



**BT YOUNG SCIENTIST
& TECHNOLOGY Exhibition**

8 - 11 January 2025

RDS Dublin

2025

**EXHIBITION
GUIDE**

      #BTYSTE

www.btyoungscientist.com

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BT YOUNG SCIENTIST & TECHNOLOGY Exhibition

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BTYSTE 2025 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

Managing Director, BT Ireland

It is my pleasure to welcome you to the 61st edition of the Young Scientist & Technology Exhibition. For over 60 years, the exhibition has been a wonderful celebration of curiosity, science and technology. The students who have taken part over those decades have generated incredibly creative and successful ideas and innovations helping establish Ireland as a leader in STEM (science, technology, engineering and maths).

The year 2025 marks the 25th anniversary of BT Ireland serving as custodian, organiser and sponsor of this exhibition. The delivery of the exhibition can only happen with the support of our 150 BT colleagues, who volunteer their time each year to help run the exhibition for all those involved.

For the past 25 years BT has proudly introduced numerous initiatives to the exhibition:

- In 2001, the new Technology category was introduced.
- Also, in 2001 the Primary Science Fair was launched.
- In 2006 we introduced the Accommodation Grant Scheme to support schools that are over 70km away from the exhibition venue and to date we have paid almost €1.5m to schools.
- In 2009 we created the Business Bootcamp to help BTYSTE participants develop their ideas further into commercial enterprises, with the help of STEM industry experts.
- To celebrate the 60th exhibition, in 2024 a new category, Health and Wellbeing, was added to the exhibition.

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 their ideas could also help change the world for the better. The ongoing enthusiasm for STEM among 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 stewardship of the exhibition.

The volume of exceptional entries we received for the 2025 exhibition shows that interest in STEM continues to grow. Nearly half (49%) of all secondary schools in Republic of Ireland submitted a total of 2,000+ project entries for the exhibition this year. Our students have hugely impressed the judges with their projects exploring topics such as health, climate, artificial intelligence and sustainable tech, 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.

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

Exhibition partners

The **BT Young Scientist & Technology Exhibition 2025** is proudly sponsored and supported by;



An Roinn Oideachais
Department of Education





An Roinn Gnóthaí Eachtracha
Department of Foreign Affairs



Member of
JA Worldwide



We are with you.
Every step.





Awards

Main awards



BT Young Scientist & Technologist(s) of the Year 2025

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	2nd	3rd
€300 – £270	€225 – £202	€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

Stripe will present an award 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.

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.



Rev Dr Tom Burke bursary

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

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

Founders medal

A medal will be awarded in the name of the co-founders of the exhibition, Dr Tony Scott and Fr Tom Burke, a €1,000 award will be made to an individual who has made a remarkable and long standing contribution to the BT Young Scientist and Technology Exhibition. This is chosen by the Co-Founder Dr Tony Scott.



Special Awards

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

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.

abbvie



AMD



Judges



Health & Wellbeing

Aidan Ryan	Deirbhile Nic a Bháird	Jill Long	Dr. Sinead McCluskey
Prof. Áine Kelly	Dr. Edel Higgins	Prof. Joe Barry	Dr. Tara Cusack
Prof. Catherine Darker	Prof. Fionnuala McAuliffe	Prof. Jo-Hanna Ivers	Siobhan Aherne
Conor Faughnan	Prof. Helen French	Prof. Niall Moyná	
David Silke†	Prof. Jane McGrath	Dr. Olive Lennon	

Social & Behavioural Sciences

Caroline Gill	Prof. James O'Higgins Norman	Dr. Marion Palmer	Dr. Roisin Lyons
Darran Heaney	Dr. Jean Cushen	Michael Reidy	Dr. Sinéad Smyth
Prof. Des McCafferty	Dr. Katie Gilligan-Lee	Dr. Niamh Ní Shíadhail	Prof. Yseult Freeney
Fiona O'Callaghan	Dr. Liz Nixon	Dr. Nicola Millard	Jessica Bramham
Dr. Helen Connaughton	Lynda McSweeney	Dympna McCoy	
Prof. Ian Robertson	Dr. Maeve Martin	Dr. Orla Feeney	

Chemical, Physical & Mathematical Sciences

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

Technology

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

Biological & Ecological Sciences

Prof. Ann Cullinane	Prof. Evelyn Doyle	Prof. Karen McCreesh	Prof. Stephen Butler
Dr. Colin Kelleher	Dr. Fidelma Butler	Dr. Kathy O'Boyle	Dr. Tadhg Ó Cróinín
Prof. Donal O'Shea	Prof. Geraldine Butler	Prof. Mark Crowe	
Prof. Emer Rogan	Dr. John Monahan ^{*1965}	Prof. Mary Kelly-Quinn ^{*1976}	
Dr. Eoin Lettice	Prof. John O'Halloran	Dr. Richard O'Hanlon	

