
County: Monaghan
Teacher: Holly May McGovern
Student(s): Sadhbh Bonner, Denisa Horvat

2521

Title: Imscrúdú a dhéanamh ar cumhacht taoide mar fhoinsé fhéideartha fuinnimh ar Inis meáin. Investigating tidal power as a potential energy source on inis meáin.
Overview: Roimhe seo, rinneamar imscrúdú ar shruthanna mar fhoinsé fhéideartha fuinnimh do thithe, anois leathnóimid agus bainimid úsáid as cumhacht taoide mar foinse funnimh. Previously, we investigated streams as a potential energy source for houses, we will now expand and use tidal power as an energy source.
School: Coláiste Naomh Eoin
County: Galway
Teacher: Mairead Ní Fhatharta
Student(s): Grace Ní Ifeanáin, Ella Louise Costello

2522

Title: Glow or go: assessing sunscreen efficiency in different foundations?
Overview: This project is about as the UV rays increase we want to find what foundation will protect our skin the best.
School: Kinsale Community School
County: Cork
Teacher: Diane O' Shea
Student(s): Megan O'Sullivan, Ali Kingston, Mia Rust

2523

Title: Quantitative Analysis of Radon in Donegal
Overview: An analysis of the radon gas readings in the local community along with an awareness campaign of the harmful effects of radon.
School: Loreto Community School
County: Donegal
Teacher: Siobhan Herron
Student(s): Maëve Brady, Clodagh Gibbons

2524

Title: Statistical analysis of a screen free school on students health
Overview: Effect on schools phone ban on students physical/ mental health. We are going to measure the physiological effect on students using pulse rate and blood pressure.
School: Loreto Community School
County: Donegal
Teacher: Siobhan Herron
Student(s): Taha Yousif, Ella Martin, Laoise Lynch

2525

Title: The Impact of School Traffic on Air Pollution
Overview: Comparing the air quality around different schools at different times of the day, to see the effects of vehicle emissions.
School: Clonakilty Community College
County: Cork
Teacher: Patrick O Keeffe
Student(s): Amy O'Gorman, Ines Haida, Aoibhe Knowles

2526

Title: Re-Filament
Overview: Recycling old used PET plastic bottles into filament that can that can be used for the 3D printers in our school.
School: Pobalscoil Inbhear Scéine
County: Kerry
Teacher: Sarah Abbott
Student(s): Cathal McSwiney, Liam O'Sullivan, Dawid Grebowiec

2527

Title: An attempt to create an improved artificial version of the "helicopter seed" produced by the acer pseudoplatanus
Overview: Investigating the aerodynamics of the samaras produced by the acer pseudoplatanus, and propose an improved solution with artificial materials, which would achieve better seed dispersal.
School: St Vincent's Secondary School
County: Louth
Teacher: John White
Student(s): Erin Roe, Erin Finegan, Dearbhla McKenna

2528

Title: Analysis of Electrolytes in Hydration Drinks
Overview: We are going to compare the electrolytes in PRIME compared to other hydration drinks like Lucozade, Gatorade, Dioralyte, Red bull, Pure Orange Juice.

Chemical, physical & mathematical sciences

stripe

School: Loreto Community School
County: Donegal
Teacher: Siobhan Herron
Student(s): Kieran Boyle, Matthew McGettigan, Conor Kelly

2529

Title: Cumhacht na dtonn ar Inis Meáin – Cén tionchar a bhíonn ag crios an bhrutha ar chreimeadh agus ar sil-leagan ar Inis Meáin?
Overview: Éifeacht chrios an bhrutha ar chreimeadh agus sil-leagan ar Inis Meáin a ríomh trí bhreathnú ar hidridinimic chósta, iompar dríodair & dríodareolaíocht. Calculating the surf zone's effect on erosion & deposition on Inis Meáin by looking at- coastal hydrodynamics, sediment transport & sedimentology.
School: Coláiste Naomh Eoin
County: Galway
Teacher: Mairead Ní Fhatharta
Student(s): Chloe Ní Chonghaile, Máirtín Ó Conghaile, Amy Ní Chléirigh

2530

Title: How does the mass of piezoelectric crystals effect the Voltage produced.
Overview: Investigate how changing the mass of quartz crystals affects the voltage produced.
School: St Colman's College
County: Down
Teacher: Pauline Crowl
Student(s): James Hogan, Joseph Linden

2531

Title: What Scientific Variables Impact your success in Baton Twirling?
Overview: We plan to investigate if variables such as friction, speed, gravity, force and coordination impact your success in baton twirling.
School: Borrisokane Community College
County: Tipperary
Teacher: Rachel Ahern
Student(s): Isabel Deere, Mariam Tunde-Muraina, Sekinat Bamgbose

SENIOR GROUP

2600

Title: An investigation into the effect of sound waves from various music genres on exercise performance.
Overview: An investigation into the effects that sound waves from different music genres have on exercise performance on a sample

of people with varying life factors.
School: Mount Anville Secondary School
County: Dublin
Teacher: Niall McGrath
Student(s): Lucy Davy, Jessica Cronin

2601

Title: Solar Imaging for Societal Benefit: Forecasting and Protecting against Solar Storms.
Overview: The aim of this project is to investigate the advance warning signs of solar storms using a hydrogen-alpha telescope to create a solar-weather prediction model
School: Gonzaga College
County: Dublin
Teacher: Daniel Lynch
Student(s): Harry O'Leary, Eoghan Mac Muiris, Alec Hannan

2602

Title: Is Ireland Radioactive?
Overview: Where does radioactive waste go? The sea? The soil? Using a GM counter it is possible to find out where in Ireland is most radioactive!
School: Our Ladys School
County: Dublin
Teacher: Emma Griffin
Student(s): Emma Killian, Heidi Devoy

2603

Title: Phthalates Taking Over Babies
Overview: Investigating the Leakage of Phthalates from Baby Products
School: St Pauls Secondary School
County: Kildare
Teacher: Emily Woods
Student(s): Rhiana Valentina Hrihor, Sarah Foster

2604

Title: To design and develop a filter for household chimneys composed of minerals to reduce carbon dioxide emissions
Overview: To design and create a filter for household chimneys to reduce the levels of carbon dioxide being emitted into the atmosphere using abundant minerals
School: St Aloysius College
County: Cork
Teacher: Isabel Horgan
Student(s): Ellen O'Callaghan, Aobh Mohally

2605

Title: Coastal Crumbling
Overview: The intention of this project is to investigate if coastal homes built with defective blocks

deteriorate faster than inland homes built with defective blocks.
School: Loreto Secondary School
County: Donegal
Teacher: Margaret O Reilly
Student(s): Ciara McDermott, Siobhan O'Brien

2606

Title: Thermodynamics of Crop Photosynthesis
Overview: This project is a thermodynamic analysis of Irish crop photosynthesis. Carnot's theorem will be used to calculate the theoretical photosynthetic efficiency of Irish crops.
School: St Finian's College
County: Westmeath
Teacher: Martina Roache
Student(s): Sean Tully, Noah Clarke

2607

Title: H2GO CARS
Overview: Creating eco-friendly cars powered by hydrogen extracted from water using electrolysis, reducing emissions and promoting a greener future for transportation.
School: Pobalscoil Inbhear Scéine
County: Kerry
Teacher: Sarah Abbott
Student(s): David O'Connor, Jack Atlantic

2608

Title: Unleash your energy
Overview: We wish to discover if artificial energy drinks are more beneficial than natural energy drinks. We will do this through chemical analysis and human tests
School: Pobalscoil Inbhear Scéine
County: Kerry
Teacher: Sarah Abbott
Student(s): Niamh Hurley, Laoise Carey, Connie Guerin

2609

Title: Water pollution needs a solution
Overview: Experimenting the level of water pollution in local rivers and comparing it to urban rivers and its negative effect on aquatic ecosystems.
School: Pobalscoil Inbhear Scéine
County: Kerry
Teacher: Sarah Abbott
Student(s): Cathal Kelleher, Mort O'Shea, Ben O'Callaghan

2610

Title: Proper Copper Business
Overview: What water conditions make copper pipes leave copper traces in our tap water.
School: Coláiste Muire Máthair

County: Galway
Teacher: Sinéad Phillips
Student(s): Hannah Kadajah Bah, Lena Jane Marron, August Polina Boriskina

2611

Title: Investigating methods for reclaiming lithium from used batteries
Overview: This project investigates ways of reclaiming and reusing lithium from used batteries which is particularly important with the advent of electric vehicles
School: St Mary's College
County: Derry-Londonderry
Teacher: Ann Blanking MBE
Student(s): Lexie Melrose, Rebecca Lewis

2612

Title: Radon Revelations
Overview: Our project is an investigation to determine if the radon gas levels in the Irish homes will be increased after retrofitting has been done.
School: Roscommon Community College
County: Roscommon
Teacher: Elizabeth Glancy
Student(s): Cian Escosio, Bailey Kelly

JUNIOR INDIVIDUAL

3100

Title: SolasGlass Teicneolaíocht. Greenlight Technology.
Overview: Córas soilse LED a chruthú a ligeann do reathaithe rás ag luas réamhshocraithe ar rian lúthchleasaíochta.
 Creating a system of LED lights that allows runners to race at a predetermined pace on an athletics track.
School: Coláiste Eoin
County: Dublin
Teacher: Shane Lohan
Student(s): Fionn Crinion

3101

Title: ISL (Irish Sign Language) Translator
Overview: A camera that senses Irish Sign Language and can translate it into American Sign Language.
School: Stratford College
County: Dublin
Teacher: Helen O'Kelly
Student(s): Ciara Daly

3102

Title: A study on the commercialization of small wind turbines for home energy production
Overview: A study on why homes in Ireland are using solar panels instead of wind turbines. And if wind turbines are viable option for energy production.
School: Patrician Secondary School
County: Kildare
Teacher: Colin Doheny
Student(s): Nilan Jagan

3103

Title: Academic Pathways Advisor App (AP2A) for Senior Cycle Students
Overview: I have created an app which assists Senior Cycle students in making informed decisions about their academic pathways, subject choices, university options, and future career.
School: Christ King Girls' Secondary School
County: Cork
Teacher: Vicky Bouché
Student(s): Nina Massalve

3104

Title: MVHR unit in a "cold attic" - how efficient is it really?
Overview: Testing the efficiency of a MVHR unit to see if it's as efficient as the suppliers advertise it to be
School: Presentation College Headford

County: Galway
Teacher: Deirdre Halleran
Student(s): Ryan Mortimer

3105

Title: A system to remotely open cupboard doors for people with disabilities
Overview: This system can be retrofitted to cupboards, allowing users with mobility issues to easily open cupboards
School: Presentation College Headford
County: Galway
Teacher: John Toner
Student(s): Leah Kelleghan

3106

Title: Nutri-Mates
Overview: This application helps you to feed your pets and also yourself. This would help people from vets to people working with malnutrition/other food related illnesses.
School: Colaiste Mhuire
County: Westmeath
Teacher: Eva Acton
Student(s): Darragh Cory Fitness

3107

Title: Can we produce a safer child seat using off the shelf technology?
Overview: We wish to add technology to a child's car seat to make it safer.
School: Coláiste Chiaráin
County: Roscommon
Teacher: Keith Rowe
Student(s): Sean Canny

3108

Title: Removing biases in the world of Artificial Intelligence
Overview: This project aims to investigate and analyze the biases like gender discrimination present in machine learning models and delve into the methods for solving it.
School: Athlone Community College
County: Westmeath
Teacher: Laura Donnellan
Student(s): Srinidhi Karthik

3109

Title: ChatGPT - The curse of, or part of the evolution of learning?
Overview: Can ChatGPT (Generative Pre-trained Transformer), have a transformative effect in the way information is consumed and generated? Will it replace teachers?
School: Desmond College
County: Limerick
Teacher: Donal Enright
Student(s): Darragh O' Mahony

3110

Title: Developing a Generative Adversarial Network to explore Cost of Living hotspots in Ireland.
Overview: Using Generative Adversarial Neural Networks to explore the link between factors influencing the cost of living and the subsequent development of interactive heatmaps.
School: Celbridge Community School
County: Kildare
Teacher: Zita Ann Murphy
Student(s): Addison Carey

3112

Title: Comparison of Time-of-Use of Electrical Consumption on a Financial vs Environmental Cost Basis for a Family Home
Overview: Assess if cost-based electricity usage is aligned with environmental goals.
School: Kinsale Community School
County: Cork
Teacher: Shaun Holly
Student(s): Charlotte Galvin

INTERMEDIATE INDIVIDUAL

3200

Title: Developing Genetic Algorithms and Testing their Viability in place of Traditional Neural Networks
Overview: This is an investigation on the use of Genetic Algorithms for traditional AI tasks such as regression, classification and clustering.
School: Coláiste Phádraig CBS
County: Dublin
Teacher: Kevin Carey
Student(s): Hazem Ahmed

3201

Title: Fiacla: Developing a Diagnostic Tool to Aid Dental Professionals in the Identification of Oral Radiolucencies on Panoramic Dental Radiographs (OPGs)
Overview: I used machine learning technology to identify radiolucencies (dark lesions) on panoramic dental radiographs. I deployed my algorithm into web applications with a simple UI.
School: St Joseph's Secondary School
County: Dublin
Teacher: Daniel Murray
Student(s): Kamaya Gogna

3202

Title: Using machine learning (ML) and classification algorithms to detect brain tumours in MRI
Overview: I used machine learning

to create an algorithm that can detect brain tumours in MRI
School: St Joseph's Secondary School
County: Dublin
Teacher: Daniel Murray
Student(s): Éabha McBride

3203

Title: Measurement of the arch of the foot when running
Overview: The basis of my project is the analysis of the arch of the foot during the kinetic movement of running, to improve athletic performance.
School: Sutton Park School
County: Dublin
Teacher: Joanne Hanratty
Student(s): Niall Kearney

3204

Title: Correcting School Exams With AI
Overview: For my project, I will be programming software that uses AI to correct school exams.
School: Gonzaga College
County: Dublin
Teacher: Diego Alexandre Cavallaro
Student(s): Joe Molloy

3205

Title: Nathan 14 - An innovative smart device for the visually impaired
Overview: This project is an innovative device which utilizes cutting edge technology to assist people with visual impairments in the classroom.
School: Salesian College
County: Kildare
Teacher: Martin Kerins
Student(s): Nathan Proudfoot

3206

Title: Stopping the spread of suicide amongst teens due to social media
Overview: I aim to create an application which will prevent Tiktok's algorithm from showing you 'harmful' content that you have recently interacted with on the app.
School: St. Gerard's School
County: Wicklow
Teacher: Niamh Aylmer
Student(s): Charlie Geelon

3207

Title: No more nasty surprises; period!
Overview: I am looking to see if basal body temperature change can accurately predict periods and to develop an app to help make this easier.

School: Mary Immaculate Secondary School
County: Clare
Teacher: John Sims
Student(s): Niamh Linnane

3208

Title: A Machine Learning Approach To Organ Donor Designation
Overview: A model to aid organ designation to a recipient given a dataset of potential donors, which allocates based on predicted compatibility.
School: Mary Immaculate Secondary School
County: Clare
Teacher: Molly Crilly
Student(s): Fionn Rush

3209

Title: How Noiseless Are Noiseless Pickups
Overview: For my Young Scientist project I aim to remove "60 cycle hum" from electric guitars with single coil pickups.
School: Bandon Grammar School
County: Cork
Teacher: Maire Flynn
Student(s): Elliott Cave

3210

Title: Quantum Computing in the Renewable Energy Industry
Overview: This project is an investigation into the power of quantum computers and how they can change renewable energy sources, making them more efficient.
School: Loreto Secondary School
County: Cork
Teacher: Sarah Jane Brady
Student(s): Amy Burton

3211

Title: The ChatGPT Gamble: Can AI Forecast Sporting Event Winners?
Overview: I will investigate the accuracy of ChatGPT in predicting the outcome of sporting events and later determine whether it was successful in picking a winner.
School: St. Anne's Secondary School
County: Tipperary
Teacher: Isabel Hogan
Student(s): Meabh O'Brien

3212

Title: Defibrillator Dispatch Droid: The Future of Cardiac First Response
Overview: This project will create a robot that could quickly deliver a defibrillator to a classroom when it is needed.

School: Mercy Secondary School Mounthawk
County: Kerry
Teacher: Eimear Nolan
Student(s): Kai Seino

3213

Title: IoT Defender - A device to prevent botnet DDoS attacks using IoT devices
Overview: Creation of a device to detect and stop DDoS attacks using a botnet of IoT devices.
School: Coláiste Choilm
County: Cork
Teacher: Paudie Scanlon
Student(s): Cillian O'Toole

3214

Title: A File Manager Application for Tag-Based Searching of Media Files
Overview: A file manager for bulk storage of media files. Supports tag-based searching.
School: Portlaoise College
County: Laois
Teacher: Fiona Kelly
Student(s): Tomás Fox

3215

Title: Smart Otoscope
Overview: Smart Otoscope converts virtually any smartphone into an otoscope, allowing ear infections to be diagnosed remotely.
School: Desmond College
County: Limerick
Teacher: Donal Enright
Student(s): Laura Brennan

3216

Title: Teaching AI to recognise bacterial cultures on agar plates.
Overview: This project aims to teach Artificial Intelligence how to identify bacterial cultures on agar plates.
School: Colaiste Chiarain
County: Limerick
Teacher: Edel Farrell
Student(s): Miles Bueno

3217

Title: Aero Dog
Overview: Reduce sheep loss for Irish farmers using cost-effective drone-based track
School: Greystones Community College
County: Wicklow
Teacher: Ciarán Doyle
Student(s): Smaran Pandey

3218

Title: EnergySaver: A Machine Learning Model that monitors and detects anomalies in homeowners' energy consumption

Overview: My project is a Machine Learning model that monitors energy consumption in households and detects anomalies, helping homeowners to identify and address energy-related issues.
School: Coláiste Phádraig CBS
County: Dublin
Teacher: Kevin Carey
Student(s): Joel Emmanuel

SENIOR INDIVIDUAL

3300

Title: Artificial Multimodal Intelligence for Alzheimer's Disease Diagnosis and Aetiology Analysis
Overview: Applying contrastive multimodal learning (2D-MRI, 3D-PET, biomarkers, medical history, cognitive tests) and novel tabular attention algorithms for Alzheimer's disease diagnosis and aetiology analysis
School: St Andrews College
County: Dublin
Teacher: Emily Casey
Student(s): Weichen Huang

3301

Title: Where AI meets Brute Force
Overview: Pitch AI against a brute force opponent in a game of N-dimensional tic-tac-toe and find the optimal balance in calculation efficiency, minimizing environmental cost.
School: St Joseph's College
County: Galway
Teacher: Neil Spellacy
Student(s): Andrew Finnerty

3302

Title: An Investigation into Cyclist Safety in Ireland and Development of an Innovative Technological Solution to Improve the Rate of Cyclist Injuries and Fatalities: Safe Cycle
Overview: An investigation/analysis of the safety of cyclists in Ireland and further development of an innovative technological solution to reduce cycling injuries/fatalities
School: Colaiste Mhuire
County: Westmeath
Teacher: Eva Acton
Student(s): Killian McGrath

3303

Title: DermAI: Novel Approach to the Mitigation of Algorithmic Bias within CNN Based Skin Lesion Classification
Overview: My project addresses racial biases within data in relation to the use of AI for skin lesion classification.
School: Dundalk Grammar School

County: Louth
Teacher: Shane Lynch
Student(s): Solomon Doyle

3304

Title: Revolutionizing human flight: The Pursuit of Human Wings with reengineered ornithopter
Overview: I'm investigating human flight with my reengineered ornithopter, beginning with a mini prototype then advancing to a full-scale human-sized version.
School: Mount St Michael
County: Mayo
Teacher: Stephanie Hogan
Student(s): Cassandra G Blitger

3305

Title: ChatGPT-Powered Child Grooming Detection App for Social Media
Overview: I aim to enhance online safety by integrating ChatGPT into a Django app, to identify and flag grooming risks through AI analysis of online conversations.
School: Coláiste Choilm
County: Cork
Teacher: Karina Lyne
Student(s): Anne O'Donovan

3306

Title: VerifyMe: A new approach to authorship attribution in the post-ChatGPT era
Overview: Pivoting the focus from rapidly evolving AI to individual humans. Developing a system grounded in stylometry adept at distinguishing authors and detecting AI "style" mimicry.
School: Colaiste Chiarain
County: Limerick
Teacher: Edel Farrell
Student(s): Seán O'Sullivan

3307

Title: Development of a Portable Projectile Calculator for Educational Purposes
Overview: I have designed, developed and programmed a portable convenient projectile calculator for the convenience of students learning applied maths in secondary and third level education.
School: St Ciaran's Community School
County: Meath
Teacher: Ciarán Dunne
Student(s): Niall O'Reilly

3308

Title: A Radiology Tool Harnessing Neural Networks for Early Diagnosis from CT scans and MRIs
Overview: A neural network tool that can use MRI and CT

imagery from around the body to diagnose diseases. This includes Neurological, cardio-thoracic, and abdominal imagery.

School: Kinsale Community School
County: Cork
Teacher: Shaun Holly
Student(s): Ronan Hawkins

3309

Title: SkySci: AI-Powered Environmental Monitoring and Photography Drone
Overview: I want to develop an AI-Powered Environmental Monitoring and Photography Drone equipped with sensors and powered by the Astro Pi for data processing & analysis.

School: Kinsale Community School
County: Cork
Teacher: Shaun Holly
Student(s): Ian Cullinane

JUNIOR GROUP

3400

Title: Green Hydrogen Production
Overview: Green Hydrogen Production and Use
School: St Ciaran's College
County: Tyrone
Teacher: Pauline Murphy
Student(s): Caitlin O'Hanlon, Eimear Boyle

3401

Title: Smart Sustainable Irrigation System
Overview: A smart and sustainable irrigation system that uses an analogue moisture sensor to detect if plants need watered and harvests precipitation as it's water source.
School: St Ciaran's College
County: Tyrone
Teacher: Lauren Teague
Student(s): James McGinley, James Hurson, Fionn McCaughey

3402

Title: ConnectedRoads: Bridging the Vehicle Communication Gap
Overview: Creating a custom circuit board to communicate non-autonomous vehicle location to the cloud where it can be shared with autonomous vehicles to lower collision risk
School: Scoil Mhuire gan Smal
County: Cork
Teacher: Edel Healy
Student(s): Zach O'Leary, Conor Walsh, Malachy Burns

3403

Title: MARCUSBot - Mechanical Axial Rotator Cleaning Up Seashores
Overview: We are building and

testing a beach cleaning machine that helps to separate plastics from sand and seaweed on Irish beaches
School: Pobalscoil na Tríonóide
County: Cork
Teacher: Barbara Kirwan
Student(s): Katie King, Keelin Kelly, Hannah Leahy

3404

Title: The Development of Wearable Anti-Drowning Technology with Automated Flotation System and Data Collection Technology.
Overview: We have developed an Arduino-based anti-drowning technology with an automated flotation system to improve water safety for swimmers.
School: St Mary's Secondary School Mallow
County: Cork
Teacher: Rory Coote
Student(s): Delilah Smigiel Afriqie, Doireann Dempsey, Layla O'Connor

3405

Title: Mould Control Trigger
Overview: Mould is a "Silent Killer". It produces toxic substances causing significant health problems. How can we trigger when mould becomes a problem in our homes
School: Our Lady's Bower
County: Westmeath
Teacher: Karina Jones
Student(s): Annamarie Mullan, Bláthín Moran, Aideen Derwin

3406

Title: Wake me wheel
Overview: A device attached to your steering wheel that will wake you up if you fall asleep by playing a sound or alarm and a vibration.
School: Colaiste Mhuire
County: Westmeath
Teacher: Eva Acton
Student(s): Cillian Newcombe, Jack Britton Keena

3407

Title: Dual purpose glasses
Overview: The glasses we hope to create change lenses with a button or a lever. They go from normal lenses to sunglasses seamlessly.
School: Davis College
County: Cork
Teacher: Aisling Guiney
Student(s): Kevin Chen, Mehdi Mezzi

3408

Title: Wound Protection Cage
Overview: To create a protection cage that helps heal and protect wounds on different parts of the body.

School: Kinsale Community School
County: Cork
Teacher: Catherine Coughlan
Student(s): Etaoin Healy Bastow, Eva Grace

3409

Title: EweAlert: A Warning Device to Notify Sheep Farmers of Dog Attacks
Overview: This project aims to develop a warning device to quickly alert farmers when their flocks are in distress due to dog attacks.
School: Moate Community School
County: Westmeath
Teacher: Irene O'Sullivan
Student(s): Domhnall Molloy, Terry Heffernan, Kerry Sun

3410

Title: Automatic Data Collection (ADC) Trough
Overview: An automatic covered feeding trough for farmyard animals, that prevent food wastage and monitor animal weight gains.
School: St Ciaran's College
County: Tyrone
Teacher: Barry McManus
Student(s): Matthew McVeigh, Joseph Clarke, Killian McNelis

3412

Title: Communicating Plants for Smart Water Conservation
Overview: Plants will communicate their needs by means of sensors that are attached to the plant. Smart electronic system respond to these needs
School: Colaiste An Phiarsaigh
County: Cork
Teacher: Trish Leader
Student(s): Sarah Ní Murchú, Siobhan Ní Mhurchu

INTERMEDIATE GROUP

3500

Title: Using generative adversarial networks to predict post rehabilitation effects on stroke victims
Overview: Using generative adversarial networks to generate predictive MRI scans for stroke victims in an attempt to expedite the rehabilitation process
School: The Institute of Education
County: Dublin
Teacher: Catriona Hendry
Student(s): Shaanak Mohapatra, Nihal Reddy Mala

3501

Title: Safeswim (water quality app)
Overview: We wish to develop an app to help swimmers assess water quality in bodies of water.

School: St Mary's Secondary School Glasnevin
County: Dublin
Teacher: Eilish Coleman
Student(s): Alysah Cabrera, Harini Stalin, Cassie Alkonga

3502

Title: Sienna: Your Dynamic AI Voice Companion – Redefining Personal Assistance
Overview: Our project combines advanced voice recognition, natural language understanding models and web automation frameworks to create a capable and versatile AI voice assistant.
School: Stratford College
County: Dublin
Teacher: Helen O'Kelly
Student(s): Liam Fuller, Joseph Mudrak

3503

Title: Designing and creating an AI platform which can aid in differentiating learning in mixed ability classrooms in a constructive learning setting
Overview: Designing and developing an AI platform for the educational sector utilizing Open AI's industry standard machine learning technology to explore AI's potential in the classroom.
School: CBS The Green
County: Kerry
Teacher: Máire Fitzgerald
Student(s): Ethan Ward, Donncha Enright

3504

Title: Coachwise
Overview: Our project aims to create an app to make stretching and strengthening procedures accessible to coaches to prevent injury.
School: Coláiste Naomh Mhuire
County: Kildare
Teacher: Nadine Hennessy
Student(s): Kate Monahan, Isabella Campion, Kate O'Gara

3506

Title: Design of a fruit bowl including features that reduce decomposition
Overview: In our project we design a fruit bowl that keeps fruit longer
School: Mount St Michael
County: Cork
Teacher: Alan O' Rourke
Student(s): Jerome McCarthy, Ben Sheehy, Ryan Fitzpatrick

3507

Title: Is there a better, more efficient way for individuals in wheelchairs to evacuate high

rise buildings alone in the case of emergencies

Overview: We wish to create a safe way for individuals in wheelchairs users to evacuate a high story building without the input of others

School: Marist College

County: Westmeath

Teacher: Adele Brown

Student(s): Darragh Glynn-Desmond, Feidhlim Byrne, Cian Copelin

3508

Title: Moove Over Biodegradable - Let's Talk Edible

Overview: We are investigating edible alternatives for the non-biodegradable polythene used for making silage on Irish farms. To date, there is no such alternative available.

School: Our Lady's Bower

County: Westmeath

Teacher: Ellen Maguire

Student(s): Michelle Hughes, Muireann Lambe

3509

Title: Cabhrú

Overview: We entered our project into the EU codeweek hackathon in Microsoft in September 2023. We have added on and implemented new ideas also.

School: Colaiste Mhuire

County: Westmeath

Teacher: Eva Acton

Student(s): Kyle Faherty, Jamie Clerkin, Liam Byrne

3510

Title: The applicability of solar distillation in supplying water to third world countries and disaster zones

Overview: We intend to create an affordable solar stills that can be used by people in disaster zones and developing nations to clean water

School: Salesian Secondary College

County: Limerick

Teacher: Lisa Downey

Student(s): Patrick Madigan, Justin Bryce, Ben Curtin

3511

Title: If You Don't Know the Sender It Could Be a Pretender

Overview: It is to outline how the fact it is NOT okay to share explicit photos of yourself or other people under the age of 17.

School: Coláiste Nano Nagle

County: Limerick

Teacher: Samantha Prior

Student(s): Natasha Bowen, Ebrar Bakhiet, Angelika Pauce

3512

Title: Learning while playing- gamification of mathematical concepts

Overview: We are going to develop an app in Python to facilitate the teaching of mathematical concepts through games.

School: St. Joseph's Secondary School, Navan

County: Meath

Teacher: Bronagh Farrell

Student(s): Silvia Ana Simhas, Sophie Connell

3513

Title: Feathered Frequencies

Overview: Our project is concerned with a bird repellent sound system as a means of eliminating bird strikes.

School: Ursuline College

County: Sligo

Teacher: Anthony Carolan

Student(s): Megan Bohan, Riona O'Farrell

3514

Title: A new form of water safety

Overview: We are working to create an inflatable life ring to be worn around the neck in hopes that it will help improve water safety.

School: Cistercian College

County: Tipperary

Teacher: Jennifer Denny

Student(s): Dan O'Brien, Quan Morgan-O'Brien

3515

Title: Artificial Intelligence and Education, how does this have an impact on today's generation?

Overview: Our project investigates the impact artificial intelligence has on today's society. We also researched the use of Chat GPT by students.

School: Presentation Secondary School Thurles

County: Tipperary

Teacher: Charlene O'Brien

Student(s): Ellen Nolan, Cara Delaney, Niamh Foley

3516

Title: AI vs Humans - An investigation into the difference in work produced by AI compared to students.

Overview: Our project is an investigation into whether teachers can actually identify and differentiate between work produced by students compared to work generated by artificial intelligence.

School: St. Anne's Secondary School

County: Tipperary

Teacher: Shane McNamara

Student(s): Muireann Mooney, Ruby Kelly

3517

Title: Fabulous Fodder - The answer is in the ground

Overview: We aim to develop micro bits that can detect soil moisture and pH levels. We hope to improve farming with this project.

School: Coláiste Chiaráin

County: Roscommon

Teacher: Hannah Conroy

Student(s): Ella Nally, Aoife Shanahan, Sarah Fogarty

3518

Title: Running out of power:

An analysis of battery efficiency
Overview: We wanted to find the most efficient battery brand in terms of safety, cost and length of use.

School: Coláiste Muire Máthair

County: Galway

Teacher: Anthony Carey

Student(s): Julia Matysik, Phebean Ogundare

3520

Title: Design and Development of an Improved Kayak Paddle

Overview: Design and construction of a carbon fibre paddle attachment that improves paddler power and performance.

School: Clonakilty Community College

County: Cork

Teacher: Patrick O Keeffe

Student(s): Fergus Murphy, Mathew Power

3521

Title: How Artificial Intelligence can help with food sustainability

Overview: On average 29% of food is wasted in Irish domestic households. Can AI be used to lower this percentage?

School: Coláiste Choilm

County: Cork

Teacher: Maurice Shanley

Student(s): Andrea Landers, Ava O'Driscoll

3522

Title: Parenting with Arthritis; Designing a baby carrier for child carers suffering with Arthritis

Overview: Our project aims to manufacture a baby carrier to help those with Arthritis care for children and look at the struggles of those with Arthritis.

School: Coláiste Choilm

County: Cork

Teacher: Karina Lyne

Student(s): Heather Butler, Isabelle Walsh

3523

Title: Lámh AI Translator

Overview: Using PyTorch to recognise Lámh sign language from a live visual feed and translate the signs into a written form.

School: Coláiste Choilm

County: Cork

Teacher: Paudie Scanlon

Student(s): Tori Burns, Amy Slattery

3524

Title: Are cow collars worth the hype?

Overview: The aim of our project is to see if cow collars benefit dairy farmers by reducing hard labor and improving cows health and well being.

School: Ballymahon Vocational School

County: Longford

Teacher: Fiona Rooney

Student(s): Keira Hopkins, Grace Cassells, Lara Flood

3525

Title: Solar Safe

Overview: A Wrist mounted device that detects heat related health issues.

School: Glanmire Community College

County: Cork

Teacher: Dan O'Sullivan

Student(s): Kyle Scott, Rory Mullan, Kieran Quirke

3526

Title: The effect mobile devices has on young people.

Overview: Our project aims to show how mobile devices have a negative effect on young people. We want to inform people to bring about a change.

School: Coláiste Ída agus Iosaef

County: Limerick

Teacher: Elaine Stryker

Student(s): Emma Scanlon, Anastasia Ahern, Shauna Riordan

3527

Title: Sweet Energy: A New Superfood Energy Pouch with health boosting attributes

Overview: A new more sustainable way to consume honey for everyday use while enhancing its overall health benefits (a proposal of a natural energy pouch)

School: St Columba's Comprehensive School

County: Donegal

Teacher: Ruth Pierce McPolin

Student(s): Ethan Dewhirst, Tia Duddy

3528

Title: Every Breath You Take

Overview: Development of a disruptive aquatic craft capable of preventing slurry crust growth, thereby minimising toxic gas build-up

School: Ursuline College

County: Sligo

Teacher: Anthony Carolan

Student(s): Emily O'Toole, Caragh Harte

3529

Title: EcoEd Games

Overview: We are going to develop an app with games intended to help people learn about climate change and how to live more sustainably

School: St.Brendan's Community School

County: Offaly

Teacher: Kelly Anne Milne

Student(s): Darragh Hoyne, Lochlainn Daly, Aaron Murray

3530

Title: Colour detector

Overview: This allows you to choose a piece of clothing then pick a colour that it is similar to, it will then bring up matching colours.

School: Coláiste Choilm

County: Dublin

Teacher: Eoin Gaffney

Student(s): Brian McGlade, Michael McGovern, Oisín Parks

3531

Title: Smart embedded clothing for the Visually Impaired

Overview: Our goal is to create a jacket that will help people with blindness, to navigate their environment.

School: Davis College

County: Cork

Teacher: Frank Murphy

Student(s): Alisha Akinola, Mariia Sukhoverkha, Rebecca McCarthy

3532

Title: Triple S (Slurry Safety System)

Overview: To develop a farm safety device to prevent accidents from slurry agitation.

School: Scoil Mhuire

County: Roscommon

Teacher: Modwena Geoghegan

Student(s): Joshua Kenny, Stephen Tighe, Michael Lavin

3533

Title: A Mobility/Care Assister.

Overview: An award-winning voice controlled robot designed for elderly care or an individual with a mobility issue.

School: CBS The Green

County: Kerry

Teacher: Máire Fitzgerald

Student(s): Jaidon Ward Barrett, Tomasz Bober, Rian Curtin

3534

Title: Stay alive, Phone aside: The No- Phone Zone Project

Overview: To prevent people from using phones while driving to make roads safer

School: Scoil Pól

County: Limerick

Teacher: Aisling O'Connor

Student(s): Fia Leddin, Ciara O'Doherty, Laura Ryan

3535

Title: Cé mhéad leictreachas is féidir le roth uisce simplí a ghiniúint, agus an bhfuil sé go leor chun roinnt soilse a chumhacht? How much electricity can a simple waterwheel generate, and is it enough to power some lights?

Overview: Ba mhaith linn fheiceáil an féidir linn go leor leictreachas a fáil chun bolgán a lasadh ag úsáid roth uisce agus báisteach. We would like to see can we generate enough electricity to light a lightbulb using a waterwheel and rainfall.

School: Pobalscoil Ghaoth Dobhair

County: Donegal

Teacher: Susan Ní Loinsigh

Student(s): Áine Ní Fhearraigh, Kerry Magner, Muireann Haicéid

3536

Title: What physical changes will occur in humans due to technology

Overview: Our project will investigate the physical changes in humans such as posture changes and finger changes due to technology

School: Scoil Mhuire gan Smal

County: Cork

Teacher: Colm Kiely

Student(s): Ryan Lin, Isabel Byrd

3537

Title: WAVE VIEW: A novel approach to the improvement of quality of life for the visually impaired.

Overview: WAVE VIEW is a project created to improve the quality of life of people with a visual impairment using the echolocation method.

School: Comeragh College

County: Tipperary

Teacher: Fergal Barry

Student(s): Gerard Hernando Giron, Cesar de las Cuevas Dominguez

3538

Title: The study of human migration and the experiences of immigrants in new societies.

Overview: Our project involves the study behind migration, the adaptation and integration of immigrants into new cultures, challenges and opportunities faced by immigrants, and their experiences.

School: Coláiste Nano Nagle

County: Limerick

Teacher: Samantha Prior

Student(s): Sara dos Santos Lemos, Danijela Muzdeka

SENIOR GROUP

3600

Title: To Investigate Noise Pollution and Cheaper Ways to Integrate Sound Proofing Methods into already Existing Buildings

Overview: Investigating methods of reducing noise pollution in a sustainable, cost-effective manner in a real-life situation; a dog shelter.

School: Colaiste Rís

County: Louth

Teacher: Kaya Kalyoncuoglu

Student(s): Fionnuala Johnston, Luke Matthews, Ryan McLoughlin Smith

3601

Title: To Belittle is to Be Little

Overview: An investigation into how we can prevent cyberbullying at its source.

School: Coláiste Nano Nagle

County: Limerick

Teacher: Samantha Prior

Student(s): Minahil Mir, Tamima Abedin

3602

Title: Anti-Sway Solution "Increasing Farm/Road Safety"

Overview: Uneven distribution of weight is a leading cause of vehicle sway, the risk increased when animals are being transported in the trailer and/or horsebox.

School: Desmond College

County: Limerick

Teacher: Donal Enright

Student(s): Emma Greaney, Madison Brouder

3603

Title: Portanos Portable, Extensible, Modular, Open Source Medical Device

Overview: An affordable 3D-printed ECG machine that delivers reliable cardiac monitoring, increasing healthcare access for

everyone with precision, cost-effectiveness, and ease of use.

School: Colaiste Chiarain

County: Limerick

Teacher: Edel Farrell

Student(s): Aiden Oscar, Taha Njie

3604

Title: A smart facial recognition system for medical settings

Overview: Using facial recognition software we will provide up to the minute personalized medical information for both patients and doctors

School: Kishoge Community College

County: Dublin

Teacher: Micheal Griffin

Student(s): Armand Meijers, Conor Burns, Karl O' Connor

3605

Title: CPR Pedal Chest Compression Device Mark II

Overview: Improved version of last year's BT CPR Device involving manual peddles, piston rotations/speed which delivers chest compressions to required depth without any power source.

School: Tarbert Comprehensive School

County: Kerry

Teacher: Rachael O Donoghue

Student(s): Jim Culhane, Paula-Eve Culhane

JUNIOR INDIVIDUAL

4100

Title: Assessing the Presence of White-Clawed Crayfish (*Austropotamobius pallipes*) in the Blackwater catchment area of Mallow using Environmental DNA Analysis and the identification of possible Ark Sites.

Overview: This investigation provides insight into the possible use of eDNA for monitoring and conservation of this endangered species by evaluating eDNA samples taken from various

School: St Mary's Secondary School Mallow

County: Cork

Teacher: Rory Coote

Student(s): Juliette Ni Sháilleabháin

4101

Title: The Effect of Household Substances on Yeast

Overview: To test the effectiveness of common substances on a yeast sample to determine which ones help or harm it

School: Christian Brothers College

County: Cork

Teacher: Vicki Hennessy

Student(s): Max Power

4102

Title: The Fight against Blight!

Overview: This project will aim to investigate the effect of various plant extracts in controlling late blight in potato.

School: Christian Brothers College

County: Cork

Teacher: Vicki Hennessy

Student(s): Nikhil Shanmuga Sundaram

4103

Title: Mites Bee Gone! An Investigation of Irish Honey Bees and their natural control mechanisms of the parasitic Varroa mite

Overview: I aim to examine if Irish honeybees, display evidence of heritable traits of hygienic behavior which act as defense mechanisms against the Varroa mite

School: Gort Community School

County: Galway

Teacher: Tim Collins

Student(s): Orlaith Connors

4104

Title: Herbs for Hives - An investigation into locally-sourced herbal treatments to combat Varroa mite infestation on Irish honey bees.

Overview: Investigating natural,

local herbal treatments as an alternative to commercial synthetic pesticides treatments against Varroa mite infestation in Irish honey bee colonies.

School: St. Leo's College

County: Carlow

Teacher: Kelley Comerford

Student(s): Naomi Picovici

INTERMEDIATE INDIVIDUAL

4200

Title: An investigation into the affect of different caffeinated drinks on heart rate and the possible consequences to heart health

Overview: This project consists of seeing how caffeine affects the heart rate.

School: Mount Sackville Secondary School

County: Dublin

Teacher: Megan Byrne

Student(s): Ariadne Herero Rueda

4201

Title: Waging War on the Killer Kiwi: Project triangulatus

Overview: This project focuses on the distribution of, and people's understanding of, the invasive New Zealand Flatworm (*Arthurdendyus triangulatus*), in Rush, north county Dublin.

School: St Joseph's Secondary School

County: Dublin

Teacher: Kevin Delahunty

Student(s): Martha Feely

4202

Title: An investigation to raise the ecological profile of Kenure Woods

Overview: My project involves the use of ecological sampling techniques to study a local natural habitat raising the ecological profile of the area.

School: St Joseph's Secondary School

County: Dublin

Teacher: Helen Teehan

Student(s): James Martin

4203

Title: Exploring the Influence of Food-Based Inhibitors on Sucrase Activity to Enhance Endurance Performance

Overview: The aim of the project is to investigate the impact that substances derived from foods have on sucrase activity to improve athletes' endurance performance.

School: Gonzaga College

County: Dublin

Teacher: Diego Alexandre Cavallaro

Student(s): Kevin Lannon-Walsh

4204

Title: Espresso or Depresso?

Overview: A study to test the affects of caffeine on enzyme reactions

School: Our Lady's Grove Secondary School

County: Dublin

Teacher: Marc Paul Lynn

Student(s): Sinéad Ni Bhaoighill

4205

Title: An investigation in differences in the morphology of *Succisa pratensis* growing in different parts of the Burren

Overview: I am looking at what differences there are in the morphology of *Succisa pratensis* growing in different parts of the Burren

School: Mary Immaculate Secondary School

County: Clare

Teacher: John Sims

Student(s): Grace McNamara

4206

Title: Happy Herds are Healthy Herds

Overview: I aim to look at cows' friendships within dairy herds/ examine the levels of stress caused by changes in the herd which may affect milk yield/disease

School: Coláiste na Toirbhirte

County: Cork

Teacher: Jonathan Deasy

Student(s): Annie Burke

4207

Title: Biodegradation, an environmentally friendly solution to microplastic accumulation, but how do we quantify its efficiency?

Overview: The aim of my project is to determine the effectiveness of plastic degrading microbes by optimising the use of UV spectrometry.

School: Colaiste Muire

County: Cork

Teacher: Matilda Miniussi

Student(s): Ellen O'Donoghue

4208

Title: How does the cell-size of a plant affect its rate of photosynthesis

Overview: Does the cell-size of a plant contribute to it's rate of photosynthesis and which cell-size has the fastest rate of photosynthesis

School: St Aloysius School

County: Cork

Teacher: Katie O'Donovan

Student(s): Ananya Singh

4209

Title: The Effect of Microgravity on Plants

Overview: Grow plants in microgravity and see what effect it has on them

School: St Mary's Diocesan School

County: Louth

Teacher: Sophie Caine

Student(s): Cillian O'Kelly

4210

Title: The Impact of Ice Baths on Sporting Recovery and Game Performance

Overview: To investigate whether ice baths benefit player recovery and player performance in games, specifically in the GAA.

School: St. Joseph's Secondary School, Navan,

County: Meath

Teacher: Bronagh Farrell

Student(s): Libby Clynch

4211

Title: Rewilding Ireland: Understanding The Boundaries To Wolf Reintroduction In Ireland

Overview: This project aims to understand the barriers to wolf reintroduction through a combination of mathematical predator-prey modelling as well as surveying.

School: Ardscoil na Mara

County: Waterford

Teacher: Niamh Shannon

Student(s): Cian Ó Cadhla

4212

Title: Moss is going to the moon and the terrarium

Overview: Which moss is the easiest to take care of and is the most sustainable for an enclosed ecosystem? Which moss could be brought to space?