Additional screening judges

Prof. Seán Corish

BT Chairperson

Therese Gunning

Special Awards Chairperson

Padraig Dunne

★ Young Scientist of the Year past winner

2025 Project Quick Search

Project category

Health & Wellbeing	Social & Behavioural Sciences	Chemical, Physical & Mathematical Sciences	Technology	Biological & Ecological Sciences
1100 - 1610	2100 - 2610	3100 - 3610	4100 - 4609	5100 - 5608

School name/County

County	School Name	Project IDs
Antrim	Rathmore GS	2304
	St Dominic's High School	1305, 3209
	Carrignafoy Community College	1604
Armagh	St Patrick's High School	5407
	Carrigtwohill Post Primary	2108
Carlow	St Mary's Academy CBS	1402
	St. Leo's College	5536
	Christ King Girls' Secondary School	1204, 2102, 2203, 4401
Cavan	Breifne College	4602
	Loreto College	2566
	St Bricin's College	5541, 2409, 5103
	St Patrick's College	4218
	Virginia College	4523, 1548
	Christian Brothers College	1102, 5209
	Clonakilty Community College	1201, 1503, 2511, 3502, 5505
Clare	Ennistymon Community School	3104, 3610, 4604
	Mary Immaculate Secondary School	1307, 2536, 3100, 5205, 5216, 5219, 5220, 5311
	St John Bosco Community College	4601, 5507
	St Joseph's Community College	4403, 5402
	St. Joseph's Secondary School Spanish Point	5514
	St. Joseph's Secondary School Tulla	2202, 3405, 5538
	Coláiste An Phiarsaigh	1400, 2400, 4402
	Coláiste an Spioraid Naoimh	2524, 5512, 5524
	Coláiste Choilm	1203, 1501, 1609, 2204, 2530, 2542, 2554, 1534, 3524, 4526, 5200, 5202, 5506, 5508
	Coláiste Daibhéid	1407, 2544
	Coláiste Éamann Rís	2112
	Coláiste Fionnchua	3301
Cork	Coláiste Muire Crosshaven	1104, 1218, 3307, 5217, 5316, 3526
	Coláiste Pobail Bheanntaí	3600
	Coláiste Pobail Naomh Mhuire	1528, 5534
	Coláiste Treasa	2111, 2538, 2540, 2545, 2549, 2565, 5211
	Davis College	1550, 4406, 4605
	De La Salle College	3532
	Gaelcholáiste Charraig Uí Leighin	4209
	Gaelcholáiste Mhuire	5601
	Glanmire Community College	2214
	Kinsale Community School	1221, 1403, 1405, 1416, 2606, 4100, 4304, 5301, 2610
Loreto Secondary School	1515, 2513, 5203	
Midleton College	2313, 5604	
Millstreet Community School	1508, 2114, 5518	
Mount Mercy College	5212	



School name/County

Mount St Michael	1527, 3534, 4525, 5210, 5527 5532, 5533, 5605, 5606
Pobalscoil na Tríonóide	2103
Presentation Secondary School Ballyphehane	2220
Regina Mundi College	2543, 5501
Schull Community College	3528
Scoil Mhuire gan Smal	1213, 2301, 3519
Skibbereen Community School	1523, 2533, 5523
St Aloysius School	3407, 4504
St Colman's Community College	1606, 5206
St Mary's High School	2510, 2541, 5502
St Mary's Secondary School Macroom	1537, 2105 2106, 2107, 2200, 2206, 2501 2504, 2505, 2506, 2531 2532, 5303, 5600
St Mary's Secondary School Mallow	1603, 3515 3607, 4404, 5406
St Peter's Community School	1510, 3210
St Vincent's Secondary School	1519
St. Brogan's College, Bandon	1518, 2600, 4107 4307
Ursuline College Blackrock	2110, 2216, 2559 3529, 5537

Derry-Londonderry

St Cecilia's College	1401
St Mary's College	1306, 3309, 3311, 3517, 3609

Donegal

Abbey Vocational School	1207, 2402, 4202, 5405
Coláiste Ailigh	5404, 5408, 5513
Loreto Community School	1544, 2564, 5317 1545, 1553, 5543
Loreto Secondary School	2300
Pobalscoil Ghaath Dobhair	1517, 2406, 3102, 3516
Rosses Community School	1533
St Columbas College	1526
St Columba's Comprehensive School	5302

Down

St Colman's College	3522
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Dublin