School: Sandymount Park Educate Together Secondary School

County: Dublin

Teacher: Conor Maxwell

Student(s): Tetiana Melnychuk

4213

Title: An investigation into the effect of toothpaste containing hydrogen peroxide on tooth health.

Overview: I will investigate the effects of toothpastes containing hydrogen peroxide on tooth health through research and experimentation.

School: Maynooth Post Primary School

County: Kildare

Teacher: Tom Dixon

Student(s): Caolainn Hanlon

4214

Title: An Investigation into the Presence of Micro-plastics in Animal Feed

Overview: Testing animal feed and faeces to find out if micro-plastics are present and possibly getting into our food chain

School: Clonakilty Community College

County: Cork

Teacher: Patrick O Keeffe

Student(s): Lily Ó Sullivan

4215

Title: Can rooks predict the weather; an investigation into the behaviour of rooks before weather events

Overview: I will analyse the behaviour of rooks in my local rookery in relation to the weather the next day.

School: Borrisokane Community College

County: Tipperary

Teacher: Rachel Ahern

Student(s): Eve O'Connor

4216

Title: What are you drinking?

Overview: An assessment and comparison of raw water quality in two Rural Water Supplies in County Monaghan.

School: Coláiste Dún an Rí

County: Cavan

Teacher: Lorraine Hickey

Student(s): Ciara McEntee

4217

Title: The Statistical Analysis of the Optimal Thoroughbred percentage in elite event horses.

Overview: I will use statistics to calculate the optimal Thoroughbred percentage in elite event horses this will assist breeders when breeding future generations of event Horses.

School: Boherbue Comprehensive School

County: Cork

Teacher: Orla Dineen

Student(s): Cormac O'Shea

SENIOR INDIVIDUAL

4300

Title: Pulmonary Illness Associated with Vape Extract

Overview: Considering the rise of vaping, the consequences are not yet fully understood. This study will explore the effects of vaping linked to pulmonary injury.

School: South Eastern Regional College - Lisburn

County: Antrim

Teacher: Susan Stokesberry

Student(s): Taneesha McCaughan

4301

Title: Zinc finger CCHC domain-containing protein 4 (ZCCHC4) overexpression and its effect on level of p53 responses in pancreatic cancer

Overview: My project explores how zinc finger CCHC domain-containing protein 4 (ZCCHC4) overexpression affects the level of p53 responses in pancreatic cancer.

School: The Institute of Education

County: Dublin

Teacher: Catriona Hendry

Student(s): Lynetta Wang

4302

Title: Does ambient ship sound impact normal communication and foraging behaviour of the Common Dolphin (Delphinus delphis)?

Overview: Sounds from communicating and foraging common dolphins can be masked by low frequency ambient ship noises. Sound analysis will quantify the issue, seeking a solution.

School: St Joseph's Secondary School

County: Dublin

Teacher: Kevin Delahunty

Student(s): Amy Roche

4303

Title: Metastasis in Silico: Computational Models and Targeted Approaches

Overview: Exploring innovative strategies for cancer metastasis, including arginase based therapy through computational modelling, emphasising interdisciplinary research and precision delivery methods.

School: Sutton Park School

County: Dublin

Teacher: Joanne Hanratty

Student(s): Vedh Kannan

4304

Title: SPF... The higher the number the better?

Overview: Sunscreens effectiveness and if a higher spf really means anything or its just a sham to scam the average joe

School: St Kevins College

County: Dublin

Teacher: Ash Hussain

Student(s): Aaron Tom

4305

Title: Investigating the active components in gooseberry (nelli) extracts that are effective against

anti-biotic resistant bacteria found in skin infections.

Overview: I will test if gooseberry (nelli) extracts are effective against bacterial skin infections and then further investigate the active components within the gooseberry extract.

School: Our Ladys School

County: Dublin

Teacher: Emma Griffin

Student(s): Nikishi Polgolla

4306

Title: Fungal Future: mushrooms and sustainability

Overview: My project aims to investigate how mushrooms can be useful in the future of sustainability through areas of waste, materials, fertilisers and fuel.

School: High Cross College

County: Galway

Teacher: Katie Ward

Student(s): Niamh Harhen

4307

Title: Rooting for Sustainability: An Exploration of More Sustainable Grassland Nutrient Management for a Greener Future

Overview: A comprehensive analysis of anaerobic digestate, a sustainable fertiliser, that can be used in grassland areas compared to popular synthetic fertilisers.

School: Roscommon Community College

County: Roscommon

Teacher: Elizabeth Glancy

Student(s): Sean Allen

4308

Title: "Ah Sure Go On, What Harm Could It Do?" – An Investigation into the Toxic Effects of Vaping

Overview: An investigation into the toxic effects of vaping on human health, based on previous experimentation to prove the toxicity of e-liquids on other organisms.

School: Tullamore College

County: Offaly

Teacher: Elaine Howlin

Student(s): Daniel Scally

4309

Title: Growing the Future: Investigating the growth of mycelium packaging using button mushrooms

Overview: My project aims to produce biocompatible packaging using agricultural waste and locally sourced button mushrooms, Agaricus Bisporus, as an alternative to traditional plastic packaging.

School: Tullamore College

County: Offaly

Teacher: Elaine Howlin

Student(s): Fatima Karimi

4310

Title: Could Natural Antibacterial substances be effective enough to be developed to replace antibiotics?

Overview: This project will analyse the efficacy of several natural antibiotics against a range of common antibiotics.

School: South Eastern Regional College - Bangor Campus

County: Down

Teacher: Karen Orme

Student(s): Erin Cassie Caldwell

4311

Title: Threats to Ireland's upland wildlife and possible solutions.

Overview: I aim to examine threats to Ireland's uplands and adjacent habitats. I will examine the threats, public awareness, and why we should combat these threats.

School: Blackwater Community School

County: Waterford

Teacher: Brigid Barrett

Student(s): Conor O'Brien

JUNIOR GROUP

4400

Title: Which is better for your dog, a toothbrush or a dental stick?

Overview: This experiment will try to find out the best way to clean your dog's teeth. Dogs can suffer from bad breath and dental issues.

School: Mount Anville Secondary School

County: Dublin

Teacher: Niall McGrath

Student(s): Anna o Shea, Fay Kraus

4401

Title: Short term changes in the pH, salinity, temperature and DO of rockpools in Clare and its relationship to the biodiversity in those rockpools

Overview: We are looking at changes occurring in rockpools with regard to pH, salinity, temperature and DO and its relationship to the biodiversity of the rockpools

School: Mary Immaculate Secondary School

County: Clare

Teacher: John Sims

Student(s): Issy Moloney, Katelyn Whelan

4402

Title: An investigation into the covering behaviour of sea urchins



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(*Paracentrotus lividus*)

Overview: We are looking at the covering behaviour of sea urchins (*Paracentrotus lividus*) on two shores as well as under laboratory conditions.

School: Mary Immaculate Secondary School

County: Clare

Teacher: John Sims

Student(s): Nicole Bujnowska, Hannah Vaughan

4403

Title: Does water temperature affect the righting ability of two species of starfish (*Asterias rubens* and *Asterina gibbosa*)?

Overview: We are looking to see if temperature of seawater affects the righting ability of two species of starfish (*Asterias rubens* and *Asterina gibbosa*).

School: Mary Immaculate Secondary School

County: Clare

Teacher: John Sims

Student(s): Eilidh Lawless, Caoimhe Mc Carthy

4404

Title: Is this the end of Ash?

Overview: We are looking at the extent of ash dieback in north Clare and how much it has progressed in the last 5 years

School: Mary Immaculate Secondary School

County: Clare

Teacher: John Sims

Student(s): Emily Costello, Ethan Zhou

4405

Title: Assessing Potential Differences in Lung Capacity and Physical Attributes between students who are on a school GAA team in comparison to those who are not.

Overview: We will see if students selected for our GAA teams have attributes and lung capacity which give them a potential advantage over those who aren't.

School: Árdcoil Uí Urmoltaigh

County: Cork

Teacher: Sarah Fogarty

Student(s): Cathal Murphy, Eoin Wilcox

4406

Title: An Investigation into the Mathematical Relationship Between Plant Biomass and Leaf Surface Area, as well as the Effects of Simulated Insect Herbivory on Plant Biomass

Overview: This study investigates the mathematical relationship

between plant biomass and leaf surface area, as well as the effects of herbivory on plant biomass.

School: St Mary's Secondary School Mallow

County: Cork

Teacher: Rory Coote

Student(s): Anna Duggan, Alvy Fitzgerald, Leah O' Sullivan

4407

Title: Man's best friend to the rescue: Using furry filters to improve Irish water quality

Overview: We aim to investigate whether floating dog hair filters can absorb oil contamination from water as an approach to improve the quality of water environments

School: Dominican College

County: Galway

Teacher: Laura Thornton

Student(s): Hannah Rainey, Nicole Lally

4408

Title: How "green" are the local gaa clubs? Comparing the carbon footprints of our rural GAA clubs.

Overview: We will investigate whether GAA clubs have large carbon footprints and investigate ways to lower these emissions. We will then compare our GAA clubs emissions.

School: Presentation College Headford

County: Galway

Teacher: John Toner

Student(s): Matthew Daly, Rory Maguire

4409

Title: Is there a correlation between the numbers of hours of screen time and fine motor skills

Overview: We will determine if there is a correlation between the number of hours of screentime on differing devices and an individuals level of motor skills

School: St Mary's Diocesan School

County: Louth

Teacher: Sophie Caine

Student(s): Seamus Keenan, Isaac White

4410

Title: Navigating the flood: Assessing the Effects of Water Stress Priming on Plant Stress Tolerance

Overview: To assess how *Arabidopsis thaliana* respond to excessive water stress (flooding) and to determine whether pre-exposure to water stress enhances their stress tolerance.

School: St Bricin's College

County: Cavan

Teacher: Daryl Dunne

Student(s): Ellie May McGovern, Nina Nawrocka

4411

Title: You had me at Aloe! An investigation into the antifungal efficacy of Aloe vera in vitro and its use as a treatment to maintain post harvest table Berry quality

Overview: The project's objective is to investigate the effectiveness of different concentrations of Aloe vera in combating the fungus responsible for berry decay

School: Virginia College

County: Cavan

Teacher: Kelly Ryan

Student(s): Kayla Curran Doughty, Kate O'Sullivan

4412

Title: The changing face of Irish agriculture

Overview: Are Irish farmers willing and capable of bringing new technologies to the family farm? What are the challenges and concerns that they face?

School: Boherbue Comprehensive School

County: Cork

Teacher: Paula Duane

Student(s): Cathal O' Shea, Fionn Murphy

4413

Title: BioGuard: A Sustainable Weedkiller for the Future

Overview: This project aims to develop an effective dual action weed killer from plant waste which can be safely used in Irish gardens.

School: Moate Community School

County: Westmeath

Teacher: Mairead Cusack

Student(s): Leah Winters, Lilly Daly, Millie O'Donovan

4414

Title: Memory Matters:

Investigating the Forgetting Curve
Overview: We shall be investigating the brain, the Ebbinghaus forgetting curve and how it effects students in their daily lives.

School: Pobalscoil Inbhear Scéine

County: Kerry

Teacher: Sarah Abbott

Student(s): Siena Ryan, Una O'Shea, Emma O'Sullivan

4415

Title: Optimising Hydroponics for Use in Developing Countries

Overview: This project aims to develop a closed hydroponic system to improve the yield and nutrient content of crops in developing countries.

School: Moate Community School

County: Westmeath

Teacher: Mairead Cusack

Student(s): Laura Fox, Lucy Keane, Niamh Noone

4416

Title: An examination of sand hopper (*Talitrus saltator*) populations on three shores in north Clare

Overview: We are looking at the population structure of *Talitrus saltator* on a number of shores in N. Clare and calculating total numbers on those shores.

School: Mary Immaculate Secondary School

County: Clare

Teacher: John Sims

Student(s): Lily Richardson, Grace Whelan, Elizabeth McMahon

4417

Title: Staidéar ar éifeacht feirmeoireacha, tithíochta agus tionsclaíochta ar bhithéagsúlacht inbheartabrach abhainn Leannainn. A study of the effect of farming, housing, and industry on the invertebrate biodiversity and water quality of the Leannan river.

Overview: Gaol a tharraingt idir líon agus réimse bhithéagsúlachta na n-inbheirtibh agus caighdeán an uisce ó thaobh leibhéal cothaithe agus pH abhainn An Leannainn. An investigation into the relationship between the number and variety of invertebrates and the quality of the water in terms of nutrient level and pH.

School: Coláiste Ailigh

County: Donegal

Teacher: Shane Ó Breacáin

Student(s): Caolan Mc Taggart, Daithi Mac Diarmada, Matthew Farrell

4418

Title: Enhancing Soil Health and Crop Growth Through Natural Soil Enhancers: A Comparative Study

Overview: We will trial crushed seashells and nettles and local traditional homeopathic solution as a healthier alternative to chemical fertilizers to minimize damage to Soil microorganisms

School: CBS The Green

County: Kerry

Teacher: Eilín Enright

Student(s): Eanna Thibeaud, James Doody, Joseph O' Connor

4419

Title: Is there a link between executive function and ambidexterity

Overview: We are testing to see if there is a link between ambidexterity and executive function
School: Castlecomer Community School
County: Kilkenny
Teacher: Robert Morris
Student(s): Niall Wilson, Aidan Flaherty, Ciaran Mahon

INTERMEDIATE GROUP

4500

Title: There's Trouble in the Water: the effects of organic and synthetic fertilisers on plant growth and eutrophication.

Overview: We will be investigating the effects of organic and synthetic fertilisers on plant growth and eutrophication, given their significant role in the Irish agricultural sector.

School: St Andrews College
County: Dublin

Teacher: Laura Brogan
Student(s): Grace Higgins, Sophie O'Connor

4501

Title: Chillies as Gas, Liquid and Solid- Which state of its matter is the fastest/best at Killing Bacteria?

Overview: Our project aims to find which state of matter (of chillies) - in solid, liquid or gas is fastest/best at killing bacteria.

School: The Teresian School
County: Dublin

Teacher: Rachel Hynes-Roche
Student(s): Selina Wang, Poornima Aruljothi

4502

Title: Investigation into the effect of listening to different music genres on athletic performance.

Overview: Examining whether listening to certain music genres has an effect on athletic performance ability, be it a positive or negative effect.

School: St Kieran's College
County: Kilkenny

Teacher: David Hennessy
Student(s): Luke Lawlor, Larry Phelan, Louis Raggett

4503

Title: Níl Aon Tinteán Mar Do Thinteán Féin? - A comparative study on fuel types and their effects on the environment

Overview: We are investigating which solid fuels burned in fireplaces are worst for the environment.

School: Loreto Secondary School
County: Kilkenny
Teacher: Laura Heffernan

Student(s): Lucy Byrne, Saoirse Boylan, Orlaith Donnelly

4504

Title: Brain Dominance

Overview: Does whether you are left-brained or right-brained affect how you perceive optical illusions?

School: Loreto Secondary School
County: Kilkenny

Teacher: Brendan Williams
Student(s): Juliette Idzikowska, Sandra Lomba Nogueira, Xheneta Aliu

4505

Title: Deodorant 101 - A Solution to Pollution

Overview: For our project, we wish to investigate what effect changing our deodorant could have on the environment and on our overall health

School: St Marys College
County: Wicklow

Teacher: Joanne English
Student(s): Aimee Duggan, Eimear Lawlor

4506

Title: Vit Fit Teens!

Overview: We will investigate if consuming a higher quantity of vitamins through artificial vitamin supplements or eating food rich in vitamins is better for our health.

School: St Marys College
County: Wicklow

Teacher: Joanne English
Student(s): Erin Tobin, Isobel Byrne

4507

Title: Does the geological substrate have an effect on the trophic state of lakes in North Clare?

Overview: We are investigating if the geological bedrock (shale and limestone) of lakes in north Clare affects their trophic state.

School: Mary Immaculate Secondary School
County: Clare

Teacher: John Sims
Student(s): Michaela Kelly, Cáit Ní Chualáin, Riley Keane

4508

Title: Honey Its Fake!

Overview: Our hypothesis is that most of the honey on the market is fake and has been adulterated either directly or indirectly.

School: Sacred Heart Secondary School
County: Cork

Teacher: Gearoid O'Donovan
Student(s): Ella O'Sullivan, Ellen Meade

4509

Title: Bee Informed: A continued investigation into seasonal patterns of Nosema disease in Cork County honeybee colonies.

Overview: Bee Informed: A continued investigation into seasonal patterns of Nosema disease in Cork County honeybee colonies.

School: Colaiste Muire
County: Cork

Teacher: Bridget Lehane
Student(s): Gráinne Hankinson, Isabelle Jeffers, Mckenzie Kelly Noonan

4510

Title: How equine therapy increases the mood of people with disabilities

Overview: Our project aims to show and tell the public how the use of horses helps people with disabilities.

School: St Mary's Secondary School Macroon
County: Cork

Teacher: Shannen Foley
Student(s): Maureen O'Brien, Erin Kelleher, Ella Lucey

4511

Title: Cultivating Single-Celled Nutrient Sources to Sustain Astronauts on Long Duration Space Missions and Engineering and Testing a Tubular Bioreactor System

Overview: The project's goal is to investigate the possibility of using a variety of single-celled proteins (SCP's) as acceptable food sources for long term space missions.

School: St Mary's Secondary School Mallow
County: Cork

Teacher: Rory Coote
Student(s): Amy O'Mahony, Esme Leahy, Berenice Cronin

4512

Title: Honey's medicinal properties and infection fighting abilities

Overview: My neighbour is a beekeeper, which led to my interest. So we applied our knowledge in medicine and came up with 100% Irish honey bandages.

School: Mount St Michael
County: Cork

Teacher: Alison O' Neill
Student(s): Niamh O' Donovan, Emma Crowley, Marysia Tomczak

4513

Title: Is Chlorine harming the lungs of indoor pool Lifeguards? An Investigation into the air quality

of indoor pools and the effects on lifeguards lungs

Overview: We'll investigate indoor pool air quality's effect on lifeguards' lungs, focusing on chlorine exposure. We'll measure chlorine levels, test lung capacities, and survey lifeguards for policy

School: Christian Brothers College
County: Cork

Teacher: Michelle O' Brien
Student(s): Odhran O'Sullivan, Matthew Herbert

4514

Title: Detecting Neutrophils in the Tumour Microenvironment to try to detect Aggressive Breast Cancer and identify Therapeutic Effect

Overview: We will investigate the role of neutrophils and their by-products in predicting breast cancer behaviour. We will train a computer to detect these features.

School: Dominican College
County: Galway

Teacher: Jean Carr
Student(s): Ailish O' Halloran, Lily Hynes, Shaelin Howley

4515

Title: Are multispecies swards the future for sustainable farming?

Overview: We have decided to investigate if multispecies swards will reduce the amount of nitrate based fertilisers used in farming, reducing the carbon footprint of the therefore sustainable

School: Meán Scoil an Chlochair
County: Westmeath

Teacher: William Lynn
Student(s): Marie Claire Maxwell, Amy Seery, Rachel Murphy

4516

Title: Compost Immersion

Overview: In this project, we have used the natural heat in compost to substitute for a gas boiler or immersion to heat water to shower temperature.

School: St Mary's Diocesan School
County: Louth

Teacher: Sophie Caine
Student(s): Matthias Schazmann, Eoin O' Grainne

4517

Title: Do homing pigeons respond to different coloured bird feed

Overview: In this project we will be testing to see if homing pigeons respond differently to different coloured bird seed.

School: St Vincent's Secondary School
County: Louth

Teacher: John White

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Student(s): Sarah McDonnell, Eimear Fennessy, Nicole Keogh

4518

Title: Are coffee grounds a sustainable alternative to traditional fire starters/peat
Overview: We plan to make and test different coffee-based fire starters and compare them to traditional peat-based fire starters.

School: Ardscoil Ris

County: Limerick

Teacher: Diane Condon

Student(s): Josh Hevey, Marcus MacCarthy

4519

Title: The Effects of the Time of Day and Chronotype on Cognitive Performance

Overview: The objective of our project is to investigate and evaluate the effects of the time of day and chronotype on cognitive performance.

School: Laurel Hill Secondary School FCJ

County: Limerick

Teacher: Aisling Crowe

Student(s): Caoimhe Hennessy, Ellie Hackett

4520

Title: 'Balancing' Behaviour

Overview: To investigate the effect of a series of daily balance activities on tantrum/ behavioral outbreaks of 4-5 year-olds in a primary school setting.

School: St. Joseph's Secondary School, Navan,

County: Meath

Teacher: Bronagh Farrell

Student(s): Aoife Brady, Amy McGillick, Beth Brady

4521

Title: An investigation into the medicinal qualities of Myrica gale commonly known as bog myrtle.

Overview: An investigation into the antibacterial properties of essential oils extracted from Irish Bog Myrtle – Myrica gale

School: C.B.S. Roscommon

County: Roscommon

Teacher: Breege Grennan

Student(s): Odin Fallon, Brian Geraghty

4522

Title: Seaweed Spirits

Overview: We wish to investigate how to produce alcohol from seaweed. We will compare different types of seaweed and their efficiency in producing alcohol.

School: Jesus & Mary Secondary School

County: Sligo

Teacher: Helena Ryder

Student(s): Ellie Cowley, Aoibhe Gordon

4523

Title: Does soil type, location and topography impact the quality of malting barley?

Overview: How to maximise the yield and quality of malting barley by investigating the best soil types and location for sowing barley.

School: Cistercian College

County: Tipperary

Teacher: Jennifer Denny

Student(s): Fionn Hogan, Cian Daly, Harry Finlay

4525

Title: The Benefits of Fungi: How to Reduce Cigarette Ends in our country

Overview: This project uses fungi to biodegrade cigarette butts in landfills and streets, reducing environmental pollution and promoting sustainable waste management.

School: Coláiste Choilm

County: Cork

Teacher: Maurice Shanley

Student(s): James Wilmott Lynch, Luke Wildor

4526

Title: An investigation into the effects of peat cutting on the hydrology and the CO₂ sequestration of a blanket bog.

Overview: Using a blanket bog in the mountains of west Kerry to compare how the landscape is effected after peat cutting

School: Coláiste Choilm

County: Cork

Teacher: Karina Lyne

Student(s): Darragh Sheehan, Donncha Noonan

4527

Title: Is the movement competence element of physical literacy related to general happiness?

Overview: Assessing movement competence rates and how they relate to the general happiness of the person.

School: Coláiste Choilm

County: Cork

Teacher: Paudie Scanlon

Student(s): Claire O'Regan, Emily McGrath, Rachel O'Connor

4528

Title: A Comparative Soil Analysis on the Effects and Consequences of the use of Chemical Fertilisers

Overview: Our project is a comparative analysis on the health

and fertility of soil on Derogation farms as well as farms free from chemical fertiliser.

School: Coláiste Choilm

County: Cork

Teacher: Karina Lyne

Student(s): Rose Ni Shuilleabhain, Heather Power

4529

Title: To investigate the difference in effect of laboratory generated chemical vs natural tablets on the removal of cyanobacteria, by constructing an ecosystem.

Overview: We aim to compare the efficacy of chemical and natural items held in tablet form on removing cyanobacteria, without harming wildlife.

School: Athlone Community College

County: Westmeath

Teacher: Emma Buckley

Student(s): Abby O'Callaghan, Ava O' Connor

4530

Title: Ethanol Evolution

Overview: We want to investigate the effectiveness of different substances for the breakdown of alcohol.

School: Tullamore College

County: Offaly

Teacher: Elaine Howlin

Student(s): Tess Flynn, Clodagh Hynes

4531

Title: The Changing Trends of Smoking Associated Litter on the Cork Coast: A Quantitative Analysis

Overview: To quantitatively assess the proportion of pollution attributable to vaping versus "traditional" litter associated with cigarette use along the Cork coastline.

School: Glanmire Community College

County: Cork

Teacher: Dan O'Sullivan

Student(s): Eve Flynn, Lucy Joyce, Sarah Canty

4532

Title: Beet It: Anailís ar éifeachtaí an sú biatais ar bhainistiú siomptóim asma. Beet It: An Analysis of the effects beetroot juice on the management of asthma symptoms.

Overview: Fiosrúchán ar na féidearthachtaí a bhaineann le sú biatais chun cabhrú le hasma. Investigation into the possibilities that beetroot juice has in helping asthma sufferers.

School: Gaelcholdáiste na Mara

County: Wicklow

Teacher: Rebecca Ní Chonchuir

Student(s): Cillian O' Sullivan, Donncha O'Reilly

4533

Title: Less Fertiliser More Growth: A study into the growth rate of naturally grown onions vs. the use of Mycorrhizal and Algal Bio Fertilizers

Overview: Our experiment tests the growth rate Onions grown without fertiliser compared to using Can, Mycorrhizal and Algal Bio Fertilisers.

School: Ballinteer Community School

County: Dublin

Teacher: Conor Mc Grath

Student(s): Sebastian Moreno, Gabriela Kostus, Mia Li

4534

Title: Pit or Bales... Which is more sustainable?

Overview: An investigation into the sustainability of silage preservation methods from an environmental, Social and economic perspective

School: Millstreet Community School

County: Cork

Teacher: Francys Lyons

Student(s): Luke O'Connor, Emma Byrne, Robert O'Sullivan

4535

Title: Just One Leg to Stand On: Do varying weather conditions affect the energy conservation of roosting birds?

Overview: Investigating the effects of weather conditions on roosting birds' ability to conserve energy by standing on one leg, focusing on the waterbirds of Cork Harbour.

School: St Peter's Community School

County: Cork

Teacher: Daniel Hurley

Student(s): Éadaoin Farrell, Ciarán Farrell

4536

Title: How does hydration affect short-term memory?

Overview: We aim to investigate the effect of hydration on short-term memory as this affects school performance.

School: Heywood Community School

County: Laois

Teacher: Orla Mooney

Student(s): Daniel Bergin, Cara Mezzapelle, Rachel Dunne

4537

Title: The Woodwide Web* - Do Plants Talk To Each Other?
Overview: We wish to investigate whether plants talk to each other through the mycelium system and what functions it serves them.
School: St.Brendan's Community School
County: Offaly
Teacher: Kelly Anne Milne
Student(s): Ava O'Toole, Éabha McDowall

4538

Title: Paw preference
Overview: Our project aims to test whether our everyday pets have a distinct paw preference, just like us!
School: St.Brendan's Community School
County: Offaly
Teacher: Aisling Duane
Student(s): Leah Smyth, Lucy Crowley

4539

Title: A Statistical analysis on how biodegradable micro-plastics affect the DNA genetic code and overall structure of plants from making soil infertile
Overview: We want to take an insight into how biodegradable microplastics affect the DNA of a plant cell caused by soil infertility
School: Kinsale Community School
County: Cork
Teacher: Aishling Kelleher
Student(s): Skye Sheedy, Ellie Sheedy

4540

Title: Can fungal mycelium diminish the amount of herbicide in soil
Overview: Can we inoculate contaminated soil with mycelium and see a decrease in pesticides after a certain period of time
School: Kinsale Community School
County: Cork
Teacher: Cliona O'Shaughnessy
Student(s): Sandra Samoilenko, Martin Hickey, Róisín O'Riordan

4541

Title: 5G Radiation: A Help or Hindrance to Biological Processes?
Overview: To examine the risk 5G Mobile Technology poses to flora and fauna and use the results collected to develop a protective shielding for Irish houses.
School: Moate Community School
County: Westmeath
Teacher: Irene O'Sullivan
Student(s): Seàra Henson, Eva Fox

4542

Title: Leadbusters: Harnessing Invertebrates for Water and Soil Cleanup in Developing Countries
Overview: This project aims to produce a biological filtration system using the native isopod (Porcellio scaber) to efficiently remediate water polluted with lead ions.
School: Moate Community School
County: Westmeath
Teacher: Irene O'Sullivan
Student(s): Ciona Lawless, Niamh Heduvan, Lauren Fox

4543

Title: Developing Ash into an Environmentally Friendly Fertiliser
Overview: This project aims to develop a slow-release agricultural fertiliser from household ashes as a cheap and effective alternative to chemical fertilisers.
School: Moate Community School
County: Westmeath
Teacher: Irene O'Sullivan
Student(s): Kate Nally, Darragh Kennedy

4544

Title: An investigation into Microplastics in Fish in Kenmare Bay
Overview: We are investigating the effect of Microplastics on human health and marine life
School: Pobalscoil Inbhear Scéine
County: Kerry
Teacher: Sarah Abbott
Student(s): Rian Alan O Sullivan, Jonah Kirby, Darragh Murphy

4545

Title: This Fungi's Solution to Plastic Pollution!
Overview: Investigation into the potential of Pleurotus ostreatus (oyster mushrooms) for biodegradation and evaluation of how this capability can be harnessed in home environments to promote
School: Pobalscoil Inbhear Scéine
County: Kerry
Teacher: John O'Sullivan
Student(s): Kate McGann, Lúsaí de Faoite, Grace O Sullivan

4546

Title: Just How Filthy is Your Reusable Water Bottle?
Overview: A statistical analysis to compare the bacterial and fungal growth over a period of time in different types of commonly used water bottles.
School: St. Colmcille's Community School

County: Dublin
Teacher: Leila Martin
Student(s): Kate Smith, Martha Barrett, Leyla Randall

4547

Title: Extracting latex from dandelions and using it to make glue to find a sustainable alternative source for latex
Overview: Our project is based on the extraction of latex from dandelions and using it to make a latex-based glue.
School: Mountrath Community School
County: Laois
Teacher: Laura Thompson
Student(s): Miriam Senior, Seana Dunne, David Fitzpatrick

4548

Title: Fiosrú ar an tionchar atá ag diúscairt dramhaíola ar uisce. Investigating the impact of waste disposal on water.
Overview: Teastáil a dhéanamh ar uisce atá lán de drámhaíola i gcomparáid le uisce gan drámhaíola. We are testing how much water has been damaged by waste emptied into the water compared to a clean area of water.
School: Gaelcholáiste Charraig Uí Leighin
County: Cork
Teacher: Rónán Ó Muirí
Student(s): Adam Breathnach, Dara drake, Rian Collins

4549

Title: Do Male and Female Bodies recover at the same pace after physical activities
Overview: Statistical Analysis of the difference in recovery rates between male and females.
School: Coláiste Choilm
County: Cork
Teacher: Paudie Scanlon
Student(s): Clodagh Fitzgerald, Caoimhe Daly, Laura Healy

4550

Title: Incorporation of multi species grass into dairy grazing rotations to increase milk solids production
Overview: We will be looking at how the grass type that the cows eat can affect the production of milk and milk solids.
School: Boyne Community School
County: Meath
Teacher: Danny Mungovan
Student(s): Tara Coffey, Chloe Creagh, Jack Ward

4551

Title: Does our menstrual cycle affect our physiological traits?

Overview: We hope to find out if our cycle affects our physiological traits such as sleep
School: Woodbrook College
County: Wicklow
Teacher: Siobhan Synnott
Student(s): Lily May O'Brien, Viola Formaro, Marcelina Kulanin

4552

Title: Assessment of the Antimicrobial Effects of Bacterial Probiotic strains isolated from Various Natural Origins Against Bacterial Species.
Overview: Assessment of the Antimicrobial Effects of Bacterial Probiotic strains isolated from Various Natural Origins Against Bacterial Species.
School: Coláiste Choilm
County: Cork
Teacher: Karina Lyne
Student(s): Joshua De Búrca, Caragh Lynch

4553

Title: The Truth of Air to Water Heating
Overview: In this project we hope to uncover the real benefits of the new air to water style heating compared to traditional solid fuel.
School: St Kieran's College
County: Kilkenny
Teacher: David Hennessy
Student(s): Cormac Meegan, Michael O'Shea, Ivin Sony

4554

Title: Mapping the microcosm: A parasite atlas of fecal egg counts in Donegal
Overview: We will be carrying out a statistical analysis of fecal samples from sheep across Donegal in order to map liver Fluke and Worm problems
School: Loreto Community School
County: Donegal
Teacher: Roisin Coyle
Student(s): Ben Burrowes, Ciaran Connaghan

4555

Title: Does the run-off from land into the sea affect the amount of Ulva lactuca
Overview: We are looking to see if run-off from the land has an effect on nutrients in the sea and the abundance of Ulva lactuca
School: Mary Immaculate Secondary School
County: Clare
Teacher: Molly Crilly
Student(s): Patrick Byrne O'Connell, Thomas O' Regan

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4556

Title: Radish Radiance

Overview: Our project is an investigation into the differential growth of a radish plant under different coloured lights on a sustainable, vertical hydroponic farming system.

School: Pobalscoil Inbhear Scéine

County: Kerry

Teacher: Sarah Abbott

Student(s): David O'Brien, Oisín Hanley, Jamie Crowley Wharton

4557

Title: Biodiversity effects in a monoculture forest vs a native forest.

Overview: This project is to investigate the environmental effects of a monoculture forest compared to a forest of natural, native biodiversity.

School: Athlone Community College

County: Westmeath

Teacher: Catherine O'Meara

Student(s): Maebh Noone, Naoise Kiveney, Sadhbh Kilcommons

4558

Title: Moss Mat – Eco Carbon Capture Device

Overview: Moss Mat – Eco Carbon Capture Device

School: Desmond College

County: Limerick

Teacher: Donal Enright

Student(s): Caoimhe Greene, Elissa Shields

SENIOR GROUP

4600

Title: Let's Save the Common Ash! A Continued Study.

Overview: An investigation into the positive interplay of Jasmonic and Salicylic acid on H.fraxineus inhibition, whilst maintaining the typical growth of Fraxinus Excelsior.

School: Loreto Secondary School Balbriggan

County: Dublin

Teacher: Daniel Toomey

Student(s): Abigail O'Brien Murray, Erica O'Brien Murray, Olivia O'Shea

4601

Title: Green Filters: Investigating the Water Filtering Capabilities of Plants

Overview: Investigating the natural filtration capabilities of various plants in regards to the purification of water from algae and bacteria filled lakes and rivers

School: Muckross Park College

County: Dublin

Teacher: Lisa Shine

Student(s): Cate Slattery, Amelia O'Doherty

4602

Title: Hen vs Machine

Overview: We will investigate the health of chicks based on their hatching environment. We will examine the difference in growth rate and immunity to avian influenza

School: St. Mary's C.B.S.

County: Laois

Teacher: Emily Barrett

Student(s): Aaron Keane, Rhys Kelly

4603

Title: Upcycling waste streams for agricultural use and protecting water sources

Overview: This projects investigates how Human waste can be used to replace chemical fertiliser on farms which would prevent the waste being dumped into water sources.

School: St. Mel's College

County: Longford

Teacher: Mairead Reynolds

Student(s): Jared Weafer, Gerard Keogh

4604

Title: Which is the most 'essential' essential oil at preventing the growth of fungal mould on citrus fruits

Overview: We will test the antifungal activity of 6 different essential oils; Lemon, lime, orange, grapefruit, clementine and mandarin citrus fruits.

School: Abbey Vocational School

County: Donegal

Teacher: Donna Furey

Student(s): Jane Faulkner, Robyn Given

4605

Title: "HURRY UP AND LEAF" - an investigation of accelerating of decomposition of leaves on a lawn

Overview: We investigated the use of natural materials to accelerate

the decomposition of leaves on a lawn

School: Cashel Community School

County: Tipperary

Teacher: TJ Quinn

Student(s): Maeva Carroll, Lillian Quinn, Tori Kirwan

4606

Title: Schools say NO₂ to Nitrogen Dioxide!

Overview: Identify schools with high levels of NO₂, then use a model to identify the factors responsible for these levels and propose solutions.

School: Lanesboro Community College

County: Longford

Teacher: Michael Lyons

Student(s): Daragh Creedon, Chriswin Regit, Sean O' Halloran

4607

Title: "Sea the Smell is Gone" with Bio-Liser: A Seaweed-Derived Pyrogenic Biochar for Enhanced Soil Stability, Reduced Nutrient Loss, Emission Control and Odor Mitigation.

Overview: Bioliser, a long-lasting pyrogenic carbon-rich solid, enhances soil stability while reducing nutrient loss and runoff. It reduces the need for excessive fertiliser and mitigates odor.

School: St Joseph's Community College

County: Clare

Teacher: Laura Egan

Student(s): Caragh Killeen, Cian McInerney

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JUNIOR INDIVIDUAL

5100

Title: A Short Mindfulness-Based Colouring Intervention to Reduce Test Anxiety in Secondary Students

Overview: This project investigates a short mindfulness-based colouring intervention to reduce pre-exam anxiety in students and compare results with self-reported anxiety scales.

School: Coláiste Naomh Mhuire

County: Kildare

Teacher: Nadine Hennessy

Student(s): Catarina Nepomuceno

5102

Title: Feeling blue

Overview: My project will be on how blue light affects your vision causing a variety of digital eyestrain problems in young people

School: Eureka Secondary School

County: Meath

Teacher: Chloe Sheridan

Student(s): Isabelle Martin

5103

Title: Volatile Organic Compounds and their impact on our everyday lives

Overview: I will measure and monitor VOC levels that we're exposed to using a VOC monitor and linking my findings to health effects and medical research.

School: St Joseph's Secondary School

County: Mayo

Teacher: Niamh Lally

Student(s): Beth Scully

5104

Title: Exploring the relationship between nicotine affected lungs and healthy lungs.

Overview: In our project we are exploring what are the long term side affects of nicotine affected lung's compared to healthy non nicotine effected lungs.

School: Castletroy College

County: Limerick

Teacher: Michal Osiak

Student(s): Jill Griffin

5105

Title: The Effect on Health and Wellbeing of Climate Change, Awareness Amongst People Living in Ireland and their Level of Engagement with Climate Change Action - A Statistical Analysis

Overview: To determine if people are aware that climate change can impact their health and that climate change action can protect health and wellbeing.

School: Kinsale Community School

County: Cork

Teacher: Shaun Holly

Student(s): Emily Bertoletti

5106

Title: Assessment of the impact of a skill specific plyometrics plan on a juvenile GAA team

Overview: My aim is to assess the impact of a plyometrics plan on the athletic development of a juvenile GAA team.

School: Kinsale Community School

County: Cork

Teacher: Shaun Holly

Student(s): Ronan Moloney

INTERMEDIATE INDIVIDUAL

5200

Title: The Invalidation of Emotion Through Toxic Positivity and its Long-term Effect on Mental Health

Overview: An analysis of the effects of toxically positive language on individuals' abilities to express and process difficult emotions and the consequential impact on mental health.

School: St Dominic's High School

County: Antrim

Teacher: Jamie Mulholland

Student(s): Ava McGurk

5203

Title: Global warming sucks

Overview: I intend to research disease and virus bearing mosquitoes in order to find out at what point they could become a problem in our country.

School: Loreto High School

County: Dublin

Teacher: Lisa Ryan

Student(s): Luisa May Luxardi

5204

Title: A statistical analysis of factors that may have caused the onset of Juvenile Idiopathic Arthritis

Overview: A statistical project conducted in the rheumatology clinic in Crumlin Hospital towards patients, investigating the circumstances of their lead up to Juvenile Idiopathic Arthritis diagnosis.

School: Sandford Park School Ltd

County: Dublin

Teacher: Dana Kilroy

Student(s): Emma Chambers

5205

Title: PeacefulPals: Revolutionising Mental Health Wellness through AI-Guided Therapeutic Intervention

Overview: Designing an application powered by AI to improve and complement mental health services

School: St Andrews College

County: Dublin

Teacher: Laura Brogan

Student(s): Max Grogan

5206

Title: Helper 347

Overview: A Robot Carer to help combat the shortage of carers for the elderly population

School: Stratford College

County: Dublin

Teacher: Helen O'Kelly

Student(s): Blaithnaid Corrigan

5207

Title: Does sleep have an affect on the performance of sports athletes?

Overview: In this project, I will compare athletes who have sleep conditions (such as insomnia) to those who maintain a steady sleep pattern every night.

School: St Kieran's College

County: Kilkenny

Teacher: David Hennessy

Student(s): Cormac Dowling

5208

Title: Can Mental Health and Wellbeing Systems be Improved on in Irish Post primary Schools

Overview: I am looking at the current mental health and wellbeing systems in secondary schools and ways to improve them.

School: Mary Immaculate Secondary School

County: Clare

Teacher: Yvonne Nagle

Student(s): Aisling Vaughan

5209

Title: An investigation into the use of external electrical stimulation in the treatment and management of Raynaud's disease with an analysis of the impact of this disease on the diagnosed population.

Overview: This project focuses on the development and trial of a Raynaud's alleviation device with an analysis of this diseases impact on society.

School: Salesian Secondary College

County: Limerick

Teacher: Lisa Downey

Student(s): Sadie Loftus

5210

Title: Investigating the Impact of Traffic-Related Air Pollution on Air Quality Inside Classrooms Next to Busy Roads

Overview: To investigate the impact of traffic-related air pollution on air quality inside classrooms next to busy roads.

School: Loreto Secondary School

County: Meath

Teacher: Lisa Darley

Student(s): Naomi Bakre

5211

Title: Safety in Your Hands: A mobile application integrating location-based equipment discovery and comprehensive first aid education to enhance overall emergency response outcomes.

Overview: "Lifesaver" is a location-based equipment discovery and comprehensive first-aid education within a single mobile application that can significantly reduce the severity of medical emergencies.

School: Mount St Michael

County: Mayo

Teacher: Stephanie Hogan

Student(s): Mary Lilibeth Curry Glynn

5212

Title: Have We Gone WHEY Too Far?

Overview: My project aims to investigate the effect protein powder has on the mental and physical health of adolescents.

School: Mercy Secondary School Mounthawk

County: Kerry

Teacher: Eimear Nolan

Student(s): Máire O'Connor

5213

Title: Placebo Approach To Fibromyalgia

Overview: I will be doing a research on this rare medical condition called Fibromyalgia and I will be investigating Natural ways to help this condition.

School: Coláiste Choilm

County: Cork

Teacher: Maurice Shanley

Student(s): Leigh Moore

5214

Title: Believe it or not: Maths for anxiety reduction

Overview: I will explore the theory of geometrical patterns and examine their potential application in stress reduction for secondary school students.

School: St. Clare's Comprehensive School

County: Leitrim

Teacher: Edel Mc Phelim

Student(s): Annabeth Drohan

5215

Title: Myths and Misconceptions in Sports and G.A.A.

Overview: My project tests several common myths in youth sports and fitness, to see whether they have

Health & wellbeing

any basis in fact.

School: Scoil Phobail Sliabh Luachra

County: Kerry

Teacher: Gary O' Connor

Student(s): Alex Thompson

5216

Title: An Investigation into the attitude of teenage males towards sleep.

Overview: Examining the attitude towards sleep within teenage boys. Investigating the negative physical and mental results of poor sleep quality.

School: Árdcoil Uí Urmoltaigh

County: Cork

Teacher: Sarah Fogarty

Student(s): Jack Hennigan

SENIOR INDIVIDUAL

5300

Title: Addressing Gender Disparities in Cardiovascular Disease Medication Efficacy and Adherence

Overview: Aims to address gender disparities in the effectiveness of pharmaceutical drugs developed for cardiovascular disease and the underlying reasons for women's reluctance to seek treatment

School: Home School

County: Dublin

Teacher: Yvonne Feehan

Student(s): Holly Feehan

5301

Title: Enhancing Inhaler Technique Proficiency and Adherence in Pediatric Asthma Patients through Machine Learning-Based Intervention: A Comprehensive Study of Misuse Patterns and Technological Solutions

Overview: This project investigates pediatric asthma inhaler misuse, utilizes statistical analysis, evaluates particle dispersion and an app that utilizes machine-learning to enhance management and optimize outcomes.

School: Mount St Michael

County: Mayo

Teacher: Stephanie Hogan

Student(s): Aoibheann Mangan

5302

Title: A Statistical Analysis into Students' Attitudes Towards Sex Education in Irish Secondary Schools

Overview: This project aims to investigate the attitudes of Irish secondary school students towards sex education and make suggestions on how RSE can be improved.

School: Rockwell College

County: Tipperary

Teacher: Helen Murray

Student(s): Anastasia Mazur

5303

Title: Giving Girls a Voice: How successful is the HSE at treating girls with endometriosis

Overview: An Investigation into Ireland's ability to educate, identify and treat girls with endometriosis, and how we can further improve through the Women's Health Action Plan

School: Athlone Community College

County: Westmeath

Teacher: Catherine O'Meara

Student(s): Kayleigh McNamara

JUNIOR GROUP

5400

Title: Speed 3 What Make Athletes Preform Best!

Overview: Through our project, we are testing the best type of exercise to improve fitness. We will get two test groups to carry out plyometrics and exercises, test fitness and Our is find which of is beneficial.

School: St Patrick's College

County: Tyrone

Teacher: Cara Mc Ginn

Student(s): Conor Taggart, Thomas Loughran

5401

Title: Does the menstrual cycle affect 13-14 year old girls concentration levels at school

Overview: We aim to investigate if the menstrual cycle has a positive or negative effect on 13-14 year old girls concentration levels at school.

School: Presentation Secondary School Listowel

County: Kerry

Teacher: Jessica Keane

Student(s): Siún O' Brien, Ellen Murphy

5402

Title: Cé Mhead Bactéir Atá Ar Do Scuab Smideadh.

How Much Bacteria Is On Your Makeup Applicators.

Overview: This project aims to find out how much bacteria is on the makeup applicators people use on their skin every day.

School: Colaiste An Phiarasigh

County: Cork

Teacher: Caoimhín Ó Buachalla

Student(s): Muireann Ní Earchaí-Crudge, Georgia Ní eidhin nic lochlainn, Laura Ní Mhuirí

5403

Title: BREATHE: Nurturing Adolescent Mental Wellness - A Tech Solution to Reduce Stress and Anxiety Among Teens

Overview: Our Project Explores Adolescent Mental Health: Assessing Prevalence, Current Approaches, and Introducing 'BREATHE' - Our Innovative App for Stress and Anxiety Management.

School: Mount St Michael

County: Mayo

Teacher: Stephanie Hogan

Student(s): Meta Alisauskaite, Leen Jomaa, Vanesa Liepa-Samoška

5404

Title: An investigation into how the changes in duration of school lunchtime has affects students activity levels between 9 and 4 o'clock

Overview: To determine how the trend of shortening lunchtimes from an hour to approximately 40 minutes has affected students' levels of activity during school hours.

School: St. Mary's Secondary School Newport

County: Tipperary

Teacher: Eileen Hanrick

Student(s): Liam Oakley, Darragh Redfern, Ashton Vuma

5405

Title: The enablers and barriers to breastfeeding mothers return to competitive camogie

Overview: Our project investigates the enablers and barriers to breastfeeding mothers returning to competitive sport.

School: St. Mary's Secondary School Newport

County: Tipperary

Teacher: Eileen Hanrick

Student(s): Molly Browne, Alison Ryan

5406

Title: Mismatched Medics: An analysis of the inadequacy of skin-color-matching plasters in promoting inclusiveness

Overview: This project aims to highlight the lack of availability of different skin tone adhesive bandages.

School: Virginia College

County: Cavan

Teacher: Kelly Ryan

Student(s): Charlie Brady, Leon Conlon, Eve Brennan

5407

Title: Is TikTok the next pandemic?

Overview: We plan to investigate what makes TikTok so addictive,

how the algorithm works, and it's negative effects on adolescents, mental health, wellbeing and academic life.

School: Tyndall College

County: Carlow

Teacher: Lauren Dowling

Student(s): Wren Styne, Zora Stojakovic

5408

Title: Raising Awareness on Blood Disorders & Examining its Prevalence amongst Adolescents

Overview: This project will help to raise awareness about blood disorders, examine its prevalence, and help people to understand its importance.

School: Coláiste Iósaeaf

County: Limerick

Teacher: Rachel Worrell

Student(s): Aimee Phelan, Cian O'Regan, Zeina Mohammed

5409

Title: An chóir cruth bróga reatha a athrú? Should the shape of trainers be changed?

Overview: Beidh iniúchadh déanta ar leibhéil compóid déagóirí ag gluaiseacht i mbrógaí reatha agus gan. Beidh athdhearadh ar cruth bróga reatha déanta ó seo.

An investigation into comfort levels of movement in traditional trainers and without. Redesign of trainers using the results.

School: Coláiste Daibhéid

County: Cork

Teacher: Amy Ní Laoire

Student(s): Dáithí Ó'Riordáin, Antóin Ó Bráin

5410

Title: Fowl Play: Investigating the Effectiveness of Improved Husbandry and Diet at Reducing the Bacterial Contamination of Hen Eggs

Overview: This project aims to increase the safety of eggs on the Irish market through combined improvements in husbandry and diet.

School: Moate Community School

County: Westmeath

Teacher: Irene O'Sullivan

Student(s): Sibeal Egan, Doireann Naughten

5411

Title: To what extent does post-exercise exhaustion impact memory retention?

Overview: Our project is investigating if exhaustion effects your memory

School: Colaiste Chraobh Abhann

County: Wicklow
Teacher: Claire Horgan
Student(s): Kaya Munez, William Makarus, Rhys Thompson

5412

Title: You're Pulling My Muscle!
Overview: Comparing female and male injuries in sport, seeing how it affects young people physically and mentally, and raising awareness about it.
School: St. Brogan's College, Bandon
County: Cork
Teacher: Michael Connern
Student(s): Roisin Harrington, Amy O'Brien

INTERMEDIATE GROUP

5500

Title: What's the score?
Overview: We want to find out does keeping a score in sport affect the well-being of children taking part.
School: St Colman's College
County: Down
Teacher: Pauline Crowl
Student(s): Fionn McCaul, Niall Macauley, Cathal Dorrian

5501

Title: Should we enjoy the joint?
Overview: We will attempt to research if cannabis could be legalized if used in a non addictive manner, for mental or health issues.
School: Rockford Manor Secondary School
County: Dublin
Teacher: Jessica Young
Student(s): Keelin Carroll, Zuwe Ade, Gabby Ildiko Kim Toth

5502

Title: The Effects of IV Vitamin Drips/Shots on Skin and Overall Health
Overview: This project is a qualitative analysis which looks at the effects of IV vitamin drips/ shots on skin condition and overall physical health.
School: Mount Sackville Secondary School
County: Dublin
Teacher: Megan Byrne
Student(s): Aoife Brennan, Molly O'Leary

5503

Title: SkillBuilderz
Overview: We aim to design a website that aids children ages 8-13 years old in learning necessary life skills in a cyber-safe and engaging way
School: Loreto High School
County: Dublin

Teacher: Rachel Hiney
Student(s): Grace Garrigan, Daniela Perju

5504

Title: Levelling the playing field
Overview: researching the barriers children and adolescents with Down syndrome have trying to access exercise. Based on research collected we will give recommendations to overcome these.
School: Loreto High School
County: Dublin
Teacher: Rachel Hiney
Student(s): Aoife Donohue, Amy Cullen

5505

Title: Mellow minutes
Overview: An Investigation into whether certain factors help to calm the mind and improve sleep
School: Santa Sabina Dominican College
County: Dublin
Teacher: Eimear Maloney
Student(s): Isabelle Fagan, Anna O'Higgins

5506

Title: Two Metres- Too Much, Too Little or Irrelevant?
Overview: An investigation into the effect of different grades of masks on the pattern of distribution of exhaled breath using an infrared carbon dioxide detector.
School: Holy Faith Secondary School
County: Dublin
Teacher: Maria O'Sullivan
Student(s): Caoimhe McCaul, Cara Mulligan

5507

Title: Are our athletes prepared for their lives after sport? A systematic investigation into the physiological and mental well-being of top tier athletes at active and retirement levels in sport.
Overview: An investigation into the physiological and states of athletes mental well-being at top tier, club and retirement level.
School: St Mary's Secondary School Glasnevin
County: Dublin
Teacher: Bronwyn Mulvey
Student(s): Sadhbh Barr, Lauren Duggan, Sophie Bradley

5508

Title: Grow Beyond Your Limits
Overview: Our objective is to compare the effectiveness of using growth mindset motivation versus positive and negative motivation in

the classroom.
School: Our Ladys School
County: Dublin
Teacher: Emma Griffin
Student(s): Katelyn O'Connell, Maria Farrell

5509

Title: ACT {Aid, Care, Treat}
 - an immediate, accessible, technological aid to assist in emergencies, supported by a comprehensive repository of medical information.
Overview: ACT is a medical assistance app designed to support emergency healthcare response. It integrates crucial features to provide swift and effective aid during critical situations.
School: Presentation Secondary School Tralee
County: Kerry
Teacher: Helena Madigan
Student(s): Ciara Murphy, Saoirse Murphy

5510

Title: Sugar Reduction
Overview: A website that helps people eat a healthier diet and learn about nutrition based on their location and resources.
School: Coláiste Naomh Mhuire
County: Kildare
Teacher: Nadine Hennessy
Student(s): Ruby Jean Roberts, Keelin Maguire

5511

Title: Anterior Cruciate Ligament Injuries in Sport
Overview: Create an accessible preventative stretching programme application to reduce the gender disparity in the acquisition of anterior cruciate ligament injuries in sport.
School: Coláiste Mhuire
County: Clare
Teacher: Nicola Meere
Student(s): Amy Hennessy, Juliette Purcell

5512

Title: Blue Light Glasses, True or Rubbish
Overview: To investigate whether or not Blue Light glasses work to improve the length and quality of your sleep and why sleep is important for teenagers.
School: Sacred Heart Secondary School
County: Cork
Teacher: Gearoid O'Donovan
Student(s): Aoibhinn O'Flynn, Bonnie Rose Hegarty O'Brien

5513

Title: Cén éifeacht a bhfuil ar aclaíocht ar do cuid codhladh.
 What effect does exercise have on your sleep.
Overview: Táimid ag fháil amach cén éifeacht a bhfuil ag aclaíocht ar do codhladh.
 What effect does exercise have on your sleep.
School: Colaiste An Phiarsaigh
County: Cork
Teacher: Caoimhín Ó Buachalla
Student(s): Ciarán Sneddon, Max O Haoláin, Cillian Ó Dúgáin

5514

Title: An Analysis: The Way In Which Social Media Platforms Interferes With One's Self Image/ Mental Health
Overview: An analysis into the way that people; primarily adolescents, are influenced by social media platforms in both positive and negative aspects.
School: St Mary's Secondary School Macroom
County: Cork
Teacher: Shannen Foley
Student(s): Olivia Moynihan, Emma Coughlan Hart

5515

Title: Investigating what works to support family carers of children with disabilities.
Overview: We are investigating what support is available for guardians of children with disabilities and if guardians have easy access to this support.
School: St Mary's Secondary School Macroom
County: Cork
Teacher: Jennifer Butler
Student(s): Fern Mullane, Saoirse Twomey, Emily Cronin

5516

Title: Coach Me If You Can: A Study Into the Influence of Coaches on Athlete Motivation based on the Self-Determination Model
Overview: We aim to investigate which approaches to coaching have the most positive impact on the motivation, satisfaction, participation and progression of adolescent athletes.
School: Coláiste Iognáid S.J.
County: Galway
Teacher: Eimear Hennelly
Student(s): Mark Egan, Darragh Small, Ted Silke

5517

Title: Are fashion trends impeding

Health & wellbeing

on our health?

Overview: Our project aims to find out whether the recent fashion trend of wearing acrylic nails is affecting both people's grip strength and hand dexterity.

School: Jesus & Mary Secondary School

County: Galway

Teacher: Kenneth Kennedy

Student(s): Síofra Finnerty, Beth Lovern

5518

Title: Home-Economics, Healthy Eating, & Cooking For Yourself

Overview: We will survey students before and after studying home-economics to see if they cook balanced, complex meals more than those who did not study home-economics.

School: Jesus & Mary Secondary School

County: Galway

Teacher: Kenneth Kennedy

Student(s): Eimear McDonagh, Tallula McManus, Dominika Heininger

5519

Title: Vapes deadly effects on the human body

Overview: Our project aims to expose the deadly truth about vapes and some of their effects on humans and the environment.

School: Marist College

County: Westmeath

Teacher: Adele Brown

Student(s): Isaac Jocher, Anthony Quinn

5520

Title: Optimising glucose levels: impact of combining vegetables and protein

Overview: We will be examining if glucose spikes can be prevented by pairing carbs with other food such as vegetables and protein.

School: Scoil Pól

County: Limerick

Teacher: Grace Garvey

Student(s): Padraig O'Dwyer, Tadhg Cronin

5521

Title: Sunscreen - Safe or Sorry?

Overview: We will test certain brands and factors of sunscreen and examine which combinations work best.

School: St. Louis Secondary School

County: Monaghan

Teacher: Niall Mooney

Student(s): Evanne Coyle, Amy Murphy, Aimee Kierans

5522

Title: An investigation into which Probiotic is best for your Gut Health.

Overview: Investigating to see whether Lactobacillus and Bifidobacterium blends or Soil-based blends work better for your gut-health by means of microbial enumeration and the 'milk test'

School: Mercy Secondary School Mounthawk

County: Kerry

Teacher: Eimear Nolan

Student(s): Kalyani Praveen, Vanessa Anthony

5523

Title: Panacea

Overview: Panacea is a device/app to help those who are caring for patients of dementia.

School: Sandymount Park Educate Together Secondary School

County: Dublin

Teacher: Conor Maxwell

Student(s): Aoibhinn Campbell, Zara Ilyas

5524

Title: Sup-Herb Antioxidants!!

Overview: Our aim is to show the health benefits of using herbs as anti-oxidants and free radical eliminators

School: Coláiste Muire Máthair

County: Galway

Teacher: Sinéad Phillips

Student(s): Mya Nyoni, Tiffany Djoukang

5526

Title: Raising Awareness on Over the Counter (OTC) Medicine Misuse: A Comprehensive Educational Approach

Overview: The misuse of over-the-counter(OTC) medications containing addictive substances is a concerning issue in Ireland, highlighted in a recent RTE Prime Time Investigates programme

School: Community College Killorglin

County: Kerry

Teacher: Donal O'Reilly

Student(s): Max Hamilton, Sarah Murphy, Deirdre O'Sullivan

5527

Title: How Covid-19 has affected the developmental stage and mental-health of Secondary School Pupils ages 14-17.

Overview: Discovering what Secondary School Pupils know about mental-health and how covid-19 positively and negatively

affected their mental-health/developmental stages. Also finding ways to improve awareness.

School: Scoil Aireagail

County: Kilkenny

Teacher: Orlaith Dunphy

Student(s): Sophia Colclough, Winnie McDonagh

5528

Title: Piercings the Good, the Bad and the Ugly

Overview: Investigation of factors attributable to the surge in piercings in adolescents with particular focus on awareness levels of associated health risks and potential health benefits

School: Colaiste Treasa

County: Cork

Teacher: Siobhan O'Sullivan

Student(s): Leah Browne, Sarah Kelly, Hannah Collins

5529

Title: The Rise of The Planet of The Vapes

Overview: An analysis of the personal experience of teenagers and vaping utilising both qualitative and quantitative research methods. Is it a gateway to smoking?

School: Maria Immaculata Community College

County: Cork

Teacher: Cliona Ní Dhonnabháin

Student(s): Caoimhin McCarthy, Ciara Galvin

5530

Title: To investigate both macro & micro-stresses imposed by regulatory compliance and its effect on farmers' wellbeing

Overview: Our project is investigating the effect on the wellbeing of farmers due to the overload of rules and regulations set in place by regulatory compliance.

School: Colaiste Treasa

County: Cork

Teacher: Peig O'Connor

Student(s): Colette Hartnett, Aisling O'Connor, Grace Hourigan

5531

Title: A study of the benefits gained by adopting a rescue dog

Overview: We hope to investigate the positive impact rescue dogs have on peoples every day lives.

School: Coláiste Fionnchua

County: Cork

Teacher: Harry Langley

Student(s): Serena Faradella, Aime Dunleavy

5532

Title: Investigating the effects of different breathing techniques on stress levels and mental wellbeing

Overview: To determine how different breathing methods can have an effect on mental health, stress and sleep patterns.

School: Coláiste Choilm

County: Cork

Teacher: Karina Lyne

Student(s): Laoise Ahern, Aoibhe Linehan

5533

Title: Sticks and stones may break my bones, but my mind can also hurt me. The effects of injury on the mental well-being of athletes.

Overview: We will look to explore the effects that injuries can have on athletes' mental wellbeing. We will also develop a mental return to play.

School: Ballybay Community College

County: Monaghan

Teacher: Paul McCabe

Student(s): Chloe Sullivan, Charlotte Smith, Katie Duffy

5534

Title: Study of the impacts vapes have on teenagers

Overview: During this project we plan to research the impact babies have on behaviour and health of teenagers

School: Borrisokane Community College

County: Tipperary

Teacher: Jacqueline Hayes

Student(s): Katie Moloney, Caitlin Murphy, Molly Carroll

5535

Title: Investigating sensory factors to make our school more inclusive

Overview: We hope to investigate factors around our school to see where the most improvements can be made to make people feel more comfortable.

School: Castletroy College

County: Limerick

Teacher: Michal Osiak

Student(s): Orlaith Lynch, Salva Rezaeizadeh

5536

Title: A Statistical Analysis of the Knowledge of Women's Health and the Status of the Women's Healthcare Services in Ireland

Overview: Our project aims to investigate the health issues faced by women and provide knowledge about women's health and women's healthcare services.

School: St John Bosco Community College

County: Clare

Teacher: Margaret Walsh

Student(s): Clodagh O'Connor, Saorla Crowe, Ruby Mooney

5537

Title: How Development Squads Affect the Mental Health of Teenagers.

Overview: To investigate how sports development squads impact teenagers' mental Health We will survey many age groups at underage level in sports and expect varied results.

School: Coláiste Dún an Rí

County: Cavan

Teacher: Lorraine Hickey

Student(s): Aoife Kennedy, Katie Mc Carthy

5539

Title: Calming cushions

Overview: To see if essential oil calming cushions could be an immediate solution to students anxiety

School: Boherbue Comprehensive School

County: Cork

Teacher: Paula Duane

Student(s): Ava Fitzgerald, Michelle Doody

5540

Title: Banana Bandages: A Sustainable Approach to Wound Care

Overview: This project aims to develop biodegradable bandages sustainably from plant waste for use in developing countries.

School: Moate Community School

County: Westmeath

Teacher: Mairead Cusack

Student(s): Rachel Hamm, Ella Ryan

5541

Title: How Does Playing Sport Affect Mental Health?

Overview: We want to know how taking part in sport and physical activities affects students' mental health.

School: John The Baptist Community School

County: Limerick

Teacher: Brid ODwyer

Student(s): Anna Malone, Lisa Kennedy

5542

Title: Head The Ball: An Investigation into heading the ball and its impact on neurological health.

Overview: An Investigation into the effects of heading a football and

its neurological impact in the long and short term.

School: Pobalscoil Inbhear Scéine

County: Kerry

Teacher: Sarah Abbott

Student(s): Diarmuid Healy, Darragh O'Sullivan, Noah Granville

5543

Title: Suncream Science: Unmasking SPF Levels, Investigating Harmful Ingredients, and Crafting Custom Sun Protection

Overview: Our BTYS project involves testing several sunscreen brands and SPF levels under various UV rays, investigating toxic ingredients, while producing our own organic sunscreen.

School: Pobalscoil Inbhear Scéine

County: Kerry

Teacher: Sarah Abbott

Student(s): Kate O'Connor, Sophie Ryan

5544

Title: Haemochromatosis- why does Ireland have the highest rate in the world and what can we do about it?

Overview: Spreading awareness on the affects of haemochromatosis and developing or making a treatment

School: St. Colmcille's Community School

County: Dublin

Teacher: Roisin Weldon

Student(s): Marian Stefu, Ryan Farren

5545

Title: An investigation of the correlation between the price and quality of sanitary towels and the stigma behind the menstrual cycle.

Overview: An investigation of the correlation between the price and quality of sanitary products (pads and tampons) and the stigma behind the menstrual cycle.

School: Loreto College

County: Dublin

Teacher: Laura Tobin

Student(s): Amy Whelan, Amia Zheng, Tara Naughton

5546

Title: How social media affects athletic performance

Overview: we are investigating if and how social media affects how an athlete will perform

School: Meánscoil na mBráithre Criostaí

County: Kilkenny

Teacher: Eanna Collins

Student(s): Finn Butler, Tom Kehoe, Fearghus O'Connor

5547

Title: The Active Affect

Overview: A study on the effect of physical activity on academic achievement and how the effects change based on gender and age.

School: Presentation Secondary School

County: Kilkenny

Teacher: Aoife Kenealy

Student(s): Olivia Dunphy, Orla Walsh, Sophie McMahon

5548

Title: Irish Sea Swimming a way towards a healthier lifestyle?

Overview: Irish sea swimming has gained popularity since covid, across all age-groups. We are curious to find if sea-swimming leads to better physical and mental health.

School: Holy Child Secondary School

County: Dublin

Teacher: Aoife Flanagan

Student(s): Ciara Kennedy, Laura Dolan, Emily Dolan

5549

Title: Digital Detox! Are the health benefits real?

Overview: What are the health benefits to doing a Digital Detox? Should all young people be switching off from digital devices?

School: Clonakilty Community College

County: Cork

Teacher: Patrick O Keeffe

Student(s): Oisín Hassett, Sean Whelton, Emmet Nolan

5550

Title: Investigation Into the Effects Gardening Has On Human Health

Overview: We are investigating if gardening has a positive effect on human health and can it improve mood due to Mycobacterium vaccae in soil.

School: Clonakilty Community College

County: Cork

Teacher: Patrick O Keeffe

Student(s): Bill Bennett, Dylan Harrington, David Harte

5551

Title: Testing which kind of chocolate has the most detrimental effect on your singing voice.

Overview: We will investigate which type of chocolate will have the most detrimental effect on your vocal chords, thus effecting your

vocal range.

School: St Vincent's Secondary School

County: Louth

Teacher: John White

Student(s): Moya O'Neill, Mia Gogarty, Jane McGee

5552

Title: An investigation into the number of Garda Recruits in Loreto Community School, Milford Co Donegal

Overview: In our project we plan to investigate the number of students within our school who are able to pass the Garda fitness test.

School: Loreto Community School

County: Donegal

Teacher: Siobhan Herron

Student(s): Rowan McGroarty, Caolan McFadden

5553

Title: Mind Your Mind - Mental Health: Who, When and Why?

Overview: We are researching what age group is most affected by mental health and what factors are influencing mental health throughout the life cycle.

School: Avondale Community College

County: Wicklow

Teacher: Aileen Wall-Adderley

Student(s): Sarah Downes, Tara Tierney

5554

Title: Electrolyte Efficacy: Is pink Himalayan salt the key to preventing muscle fatigue?

Overview: For this project, we wish to investigate the potential benefits of consuming a pink Himalayan salt solution for preventing exercise induced fatigue.

School: St Joseph's Secondary School

County: Dublin

Teacher: Chloe Ryan

Student(s): Maedbh Butterly, Eve Smullem, Tess Meldon

5555

Title: Homework - Worthwhile or Worthless? An Investigation into the Usefulness of Homework in Second Level Schools.

Overview: Given the current debate around the value of h.work, we will carry out a number of experiments to assess whether or not it is beneficial.

School: F.C.J. Secondary School

County: Wexford

Teacher: Michael Ruane

Student(s): Abbie Gray, Felicia Davis

Health & wellbeing

SENIOR GROUP

5600

Title: B-Well

Overview: Creating a Wellbeing Index for use in Irish Secondary schools

School: Coláiste Phádraig CBS

County: Dublin

Teacher: Jacqueline Farrell

Student(s): Aniruddh Sriram, Abhinav Sriram, Sam Jacob

5601

Title: MONEY! MONEY! MONEY!

Overview: Our project aims to find out if the cost-of-living (COL) in Ireland affects sixth year students in public vs. private schools differently.

School: St Louis High School

County: Dublin

Teacher: Catherine Clayton

Student(s): Chloe Kelly-Flood, Dorka Apor, Kris Joy Bau

5602

Title: The Wrist Assist

Overview: We investigated possible methods of improving mental health among deaf children, through making sport more inclusive.

School: Tullamore College

County: Offaly

Teacher: Noreen Flynn

Student(s): Isobel McAuliffe, Eva Flynn

5603

Title: Éire at dul in aois - am don ghníomhaíocht!

Aging Ireland - Time for action!

Overview: Is muid an tír is mó aosaithe san Éiríope de réir mar a thiteann ráta breithe mar gheall ar neamhthorhualacht. Cad iad na cúiseanna?

School: Coláiste Naomh Eoin

County: Galway

Teacher: Cormac Coyne

Student(s): Abigail Higgins, Mary Zita Boyd, Madison Pikul

5605

Title: A comparative study investigating the differences between the wellbeing of farmers versus non-farmers

Overview: Our project will investigate the differences in the wellbeing of farmers versus non-farmers. Investigate the support and opportunities available for both farmers and non-farmers.

School: Scoil Mhuire

County: Roscommon

Teacher: Modwena Geoghegan

Student(s): Tadhg Carroll, Darragh Hoare

delivering

INNOVATIVE

Sustainable

creative

solutions

to young scientists from its early days



here's to the next 60...

STEM

INSPIRATIONS

FROM THE BT YOUNG SCIENTIST
& TECHNOLOGY EXHIBITION



PODCAST SERIES FROM THE BT YOUNG
SCIENTIST & TECHNOLOGY EXHIBITION

[WWW.BTYOUNGSCIENTIST.COM/
STEM-INSPIRATIONS-PODCASTS](http://WWW.BTYOUNGSCIENTIST.COM/STEM-INSPIRATIONS-PODCASTS)

ON STAGE YOUR BIG BEAUTIFUL BIASED BRAIN - JAMES SOPER

Your brain is the most amazing machine in the universe but it doesn't work the way you think it does.

Mind bending illusions, a beautiful multimedia presentation and lots of audience interaction adds up to a show that will make you a better student, a more confident person and will - quite literally - turn your world upside down.



LIMITLESS WITH MARK THE SCIENCE GUY

**Inspiring. Powerful. Eye-opening.
Feel good.**

Discover a world of limitless possibilities and embark on an exciting scientific expedition with climate scientist and broadcaster, Mark Langtry, aka "The Science Guy", exploring the extremes of our planet.

This high energy, interactive show will kickstart you into action, help you feel powerful about your future and inspire you to make a positive impact on our world!

Instagram: Mark_theScienceGuy

TikTok: Mark the Science Guy

Twitter: @MarkLangtry

Facebook: Mark the Science Guy



3D THEATRE OUR SPACE ADVENTURE: CHALLENGES FOR THE NEXT 60 YEARS

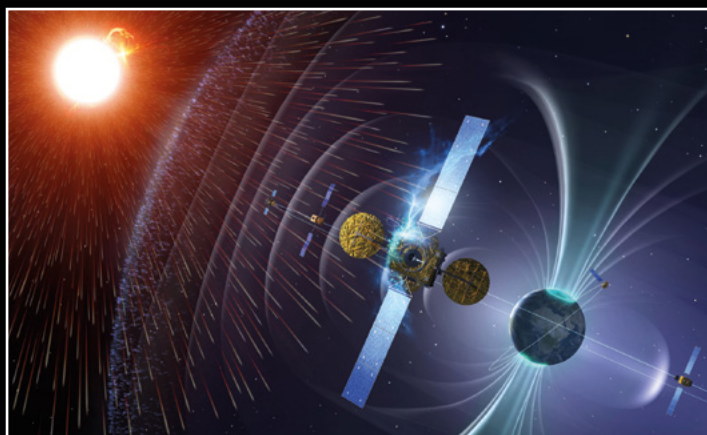


60 YEARS AGO, the space race was on! Valentina Tereshkova had become the first woman in space and our spacecraft had visited the planet Venus and we were on our way to Mars.

The past 60 years has seen unprecedented growth in the space domain. The International Space Station is a human outpost in orbit around the planet, human beings have walked on The Moon and our spacecraft have visited other worlds and left the Solar System on the beginning of their galactic voyage.

The next 60 years will see humans set foot on Mars. Space tourism is a reality. We will be mining asteroids for resources and there will be over 100,000 spacecraft in orbit around our planet, providing communications and navigation services and monitoring our climate from above.

However, there are many challenges to overcome to build and sustain this next stage of human space travel. This 3D presentation will highlight these challenges and how we are preparing to take our next steps into the cosmos.



Courtesy of ESA



ON STAGE JUANITA'S BIG PROBLEM



An interactive one-woman circus show about plastic pollution from Ireland's leading female clown Angelica Santander.

Juanita the cleaner has been collecting her rubbish for one whole year. But what can she do with her mountain of plastic? Where will it end up? What can we do to stop it? Can she throw it away? Where does all that plastic we recycle actually go? She has so many questions – and needs your help to find solutions. Together with her audience, climate-conscious Juanita lifts the lid on our recycling bins and invites you to be part of her quest for a plastic-free world. Clown Juanita tackles plastic pollution in a provocative, entertaining and ridiculous way.

An important, urgent and utterly hilarious show full of hope for our future.

CLYDE ROOM FOYER GLOBAL GAMES (DRUMMING WORKSHOP)

In the Drumming Workshops, students will play the west African djembe drums, a fun and interactive activity with our team from the Irish Aid Centre. Students will also learn about Irish Aid, Ireland's ODA (official development assistance) programme and its work with partners in over 130 countries. Irish Aid was set up by the Irish Government in 1974, and this year will mark its 50th Anniversary.

At the workshops, students will discover how Ireland funds programmes around the world, to help reduce humanitarian need, tackle climate change, work towards achieving gender equality and strengthen governance globally. We will also explore how all of this work contributes towards the Sustainable Development Goals (SDG's).



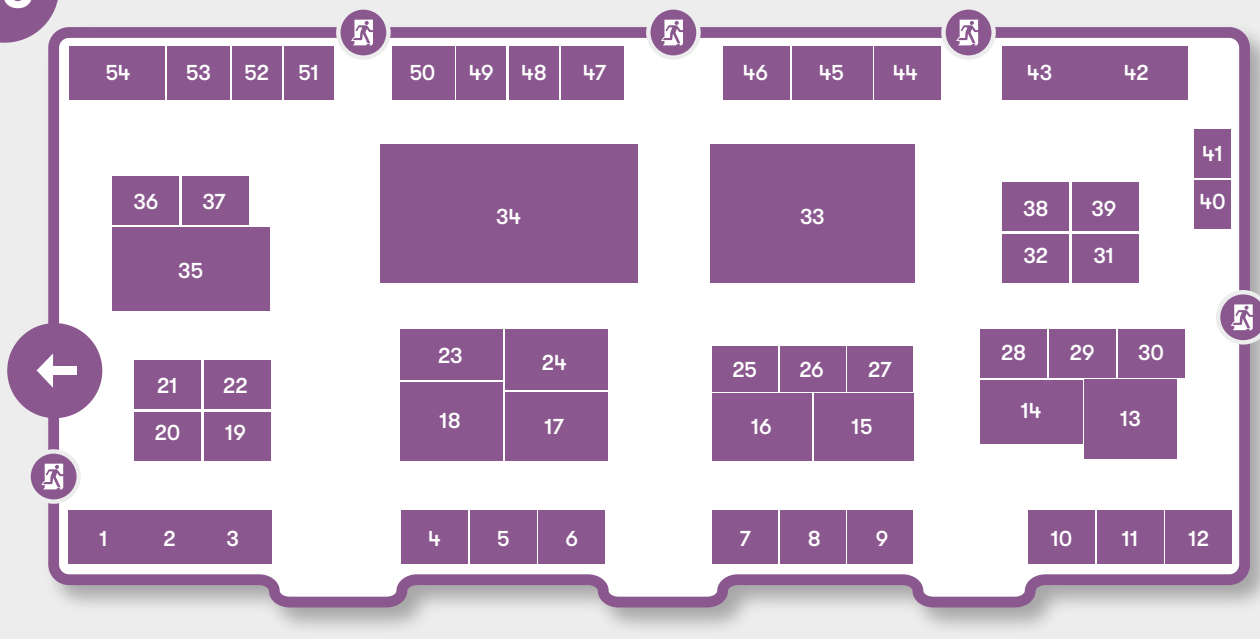
Irish Aid

An Roinn Gnóthaí Eachtracha
Department of Foreign Affairs

50 YEARS

Exhibit halls

10



ABP Food Group

15

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 13,300 people and operates in 51 locations across Europe.

www.abpfoodgroup.com



AMD

10

AMD is the high performance and adaptive computing leader, powering the products and services that help solve the world's most important challenges. Our technologies advance the future of the data center, embedded, gaming, PC markets, and pervasive AI. AMD employees around the world are focused on building leadership high-performance and adaptive computing products that push the boundaries of what is possible. AMD products and technologies serve as the digital building blocks used by billions of people, leading Fortune 500 businesses and cutting-edge scientific research facilities every day to power the services and devices that define modern life.

www.amd.com



Amgen

17

Amgen harnesses the best of biology and technology to make people's lives easier, fuller, and longer. We draw upon our deep knowledge of science to push beyond what's known today. With roots in the biotech revolution, we are one of the world's leading independent biotech companies – fighting the toughest diseases and helping millions of people globally.

www.amgen.com



AHEAD OF WHAT'S POSSIBLE™

Analog Devices

34

Analog Devices, Inc. is a global semiconductor leader that bridges the physical and digital worlds to enable breakthroughs at the Intelligent Edge. ADI combines analog, digital, and software technologies into solutions that help drive advancements in digitized factories, mobility, and digital healthcare; combat climate change; and reliably connect people and the world. With revenue of more than \$12 billion in FY23 and approximately 26,000 people globally working alongside 125,000 global customers, ADI ensures today's innovators stay Ahead of What's Possible. Learn more at analog.com and on LinkedIn and Twitter (X).

www.analog.com/en/landing-pages/001/btyste.html



Atlantic Technological University (ATU)

47

Atlantic Technological University (ATU) is a multi-campus technological university in the west and north-west of Ireland that delivers a rich combination of academic and research excellence, quality of life and opportunity.

ATU's strength lies in our collaborative ethos, realising our shared goals by elevating and championing with a student population of over 23,500 learners, spanning more than 600 academic programmes from pre-degree to doctoral level.

ATU offers an exceptional higher educational experience, building on the foundations of applied learning, focusing on research-informed teaching. We empower learners to realise their full potential. At ATU we have a proud tradition of industry engagement, through collaborative research and providing programmes at undergraduate and postgraduate levels that meet employers' skills requirements. As the leading higher educational institution in the region, we are intrinsically linked to regional employers, building sustainable employment opportunities, and driving growth in the west and north-west. Our students develop as global citizens, recognising and building awareness of the opportunities and roles, we play in developing sustainable global economies. From collaborative international research to overseas study and work placement opportunities, ATU students are part of a global community with a mindset that reaches far beyond our shores.

www.atu.ie

**BT****35**

When people connect, there's no limit to the good they can do.

We're one of the world's leading communications services companies. The solutions we sell are integral to modern life. Our purpose is as simple as it is ambitious: we connect for good. There are no limits to what people can do when they connect. And as technology changes our world, connections are becoming even more important to everyday life.

Today, that's truer than ever. The connections we make are helping solve the world's biggest challenges such as the global pandemic, climate change and cyber security. Through the power of technology, we're supporting customers to live, work and play together better.

www.bt.com

www.btireland.com

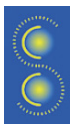
**Central Statistics Office****23**

The Central Statistics Office (CSO) is Ireland's national statistical office and our purpose is to impartially collect, analyse and make available statistics about Ireland's people, society and economy.

Specifically, our mandate under the Statistics Act 1993 is "The collection, compilation, extraction and dissemination for statistical purposes of information relating to economic, social and general activities and conditions in the State".

At national level, CSO official statistics inform decision making across a range of areas including construction, health, welfare, the environment and the economy. At European level they provide an accurate picture of Ireland's economic and social performance and enable comparisons between Ireland and other countries.

www.cso.ie

**CONCOS****28**

Coláistí Gaeilge - Irish Summer Colleges

www.colaistigaeilge.ie

**Conradh na Gaeilge****30**

Conradh na Gaeilge is the democratic forum for the Irish-speaking community. The Conradh has over 200 branches and numerous individual members registered around the world, members that work hard to promote the use of Irish in their own areas. Conradh na Gaeilge's main aim is to promote the use of Irish as the standard language in Ireland and raises awareness about careers with Gaeilge in many sectors in Ireland and abroad.

cnag.ie

**Cook Medical****18**

Since 1963, Cook Medical has worked closely with physicians to develop technologies that eliminate the need for open surgery. Today we invent, manufacture and deliver a unique portfolio of medical devices to the healthcare

systems of the world. Serving patients is a privilege, and we demand the highest standards of quality, ethics and service. We have remained family owned so that we have the freedom to focus on what we care about: patients, our employees and our communities. Find out more at cookmedical.eu, and for the latest news, follow us on Twitter, Facebook and LinkedIn.

www.cookmedical.eu

**Crazam****54**

Crazam is the only study app students will ever need, with over 10,000 H1 written and video solutions and every single past paper, all in one place.

We have spent a number of years building the ultimate study app that aims to take the stress out of preparing for State Exams whilst also harnessing the knowledge of our team of expert State Examiners.

Based on feedback from students, we have designed this app to make your study more efficient. Find past papers by searching keywords, see where the marks were awarded, study our video and written H1 solutions, create custom papers to help you revise and so much more.

Whatever stage of your study you are at, you can do it instantly with the power of Crazam in your pocket.

Get the app. Get the answer.

www.crazam.ie

**Cumann na bhFiann****51**

Is é Cumann na bhFiann an tseirbhís óige Ghaeilge is mó sa tír. Eagraítear Óg-Chlubanna Gaeilge seachtainiúla, chomh maith le himeachtaí réigiúnacha agus náisiúnta trí mheán na Gaeilge. Tugann seo deis do dhaoine óga a gcuid Gaeilge labhartha a úsáid agus a fheabhsú lasmuigh de thimpeallacht na scoile ag leibhéal sóisialta. Is é an toradh ar seo ná go mbíonn cairde nua le Gaeilge sa cheantar agus ar fud na tíre ag na daoine óga.

www.cnb.ie



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

Dept of Agriculture, Food and the Marine**21**

The mission of the Department of Agriculture, Food and the Marine is to serve the government and people of Ireland by leading, developing and regulating the agri-food sector, protecting public health and optimising social, economic and environmental benefits. The work of the Department's Laboratories Service is a key component of the organisation with regard to the provision of scientific advice, ensuring the safety of Irish food and safeguarding public, animal and plant health.

Science plays a vital role in underpinning policy making within DAFM and we are delighted to sponsor an award to encourage and recognise the contribution of young scientists.

www.gov.ie/en/organisation/departments-of-agriculture-food-and-the-marine



An Roinn Oideachais
Department of Education

Dept of Education**16**

Government Department and sponsor of BTYSTE. Exhibition space will demonstrate the work of the Department in education and the innovative programmes in place in schools to support STEM.

www.gov.ie/en/organisation/departments-of-education/



Ollscoil Chathair
Bhaile Átha Cliath
Dublin City University

Dublin City University, Faculty of Science and Health 38

The Faculty of Science and Health is a place to discover, problem solve, experiment and explore. An inclusive environment that serves to innovate and inspire. Our internationally recognised centre of excellence thrives on the enthusiasm and dynamism of its people. With close to 4,350 students and 169 academics across seven schools, there is always room for more. Discover more about our cutting-edge research, explorations in science and health, and thirst for knowledge on our Faculty pages.

www.dcu.ie/science-and-health.



Dublin Zoo 22

Dublin Zoo is a haven of wildlife and a large living classroom for all ages. With over 400 animals and a state-of-the-art Discovery and Learning Centre, Dublin Zoo is an amazing educational experience.

Programmes at Dublin Zoo are designed to support the preschool, primary, post primary and further education curricula, while giving students a greater appreciation of nature and empowering them to protect wildlife.

Meet our Discovery & Learning Team at Stand No. W24 to learn more about our learning programmes, careers in conservation and the chance to enter an exciting competition to win a class trip to Dublin Zoo!

For more information on our education programmes call (01) 474 8932, email education@dublinozoo.ie or visit www.dublinozoo.ie



112 ECAS HALL 2

The Emergency Call Answering Service, answers all emergency calls and text messages made in Ireland and connects the caller to the required emergency service. It is a vital operator service provided to the public on behalf of the state. Authorised Undertakings forward all emergency calls and texts to the Emergency Call Answering Service and these are routed and answered by call handling agents located in one of our centres. The call handling agents onward connect received calls, where appropriate, to the required emergency service.

www.112.ie



Eli Lilly Kinsale Ltd. 25

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.

www.lilly.ie



Engineers Ireland 9

Engineers are people who design, create, explore and innovate, working to solve some of the world's greatest challenges. Engineers Ireland is a community of creative professionals who deliver solutions for society. We are the progressive and trusted voice of the engineering profession here in Ireland and represent 25,000 members from every discipline of engineering. We support our members' career progression at all stages, from students to senior engineers and CEOs. We have an extensive network of dedicated Regional branches, Engineering divisions and Societies both in Ireland and overseas.

Engineers Ireland ensures that the competence and ethical standards of our profession are world class. We set the standards of engineering education here in Ireland and provide continuing professional development.

Engineers Ireland inspires and encourages future generations of engineers from an early age through our exciting STEPS programme which is funded by Science Foundation Ireland, Dept of Education and Skills and industry sponsors Arup, ESB, Intel and TII. In particular we would like to see more young women become engineers.

www.engineersireland.ie



Environmental Protection Agency (EPA) HALL 2

The EPA's purpose is to protect, improve and restore our environment. Our vision is to live sustainably in a healthy environment that is valued and protected by all.

www.epa.ie



European Commission Representation in Ireland 13

Visit the EU stand at the BT Young Scientist & Technology Exhibition!

This year we have teamed up with Junior Einsteins Science Club who will bring you into the science world with exciting hands-on and real science experiments which include non Newtonian fluids and cross linking polymerisation through slime making, exothermic chemical reactions through making elephant toothpaste, flying saucers and a hair raising experience! And that's just for starters!

What do you know about the European Union? Come and chat with the team from the European Parliament and the European Commission who work here in Ireland. Find out what the EU has to offer for students; from DiscoverEU travel passes and Erasmus+ exchanges, to studying and working in another country, as well as activities available on the EU's 'Science is Wonderful' website which you can explore at your leisure. Learn how a Parliament for 445 million people works, who your local MEPs are and all you need to know about the elections of the European Parliament in June 2024.

Free resources about the European Union will be available for all visitors. Information officers will be available to answer any queries you may have about the EU.

ireland.representation.ec.europa.eu/index_en



An Fóram Uisce - the Water Forum

8

The Water Forum (An Fóram Uisce) was established in 2018 to provide a platform for public engagement on all matters relating to water management in Ireland and the implementation of the Water Framework Directive.

It consists of 25 members including representatives from a wide range of organisations and sectors with an interest in water issues that includes the environmental sector, the rural & agricultural sector, the rural water sector, rivers trusts, angling, recreation, business sector, trade unions, the community & voluntary sector, forestry, education, social housing, tourism and customers of Uisce Éireann.

In accordance with the Water Services Act, 2017, the Forum has advisory roles in relation to the Minister for Housing, Local Government and Heritage (DHLGH), Uisce Éireann (UÉ), the Commission for Regulation of Utilities (CRU) and the Water Policy Advisory Committee (WPAC). The Forum is chaired by Dr Matt Crowe. Twitter: @anforamuisce

www.thewaterforum.ie



An Garda Síochána

HALL 2

The Garda Road Safety Unit

The Road Safety Unit's overall aim is the reduction of road deaths and serious injuries and the improvement of road safety generally. The Unit, based in the Garda National Roads Policing Bureau and established in 2001, delivers presentations on Road Safety to a number of groups in the community including:-

• Schools and colleges • Youth Clubs • Local organisations • Industry groups

The Unit's presentation, It won't happen to me, is mainly delivered to Transition Year students but can be adapted to cater for all audiences. It is a standalone road safety presentation covering all the road safety ingredients including speed, alcohol, seatbelts, fatigue, distractions and consequences. It is delivered in a shock/ humorous manner and is designed to change attitudes and behaviour.

The Unit also provides Road safety information in the "Traffic Watch" segment of the Crimecall programme and at major public exhibitions such as The Young Scientist Exhibition, The National Ploughing Championships, The Tullamore Show and a variety of car and motorcycle shows.



Geological Survey Ireland

1, 2, 3

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. We are committed to providing free, open and accurate data and maps on Ireland's subsurface to landowners, the public, industry, and all other stakeholders, within Ireland and internationally. In addition, we act as a project partner in interpreting data and developing models and viewers to allow people to understand underground. We deal with a diverse array of topics including bedrock, groundwater, seabed mapping, natural disasters, and public health risks. Geological Survey Ireland also provides a Duty Geologist service to the public to address geological queries and concerns, please email Duty.Geologist@DECC.gov.ie



Global Action Plan

41

Global Action Plan is an environmental charity focusing on behaviour change. We equip individuals and communities with knowledge and skills to develop solutions to the environmental and climate crises. Global Action Plan delivers programmes for community groups, schools and businesses, in areas ranging from environmental education and climate action, to global citizenship, biodiversity, the Sustainable Development Goals and community transformation.

www.globalactionplan.ie



Henkel Ireland Operations and Research Ltd

4

Henkel employs approximately 860 employees in the UK & Ireland across six sites, which include manufacturing, R&D and office facilities.

With a presence in Dublin since 1966, Henkel Ireland is responsible for the full product innovation and supply pipeline – from concept and technology development, through product development and scaleup to manufacture and distribution of adhesives and sealants globally.

Henkel's brands and technologies are used in many different applications and industries. Henkel is the name behind many well-known brands such as Loctite, Pritt, Sellotape, UniBond, Schwarzkopf, LIVE, got2be, Bloo, Colour Catcher, Dylon Dyes and Jeyes.

www.henkel.co.uk

IOP Institute of Physics

Institute of Physics

11

The Institute of Physics (IOP) is the professional body and learned society for physics in the UK and Ireland, with an active role in promoting co-operation in physics around the world. We strive to make physics accessible to people from all backgrounds.

We work to break down barriers preventing people from under-represented groups becoming physicists.

We bring physicists in the UK, Ireland and around the world together to share knowledge, support each other and build the teams which deliver breakthroughs.

We share those breakthroughs and other research in a wide range of journals.

We help turn scientific discoveries into real world applications.

We make sure physicists have a voice in the big debates of our age, about education, science, innovation and wider policy.

And we help physicists share the wonder and excitement they feel about their subject with the next generation of potential physicists, from all walks of life.

iop.org



Oifig Maoine
Inteleachtúla na hÉireann
Intellectual Property
Office of Ireland

Intellectual Property Office of Ireland

7

The Intellectual Property Office of Ireland, IPOI is a statutory office operating under the aegis of the Department of Enterprise, Trade and Employment. The role of the IPOI is to provide an efficient and effective system of industrial property protection, 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). For more information on intellectual property, you can check out www.ipoi.gov.ie or follow us on Facebook, Twitter, LinkedIn and Instagram.

www.ipoi.gov.ie



Irish Aid
An Roinn Gnóthaí Eachtracha
Department of Foreign Affairs

50
YEARS

Irish Aid at the Department of Foreign Affairs

42, 43

Irish Aid at the Department of Foreign Affairs, is Ireland's official overseas development assistance (ODA) programme. This year will mark Irish Aid's 50th Anniversary, set up in 1974, it's ODA programme aims to reduce global poverty, hunger and humanitarian need. Ireland is committed to the delivery of the Sustainable Development Goals (SDGs), for peace and prosperity for people and the planet. We work through partners in more than 130 countries.

www.irishaid.ie



Irish Coast Guard

HALL 2

The Irish Coast Guard provides a nationwide maritime emergency organisation as well as a variety of services to shipping and other government agencies



Irish Science Teachers' Association

52

The Irish Science Teachers' Association is the professional association for science teachers in Ireland. It was founded in 1961 and has a membership in excess of 1200 members. The ISTA is a member of the International Council of Associations for Science Education (ICASE) and is represented on the executive of this organisation. The ISTA functions as a body dedicated to the professional development of its members and the advancement of science teaching.

www.ista.ie



Junior Achievement Ireland

36

Junior Achievement Ireland (JAI) is a member of one of the world's largest educational non-profits, helping prepare young people for their futures by delivering hands-on, experiential learning in entrepreneurship, employability, financial literacy and the value of STEM. Reaching more than 12 million young people globally each year, Junior Achievement (JA) is one of few organisations with the scale, experience, and passion to build a brighter future for the next generation. JAI was established in Ireland in 1996 and since then has built up a strong demand from schools throughout the country and created successful partnerships with 150 leading organisations. JAI inspires and motivates young people to succeed in the changing world of work by equipping them with the skills, knowledge and confidence they need. We work directly with young people, schools and the business community to help build a successful and sustainable future for all young people and society at large. We utilise the experience of those already in the workforce to help young people of all ages to fully understand the important role that education will play in shaping their futures. This year over 3,000 JA business volunteers are acting as role models from the working world – they are recruited, trained, vetted, equipped and supported to deliver hands-on learning experiences in primary and second level schools. Through our entrepreneurship, employability, financial literacy and STEM programmes we aim to encourage young people to stay in school and help them realise their potential in order to empower a generation to learn, to work and to live.

www.jai.ie



Lismore Heritage Centre

40

A curious minds centre based in Co. Waterford that provides engaging STEM outreach programmes.

www.discoverLismore.com



The Marie Keating Foundation

49

The Marie Keating Foundation provides cancer information and cancer awareness to members of the public.

www.mariekeating.ie



Maynooth University

31

In 2023 Maynooth University ranked #1 in Ireland in the Times Higher Education 'Best Young University' rankings.

Located 25km outside of Dublin and recognised among the top 500 universities in the world, Maynooth University is a place of lively contrasts—a modern institution, dynamic, rapidly-growing, research-led and engaged, yet grounded in historic academic strengths and scholarly traditions.

With over 15,000 students from over 100 countries, we offer a range of programmes at undergraduate, master's and PhD level in the humanities, science and engineering, and social sciences, including international programmes and partnerships.

Undergraduate programmes in the Faculty of Science and Engineering:

- Biological and Biomedical Sciences
- Biological and Geographical Sciences
- Biotechnology
- Business with Sport Science
- Computational Thinking
- Computer Science
- Data Science
- Engineering
- Food Science and Human Nutrition
- Pharmaceutical and Biomedical Chemistry
- Physics with Astrophysics
- Psychology
- Robotics and Intelligent Devices
- Science
- Science / Maths / Computer Science (with Education)
- Sport Science and Health
- Theoretical Physics and Mathematics

www.maynoothuniversity.ie/faculty-science-engineering



Met Éireann

19

Our 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 our customers.

Our Vision - Making Ireland Weather and Climate Prepared.

www.met.ie



Meta Platforms Ireland

24

Giving people the power to build community and bring the world closer together. Our products empower more than 3 billion people around the world to share ideas and offer support. The metaverse is the next evolution in social connection and the successor to the mobile internet and we are building the future of connection in the metaverse.

www.meta.com



National Apprenticeship Office

37

Apprenticeship is an exciting and proven way for employers to develop talent for their company and industry. They are designed by industry-led groups, supporting growth and competitiveness.

Apprentices earn while they learn and build valuable work-ready skills in a chosen occupation. Apprenticeships open up exciting and rewarding careers, with learning grounded in the practical experience of undertaking a real job.

Apprenticeship has long been an accelerator for individual and corporate development in Ireland.

Helping more people discover and develop their talents through training is at the heart of the national apprenticeship system.

www.apprenticeship.ie



Centre for Excellence in Universal Design (CEUD)

50

The National Disability Authority (NDA) is the independent statutory body that provides information and advice to the Government on policy and practice relevant to the lives of persons with disabilities. We work through our Centre for Excellence in Universal Design (CEUD) to promote Universal Design of the built environment, products, services and information and communication technologies.

Universal Design is the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people, regardless of their age, size or disability. A Universal Design approach involves a diverse range of users in the design process from an early stage. If an environment is accessible, usable, convenient and a pleasure to use, everyone benefits. By considering the diverse needs and abilities of all throughout the design process, universal design creates digital and built environments, services and systems that meet peoples' needs. Simply put, universal design is good design.

At the Centre we work to develop guidelines based on international best practice, and contribute to National and European standards as well as highlighting good practice in relation to Universal Design. We also engage with a wide range of professional bodies to build awareness of Universal Design in Education (UDE) across the education system and through continuous professional development.

The development of guidelines and standards by the Centre provides stakeholders with practical and easy to use information and advice on how to ensure society is as inclusive as possible.

www.universaldesign.ie



National Parks & Wildlife Service

6

The National Parks and Wildlife Service is part of the Department of Housing, Local Government and Heritage, and has responsibility for the protection and conservation of Ireland's natural heritage and biodiversity at national government level. Our stand will have exhibits, information leaflets and posters available to all in attendance. It also gives the public a chance to meet our staff to discuss activities available within the NPWS.

Education & Visitor Centres

The NPWS Education & Visitor Centres around the country offer various activities and learning opportunities for teachers and students alike. Our Education Officers have designed school programmes aimed at promoting awareness of, knowledge and an appreciation of our biodiversity.

National Biodiversity Action Plan

Consultation on Ireland's next National Biodiversity Action Plan has been ongoing in 2022. The next NBAP will set out a vision for an Ireland in 2050 in which biodiversity is valued, conserved, restored, and sustainably used

maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people in society.

Further information on all of the above is available on www.npws.ie



The Ombudsman for Children's Office (OCO)

29

The Ombudsman for Children's Office (OCO) is a human rights institution that promotes the rights and welfare of young people under 18 years of age living in Ireland. The OCO also investigates complaints about services provided to children by public organisations. The service is free and independent.

www.oco.ie



Queen's University Belfast - School of Electronics, Electrical Engineering and Computer Science

32

Our School is the largest and one of the most dynamic in the University. It is accredited with an Investors in People Silver Standard in recognition for our efforts in developing our people to excel and be deep thinkers and future leaders. We work in world class facilities, including a brand new £14m Computer Science Building, the ECIT Institute in the Titanic Quarter, and the Ashby Building.

With over 500 active industry partnerships, our research achieves societal and economic impact, while generating hundreds of jobs to the local economy. The industry is extensively involved in all our courses through embedded teaching, placement or scholarships. Most of our undergraduates spend one full paid year working in industry as part of their degree. On average, employment success rates for graduates from the School are greater than 85% within six months, a statistic not bettered by many others.

Computing and communications technology influences so much of how we live today - the way we communicate, travel, make financial transactions, or receive medical care. A degree from the School of Electronics, Electrical Engineering and Computer Science (EECS) squarely positions our graduates within an industry that will impact the way we live today and in the future.

www.qub.ac.uk/schools/eeecs/



Road Safety Authority

SEE MAIN MAP (Pages 34-35)

Recognised as the leading voice for road safety in Ireland and as a leading voice internationally. This recognition is built upon a strong record of driving positive change in the attitudes and behaviours of all road users, while effectively collaborating with many stakeholders such as An Garda Síochána and the Health and Safety Authority to save lives.

The mission of the RSA is of making Irish roads safer for everyone involves delivering some key functions:

- Road safety promotion, education and awareness
- Road safety and collision research
- Primary responsibility as the lead agency for the governance and implementation of the government's Road Safety Strategy
- Driver testing and driver licensing
- Governance and supervision of the National Car Testing Service and Commercial Vehicle Roadworthiness Testing
- Enforcement of a range of road haulage industry and driver regulations
- Regulation of the driving instruction industry
- Development and monitoring of vehicle standards
- Advising the Department of Transport and the Minister for Transport on all aspects of road safety public policy.

www.rsa.ie



RTÉ

RTÉ | Raidió Teilifís Éireann

33

RTÉ is back live from BTYSTE 2024 11-13th January. RTÉ 2FM and RTÉ Raidió na Gaeltachta will be broadcasting live from our radio studio with some special guests popping in to say hello too. We are very excited for RTÉ 2FM Rising artist Ryan Mack's live performance on the main stage, during the opening ceremony. Fancy trying your hand at presenting the weather? We have lights, cameras, autocue and blue screen ready for you to give it a try in our RTÉ Weather studio. The RTÉ Weather presenters will be on hand to give you a few tips too. Visit the RTÉ Studio in the Exhibition Hall and keep up-to-date with RTÉ at BTYSTE on Twitter, Facebook and Instagram.

www.rte.ie



Rugby Players Ireland / TYF Schools

12

RPI is the association of elite rugby players in Ireland. We are a not for profit association that represents the players in negotiations with rugby's governing body, the IRFU. We will be at BTYS to promote our mental wellbeing campaign Tackle Your Feeling Schools. TYF Schools launched in 2019 and is designed for students over 14 years old.

www.rugbyplayersireland.ie



Self Help Africa

44

Self Help Africa is an Irish-based international development organisation that is working through agriculture to alleviate poverty in 17 of the world's poorest countries.

The organisation applies agriculture and climate science in its responses to the challenges of supporting resource poor communities grow food and earn an income from small farms.

Self Help Africa has been working for more than 40 years to eradicate hunger and extreme poverty in Africa. In 2022 its programmes will support close to six million people.

Science has a key role to play in addressing the challenges of rural poverty in sub-Saharan Africa. By providing smallholder farmers with access to better quality seed, to new crop varieties, and by promoting and introducing new farming methods, Self Help Africa supports communities to adapt to and mitigate the effects that changing climate and extreme weather is having on people who rely on the land to support themselves and their households.

For 20 years, Self Help Africa's Global Citizenship Education (Development Education) team has been attending the BT Young Scientist and Technology Exhibition, where it promotes its work to students and teachers, and also promotes the 'Science for Development Award,' an Irish Aid sponsored competition that encourages and assists student entrants to devise projects for BTYSTE that might address some of the challenges that affect poor communities in Africa.

Winning student projects at BTYSTE receive a travel bursary, sponsored by Irish Aid, that enables the project winners and their teacher to travel on an annual Self Help Africa school's study visit to Africa, where they can learn more about their project from people they meet.

Self Help Africa's Global Citizenship Education team also provide workshops in Irish secondary schools that assist students and teachers to address global development challenges.

www.selfhelpafrica.org



Sightsavers Ireland

53

Founded in 2003, Sightsavers Ireland envisions a world where no one is blind from avoidable causes and where people with disabilities participate equally in society. Sightsavers Ireland works with Sightsavers globally, through an affiliate agreement, to eliminate avoidable blindness and promote the rights of people with disabilities in 30 countries focussing on Africa and Asia. We seek to contribute to the Sightsavers global mission through the provision of steady and dependable funding from the Irish market, securing and managing funding from the Irish government, and engaging and influencing the Irish public and policy/decision makers on matters relating to eye health and social inclusion in low and middle-income countries.

www.sightsavers.ie



Stripe Press

14

Stripe is a financial infrastructure platform for businesses, headquartered in Dublin and San Francisco.

Millions of companies—from the world's largest enterprises to the most ambitious startups—use Stripe to accept payments, grow revenue, and accelerate new business opportunities.

Our mission is to increase the GDP of the internet.

Through Stripe Press, our publishing imprint, we share ideas for progress in science, technology, and economics. Some of our books contain entirely new material, some are collections of existing work reimagined, and others are republications of previous works that have remained relevant over time or have renewed relevance today.

Stripe Press shares the exhibition booth with Patch, a summer accelerator for ambitious young people who want to push the world forward.

We hope our work can inspire optimism, catalyse research and development, increase entrepreneurship, and, ultimately, accelerate progress.

press.stripe.com joinpatch.org



StudyClix

27

StudyClix is Ireland's largest teaching and learning website. We make learning easier by breaking down all the junior and leaving cert subjects into topics. We give past exam questions, mock questions, quizzes, videos and notes.

www.studyclix.ie



Teagasc - Agriculture and Food Development Authority 20

Teagasc, otherwise known as the Agriculture and Food Development Authority, is an Irish state agency dedicated to supporting the agricultural and food sector through research, advisory services, and education. Established in 1988, Teagasc plays a crucial role in driving innovation, sustainability, and competitiveness within Ireland's farming and agri-food industries.

One of Teagasc's primary functions is to conduct cutting-edge research across various agricultural and food-related disciplines. Their research efforts encompass areas such as crop science, animal husbandry, food technology, and environmental sustainability. By staying at the forefront of scientific advancements, Teagasc contributes valuable insights and practical solutions to the challenges faced by the Irish agricultural community. This research not only enhances the productivity and efficiency of farming practices but also addresses environmental concerns and promotes sustainable development.

In addition to research, Teagasc provides vital advisory services to farmers and agri-businesses. Through a network of advisory offices and specialists, Teagasc offers expert guidance on topics ranging from crop management and livestock husbandry to business planning and rural development. This advisory support



helps farmers make informed decisions, adopt best practices, and navigate the complexities of modern agriculture.

Education is another cornerstone of Teagasc's mission. The agency operates agricultural colleges and training centers across Ireland, offering a range of courses and programs for individuals pursuing careers in agriculture and related fields. By providing quality education and training, Teagasc contributes to the development of a skilled and knowledgeable workforce that is essential for the future sustainability of the agriculture and food sectors.

Overall, Teagasc plays a pivotal role in shaping the trajectory of Ireland's agricultural and food industries.

Through a holistic approach that includes research, advisory services, and education, Teagasc supports the growth and resilience of the sector while addressing emerging challenges and opportunities in a rapidly evolving global landscape.

www.teagasc.ie



The Heritage Council

5

Established under The Heritage Act 1995, the Heritage Council is a public body whose mission is to develop a wide understanding of the vital contribution that our heritage makes to our social, environmental & economic well-being.

The Heritage Council has a particular responsibility to promote interest, education, knowledge and pride in national heritage. In its current strategic plan "Our Place in time" the Heritage Council has set out its core principles and goals. The Heritage Council provides policy advice for government on heritage issues that include sustainability, landscape management, high nature value farming, forestry and climate change. Since our establishment in 1995, we have put in place heritage infrastructure and networks to enable communities participate in and take responsibility for the development and conservation of the heritage of their areas. Success has been achieved through working in partnership with local authorities and statutory agencies. The results of such projects include the Collaborative Town Centre Health Check Programme, the Heritage Officer Programme and a wide range of projects undertaken under the Community Heritage Grant Scheme.

The Heritage Council has a complex national brief across natural, cultural and built heritage which places a heavy and welcome reliance on us to work with others to achieve common aims together. In addition, the Heritage Council provides core funding to a number of bodies in order to support the needs of the sector and to help achieve shared aims.

The projects and initiatives we fund, participate in or support in other ways are carried out in line with best conservation practice. They help support and maintain a wide network of highly-skilled heritage professionals that includes conservators, thatchers, builders, ecologists, archaeologists, conservation architects and museum curators.

The Heritage Council, Áras na hOidhreachta, Church Lane, Kilkenny, R95 X264.

www.heritagecouncil.ie



SEFS UCC - Science Engineering and Food Science, University College Cork

48

University College Cork (UCC) is an award-winning institution with a history of independent thinking stretching back over 170 years. UCC is ranked in the top 1.1% of universities in the world with a student population of over 24,500.

UCC is renowned for the quality of its academic programmes and commitment to research and innovation. UCC has been named the leading Irish University for industry engagement and is located at the centre of Europe's Biotechnology and Information and Communications Industries.

The university is known for the beauty of its campus, vibrant student life and is home to over 100 active societies and 50 different sports clubs.

UCC places a strong emphasis on student engagement, fostering a supportive community that encourages critical thinking and independent exploration.

With a commitment to sustainability and inclusivity, UCC plays a vital role in shaping Ireland's academic landscape and producing graduates who make meaningful contributions to society.

www.ucc.ie/en/sefs



University of Galway

46

The University of Galway is a public research university located in the city of Galway, Ireland. The university was founded in 1845 as "Queen's College, Galway". It was known as "University College, Galway", until 1997 and as "National University of Ireland Galway", until 2022.

www.universityofgalway.ie



University of Limerick

39

UL's (www.ul.ie) stand provides you the opportunity to experience interactive activities in Biology, Chemistry, Physics, Mathematics, Engineering, Electronics, Equine Science, Architecture, Design, Computer Science, Gaming and much more. The Faculty of Science and Engineering (www.ul.ie/scieng) offers teaching and research programmes in a wide range of industry relevant scientific and engineering disciplines. All UG programmes include periods of co-operative, industrial or teaching experiences. Its world-leading research translates into practice and the academic programmes offer unique & sustainable careers. If you are interested in studying artificial intelligence, the pursuit of renewable energy technologies or the development of innovative company solutions find out more about the opportunities available at our stand.

www.ul.ie/scieng



Wind Energy Ireland

26

Wind Energy Ireland (WEI) is the representative body for the Irish wind industry, working to promote wind energy as an essential, economical and environmentally friendly part of the country's low-carbon energy future.

We are leaders in Ireland's fight against climate change. We know that education is key to delivering this. We are inspired and encouraged by the ambition and drive among young people in this area.

We create jobs, invest in communities, reduce our CO₂ emissions and work to end Ireland's reliance on foreign fossil fuels.

We are Ireland's largest renewable energy organisation with more than 190 members who have come together to plan, build, operate and support the development of the country's chief renewable energy resource. We are an all-Ireland body, working in Northern Ireland through a partnership with our colleagues in RenewableUK.

windenergyireland.com



Young Scientist & Technology Kenya & Jordan Young Scientist & Technology

45

Recognising the important contribution that the Young Scientist initiative has made to economic and social development in Ireland since its foundation, it is fitting that this experience can similarly inform and contribute to the evolution of emerging economies in the Global South. National Young Scientist programmes, based on the original Irish model, established Kenya and Jordan are exhibiting at BTYST2024. Winners from Young Scientist & Technology Kenya and Jordan Young Scientist & Technology will be exhibiting at the exhibition. Please call down to say hello and learn more about their amazing in country programmes.



Celebrating 60 years of science and technology



1965

John Monahan



1966

Máire Caitríona Ní
Dhomhnaill / Mary Finn



1967

Walter Hayes R.I.P.



1968

George Andrew
Reynolds



1969

Luke Drury



1970

Maria Edgeworth



1977

Micheal Og O'Brian



1978

Donald P McDonnell



1979

Jervis Good



1980

Karen Ruddock



1981

Catherine Conlon



1982

Martynn Sheehan



1989

Grace O'Connor,
Sinead Finn



1990

Anna Minchin-Dalton



1991

Barry O'Doherty,
Daniel Dundas



1992

Elizabeth Dowling,
Jean Byrne R.I.P.



1993

Donal Keane,
Rodger Toner



1994

Jane Feehan



2001

Shane Browne,
Peter Taylor,
Michael O'Toole



2002

David Michael
O'Doherty



2003

Adnan Osmani



2004

Ronan Larkin



2005

Patrick Collison



2006

Aisling Judge



2013

Ciara Judge,
Emer Hickey,
Sophie Healy-Thow



2014

Paul Clarke



2015

Ian O'Sullivan,
Eimear Murphy



2016

Diana Bura,
Maria Louise Fufezan



2017

Shane Curran



2018

Simon Meehan

Years of scientific innovation



1971

Peter Short



1972

Seán Mac Fheorais



1973

Tadgh Begley



1974

Richard Elliott



1975

Noel Boyle



1976

Mary Kelly-Quinn



1983

William Murphy,
Gareth Clarke,
Turan Mirza



1984

Eoin Walsh



1985

Ronan McNulty



1986

Breda Maguire,
Niamh Mulvaney



1987

Emma Donnellan,
Henry Byrne



1988

Siobhan Lanigan
O'Keeffe



1995

Brian Fitzpatrick,
Shane Markey



1996

Elsie O'Sullivan,
Rowena Mooney,
Patricia Lyne



1997

Ciara McGoldrick,
Emma McQuillan,
Fiona Fraser



1998

Raphael Hurley



1999

Sarah Flannery



2000

Thomas Gernon



2007

Abdusalam
Abubakar



2008

Emer Jones



2009

John D. O'Callaghan,
Liam McCarthy



2010

Richard O'Shea



2011

Alexander Amini



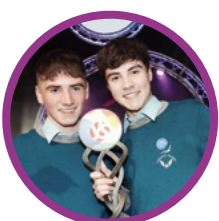
2012

Eric Doyle,
Mark Kelly



2019

Adam Kelly



2020

Alan O'Sullivan,
Cormac Harris



2021

Greg Tarr



2022

Aditya Joshi,
Aditya Kumar



2023

Shane O'Connor,
Liam Carew



2024

Seán O'Sullivan



The Primary Science Fair

The Primary Science Fair has been an exciting part of the BT Young Scientist & Technology Exhibition for over 15 years and allows those students in primary school with an interest in science and technology to be an integral part of one of the world's leading and longest-running school science exhibitions.

For more information, visit our website

<https://btyoungscientist.com/the-primary-science-fair-at-btyste>



Thursday 11th of January

Lights Camera Satisfaction

Scoil Muire Lourdes, Co. Carlow

Hearing sound and when sound becomes a problem.

Scoil Naomh Bríd, Ballyconnell, Co. Cavan

Exploring Lunar Phases and their Impact on Sleep Patterns

Ballyhass NS, Co. Cork

An Investigation into Natural Fertilisers and their Effectiveness

Barryroe NS, Co. Cork

'The Dance of the Honey Bee' - Fact or Fiction?

Derinagree NS, Derinagree, Mallow, Co. Cork

We all love to smile, so we are putting some drinks on trial

St. Joseph's Girls National School Clonakilty, Co. Cork

Germ Hotspots in Our School

St. Joseph's Girls Primary School Clonakilty, Co. Cork

GOGGINS HILL TAKING OFF: A project on Cork Airport

Goggins Hill National School, Co. Cork

Hydration levels of drinks

Scoil Eoin Baiste, Co. Donegal

Paper or Screen? Which is more effective, learning from a book or from a screen?

Scoil San Treasa, Co. Dublin

You have a healthy lunch but how healthy is your lunch box?

Scoil San Treasa, Co. Dublin

Investigating the value of homework.

Scoil Bhríde, Co. Dublin

Are plants fussy drinkers?

Kill'o the Grange National School, Co. Dublin

Is there an impact on learning depending on the type of school you attend?

St. Patrick's BNS, Hollypark, Co. Dublin

Are diet fizzy drinks actually a healthier alternative?

St. Attracta's Senior National School, Co. Dublin

Are our clothes responsible for climate change?

St. Attracta's Senior National School, Co. Dublin

Extend the shelf life of our EGGcellent homebred hen egg naturally

Knockmore School, Co. Dublin

Does having older siblings give you a higher percentage of being an elite athlete?

Holy Family SNS, Co. Dublin

Can You Really Forecast the Weather?

St. Kilian's SNS, Co. Dublin

Human vs AI: Can you tell the difference?

St. Damian's NS, Co. Dublin

Beautiful, inside and out

Dun Laoghaire ETNS, Co. Dublin

Snake Cannibalism

Dun Laoghaire ETNS, Co. Dublin

Books vs Screens

Dun Laoghaire ETNS, Co. Dublin

Why is diet coke and baking soda more explosive than coke and mentos?

Dun Laoghaire ETNS, Co. Dublin

How do birds find their way when migrating?

Dun Laoghaire ETNS, Co. Dublin

How to make an explosion 101

Dun Laoghaire ETNS, Co. Dublin

How long does the average human live for?

Dun Laoghaire ETNS, Co. Dublin

The Wood Wide Web

Dun Laoghaire ETNS, Co. Dublin

Cars vs Bikes

Dun Laoghaire ETNS, Co. Dublin



Thursday 11th of January (continued)

Do animals have thoughts and feelings?

Dun Laoghaire ETNS, Co. Dublin

What makes the best ball launching machine?

Brierhill NS, Co. Galway

Línte na Farraige - a more sustainable future

Cuan na Gaillimhe CNS, Co. Galway

Does Climate change mean we have to change our Summer holidays?

Knockanes Mxd National School, Co. Kerry

House of the Future - A Dream or a Reality for all?

Moyderwell Mercy, Co. Kerry

How can chewing gum affect the body?

SN Colmcill Naofa, Co. Kildare

How Does Prime Energy Effect Your Body?

S.N. na Maighdine Mhuire, Co. Kildare

Why Are Axolotls Endangered?

S.N. na Maighdine Mhuire, Co. Kildare

Spiders, What Are They?

S.N. na Maighdine Mhuire, Co. Kildare

Are Wasps Helpful?

S.N. na Maighdine Mhuire, Co. Kildare

Does the type of liquid affect seed germination

Dulargy NS, Co. Louth

An investigation into factors that affect the dispersal distance of Helicopter seeds

Dulargy N.S., Co. Louth

To Treat or not to Treat - That is the Question

St. Joseph's NS, Co. Mayo

Why are Hedgerows important for Biodiversity and Agriculture?

Clonown NS, Co. Roscommon

I spy with my little eye.

St Colman's N.S. Ballindaggin, Co. Wexford

Friday 12th of January

The impact of pollution on humans & animals

Glenville National School, Co. Cork

We want your waste

Timoleague NS, Co. Cork

How changes effect the ocean.

Kilcoe NS, Co. Cork

How can we make vegetables taste nicer?

St.Mary's College Junior School, Co. Dublin

Can our sense of smell trick our sense of taste?

St. Vincent de Paul Girls' School, Co. Dublin

How Magnets Can improve our Future.

St Pius X BNS Terenure, Co. Dublin

Are Fingerprint Patterns Inherited?

Our Lady of the Wayside NS, Kiltarnan, Co. Dublin

A Comparative Sugar Content Study of Supermarket Own Brand Breakfast Cereals

Scoil Choilm Community National School, Co. Dublin

How to create a healthy sports drink

Lycee Francais International Samuel Beckett, Co. Dublin

Can wearable technology such as a Smart Watch or FitBit improve children's health and well-being?

Pope John Paul II N.S., Co. Dublin

The Five Second Rule: Fact or Fiction?

Pope John Paul II N.S., Co. Dublin

Estuary Science: When Fresh Water Meets Sea Water

Pope John Paul II N.S., Co. Dublin

Estuary Science: When Fresh Water Meets Salt Water

Pope John Paul II N.S., Co. Dublin

The Science of Drones

Pope John Paul II N.S., Co. Dublin

Battle of the Senses: Taste Versus Smell

Pope John Paul II N.S., Co. Dublin

Mathematicians

Annagh Hill NS, Co. Galway

Can you grow seeds with sparkling water? A child-led inquiry into the effect that different types of water have on seed germination

St. Brigid's Primary School, Co. Kildare

An investigation into the effects of different conditions on food decomposition

St. Brigid's Primary School, Co. Kildare

Eat well for your microbiome

S N Moin Ruadh, Co. Kilkenny

How do different conditions affect the growth of plants?

Kilkenny School Project, Co. Kilkenny

The Effects of Exercise on our Body Systems.

Derrylamogue National School, Co. Laois

Conas a obríonn na tonta? / How do waves work?

Gaelscoil Longfoirt, Co. Longford

The Science of Dogs

St. Michael's N.S. Kill, Co. Meath

Cois mara sa Rinn

Scoil na Leanaí, Co. Waterford

Rethink your drink

Bunscoil Loreto Gorey, Co. Wexford

Program a Sphero to Navigate a Simple Maze and Test the Best Material for Movement

Bunscoil Loreto, Co. Wexford

What is the best material for your winter coat?

Bunscoil Loreto, Co. Wexford

Does physical activity aid our concentration in school?

Bunscoil Loreto, Co. Wexford

Do you Taste with your Eyes?

Avoca N.S., Co. Wicklow

How Does Fizzy Drinks Affect Our Teeth

St Brigid's N.S. Co. Wicklow



THE BT YOUNG SCIENTIST
BUSINESS BOOTCAMP

BT YS Business Bootcamp

Programme for students

A number of the exhibiting intermediate and senior students from the 2024 BT Young Scientist & Technology Exhibition will be invited to take part in a BT Young Scientist Business Bootcamp from 4th to 7th 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 is expect to be held at UCD, subject to Covid-19 guidelines.





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.”

FORMER PARTICIPANT



BT YS Bootcamp 2023 highlights

<https://www.youtube.com/embed/J1Dmn21yIsY>



in association
with UCD Innovate

Events schedule

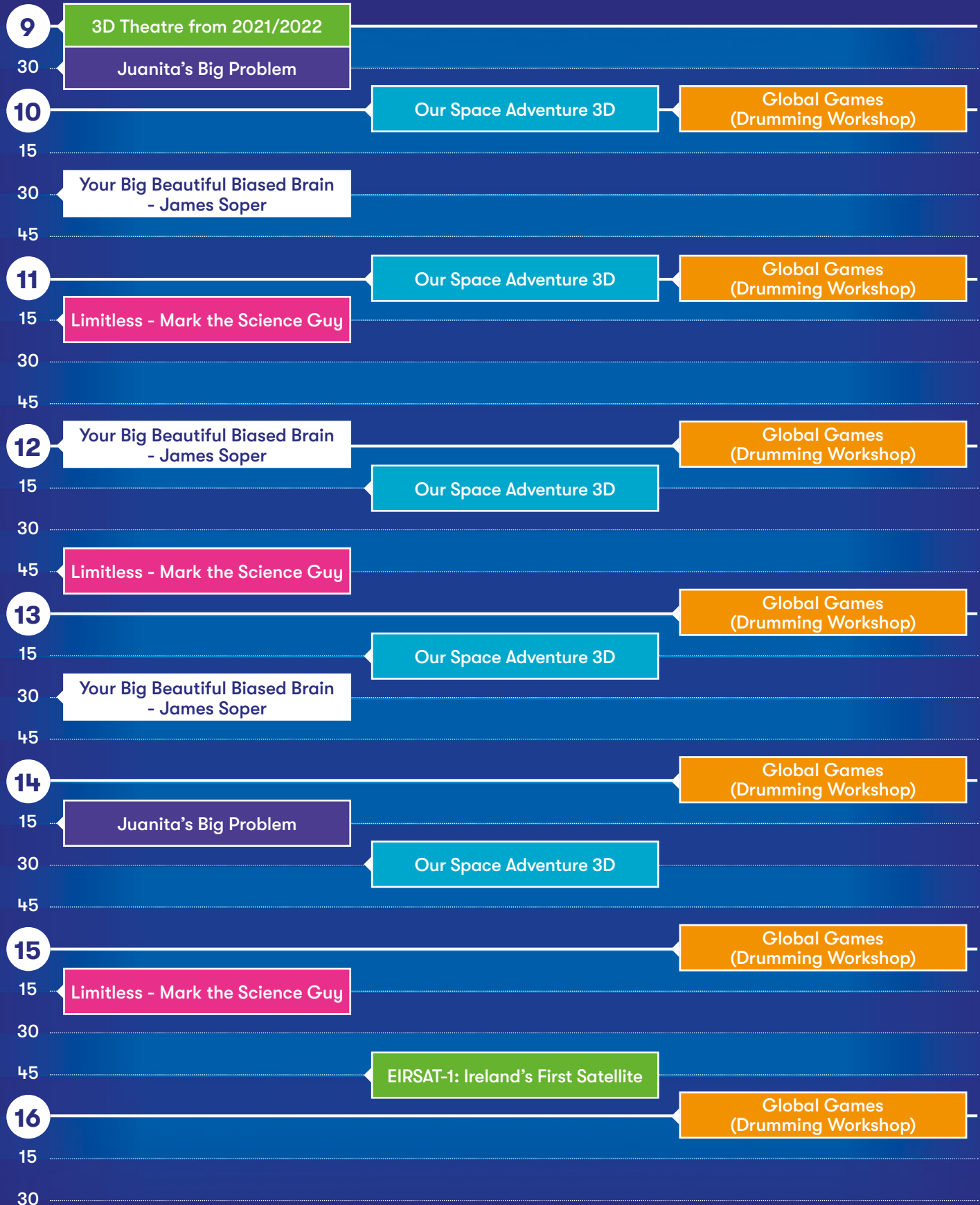
Thursday 11th January



BT ARENA

CONCERT HALL

CLYDE ROOM FOYER



Events schedule

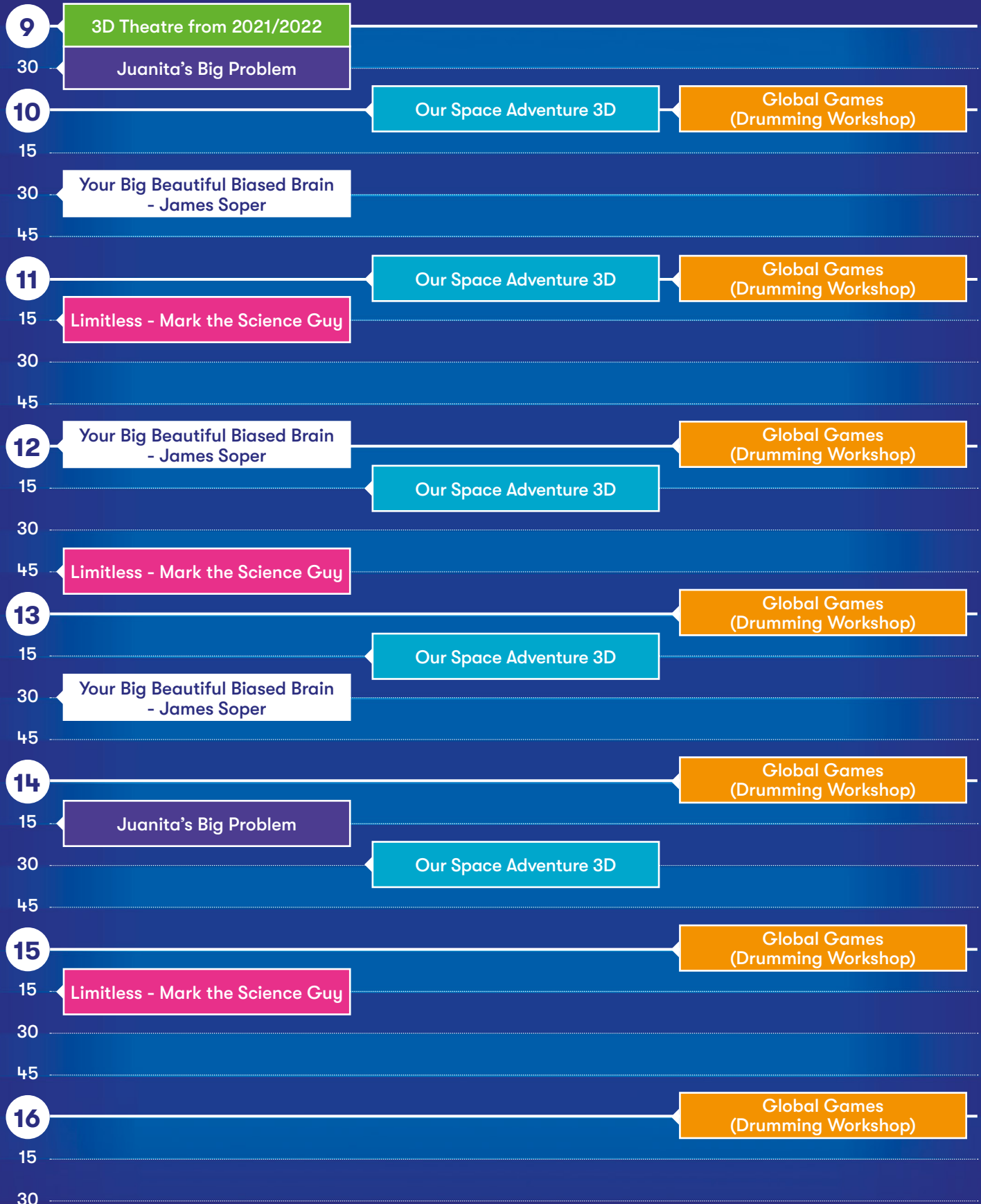
Friday 12th January



BT ARENA

CONCERT HALL

CLYDE ROOM FOYER



Events schedule

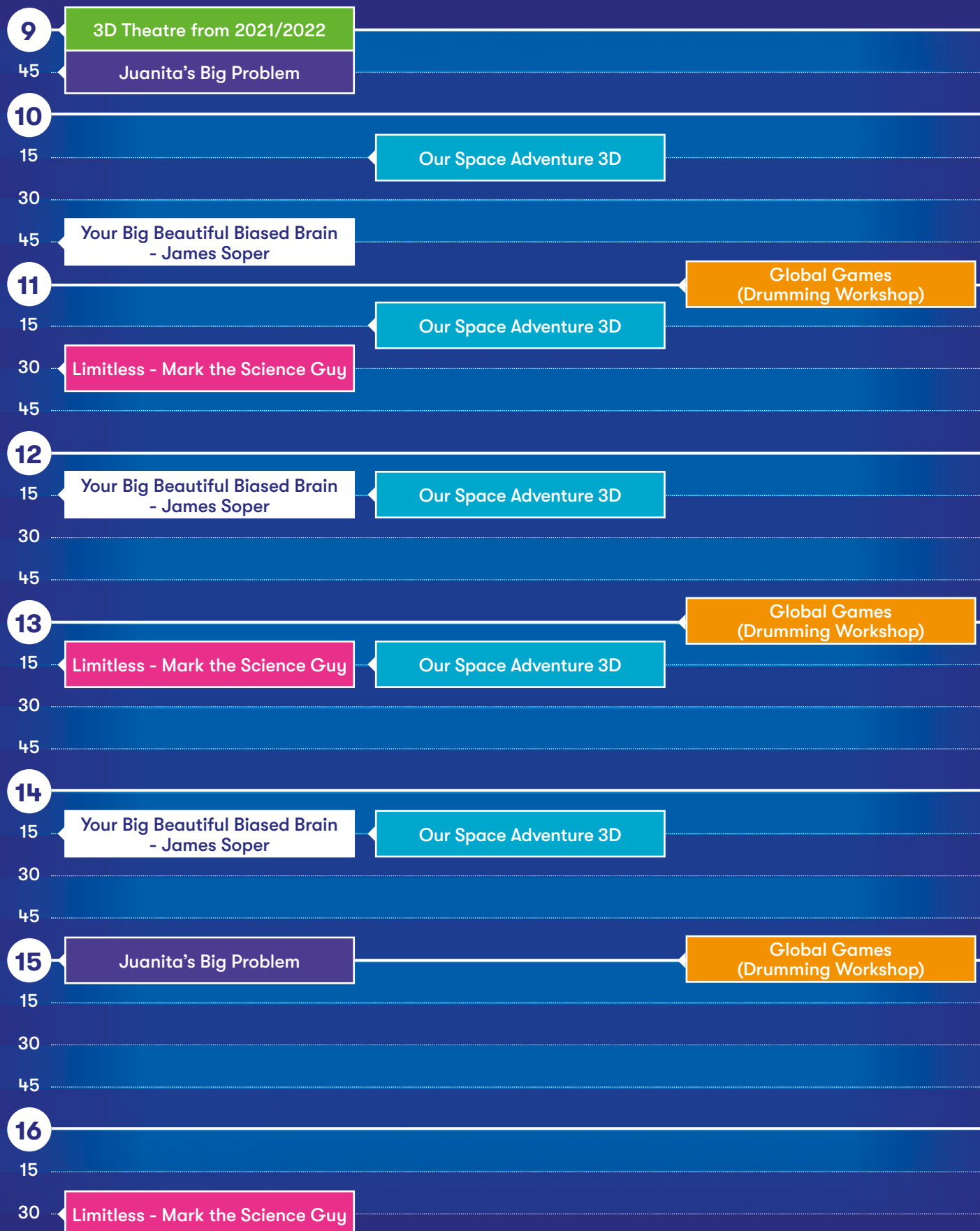
Saturday 13th January

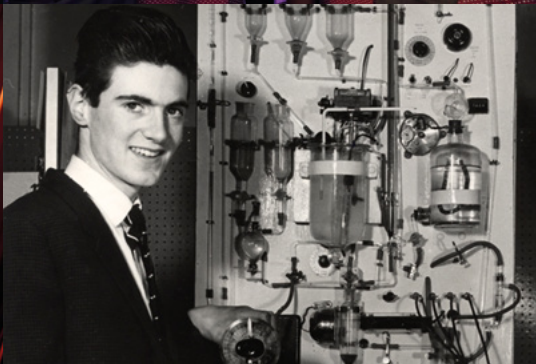


BT ARENA

CONCERT HALL

CLYDE ROOM FOYER







BT's origins date back to the very first communications company, the Electric Telegraph company, founded in 1846. Today BT is one of the world's leading providers of managed telecommunications, security and network and IT infrastructure services to customers across 180 countries.

BT's purpose is as simple as it is ambitious: we connect for good. There are no limits to what people can do when they connect. We are proud to organise the BT Young Scientist & Technology Exhibition (BTYSTE) because we are passionate about increasing youth engagement in science and technology. We want to provide students with a platform to showcase innovative ideas nationally and internationally so that all participants can tackle the biggest challenges and "connect for good".

BT in Ireland

We employ over 650 people in the Republic of Ireland where we partner with organisations that use our portfolio of end-to-end technology solutions. Our job is to help companies to solve and manage their complex communication needs using our global network. 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 much 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

BT's "connect for good" purpose helps make the world a better place. We're committed to respecting and supporting the human rights and freedoms of all those touched by our business – our colleagues, customers, supply chain workers and wider communities.

We are a leader on climate and sustainability action. Our ambition is to adopt a sector-leading approach to climate action, with a target to become a net zero target for operational emissions by end of March

2031 and end to end emissions by end of March 2041.

Just like our global colleagues, our Irish employees support numerous good causes and we work hard to make a positive impact on society through volunteering, fundraising and financial contributions. Each year, BT employees are allocated three days volunteering leave, some of which will be used to organise BTYSTE.

In 2021, BT was awarded the Business Working Responsibly Mark® for the second time, the official standard of excellence for sustainability and corporate social responsibility. We were one of the inaugural Irish signatories of the Low Carbon Pledge® and, in 2021, the first signatory in Ireland of a new Inclusive Workplace Pledge®.

We have been recognised as one of Ireland's healthiest places to work for five consecutive years. A Healthy Place to Work® is one where people understand the purpose of their work and how it aligns with the organisation; are part of a learning environment where they are able to adapt and grow; have connections with others and the organisation that allow them to be at their best; and where people have the energy to sustainably deliver on their and the organisation's objectives.

Northern Ireland

BT is one of the largest private sector employers in Northern Ireland. 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