Adamstown Community College	5305
Ballinteer Community School	2557
Blackrock College	3207, 4500
Castleknock College	4204, 5102
Christian Brothers, Synge St.	3500
Coláiste Chillaín	2552
Coláiste Íosagáin	2547
Coláiste Phádraig CBS	1410, 1414, 3400, 3402 3406, 4216, 4302, 4400
De La Salle College	2100
Dominican College Drumcondra	3204
Firhouse Educate Together Secondary School	4513
Gonzaga College	4203, 5300, 4528
Holy Faith Secondary School	1525
Kishoge Community College	1601
Le Chéile Secondary School	4521
Loreto College Foxrock	3208, 4106
Loreto College Swords	3512, 5208
Loreto College The Green	2408, 3513, 4517
Loreto High School	2561, 2537, 4211
Loreto Secondary School Balbriggan	2226, 5104
Malahide Community School	1209
Marian College	2305
Mount Anville Secondary School	1219
Mount Sackville Secondary School	1205
Our Ladys School	2526, 4506
Sandford Park School	3520
Santa Sabina Dominican College	1530, 2563
St Andrews College	3408, 3310, 4215, 4518, 5312
St Conleths College	1413
St Josephs College	1521
St Joseph's Secondary School Rush	1222, 2224 2225, 2315, 2568, 3212, 3213 3305, 3403, 3533, 4213, 4306, 4519, 5218
St Kilian's Deutsche Schule	2222, 3206
St Marys College	4214
St Mary's Holy Faith Glasnevin Secondary School	2211

2025 Project Quick Search

School name/County

Stratford College	4508, 5500
Sutton Park School	2306, 5542
Tallaght Community School	2603
The Institute of Education	3302, 4308, 4607, 5213

Galway

Coláiste Ghobnait	5221
Coláiste Iognáid S.J.	2221, 4217
Coláiste Mhuire	1540, 2227, 2535
Coláiste Muire Máthair	1215, 1605, 2401, 2609
Coláiste Naomh Eoin	3409
Coláiste Sheosaimh	4527
Dunmore Community School	1409
Glenamaddy Community School	1300
Presentation College Headford	1504, 2101, 3200 3202, 3527, 4608
Seamount College	5401

Kerry

CBS The Green	1531, 4603
Gaelcholáiste Chiarraí	5313
Mercy Secondary School Mounthawk	1202, 1522 1543, 2213, 2219, 2311 3306, 3523, 3530, 3608, 5306
Pobalscoil Inbhear Scéine	1520, 2608, 3605, 4201
Presentation Secondary School Listowel	1505 3603, 5214
Presentation Secondary School Milltown	2562
Presentation Secondary School Tralee	1608, 2223

Kildare

Celbridge Community School	4208
Clongowes Wood College	3103
Coláiste Lorcaín	2502
Coláiste Naomh Mhuire	1549
Gaelcholáiste Mhaigh Nuad	3201, 3518, 4200 4524
Newbridge College	1406, 2405
St Pauls Secondary School	1610

Kilkenny

Castlecomer Community School	1502, 5503
City Vocational School	1535, 2523, 3505

Coláiste Pobail Osraí	4405
Kilkenny College	4507
Loreto Secondary School	2507, 5602
Meánscoil na mBráithre Críostaí	2503, 2508 2509, 2520, 2525
St Kieran's College	1511, 1512

Laois

Heywood Community School	2218
Portlaoise College	2212
St. Mary's C.B.S.	4301

Leitrim

Ballinamore Community School	5531
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Limerick

Ardcoil Ris	3510, 3511
Castletroy College	3602
Coláiste Chiaráin	2104, 3101, 3205, 3507, 3601 4207, 4309, 4509, 4529
Coláiste Iósaef	1223
Coláiste Nano Nagle	4219, 4600
Desmond College	1100, 1500, 1600, 3300
Glenstal Abbey School	3308
Laurel Hill Secondary School FCJ	1546
Mungret Community College	4606, 5314
Salesian Secondary College	1206
Scoil Pól	4522, 5528

Longford

Lanesboro Community College	4300
St. Mel's College	5608

Louth

Bush Post Primary School	5201
De La Salle College	2527
Dundalk Grammar School	2539, 3304
St Mary's Diocesan School	5400, 3521

Mayo

Ballinrobe Community School	5607
Mount St Michael	1200, 1208, 1211, 1212 1301, 1514, 5307, 1415
St. Patrick's College	4303



School name/County

Meath

Ashbourne Community School	4501
Boyne Community School	2201, 2500
Coláiste na Mí	2528, 3509
Eureka Secondary School	1542, 2529, 1539
Loreto Secondary School	4102
St Patrick's Classical School	4108, 4311
St. Joseph's Secondary School, Navan	2514, 4514 5504, 5516

Monaghan

Ballybay Community College	2310
Castleblayney College	5403, 5520
Home school	1214
Inver College	2555, 4520
Our Lady's Secondary School	2309
Patrician High School	4314

Offaly

Gallen Community School	1524
St. Brendan's Community School	5525
Tullamore College	1220, 2207, 5308, 5515, 5530

Roscommon

Coláiste Chiaráin	1101, 1513
Elphin Community College	5410
Roscommon Community College	1216, 2512, 2546 2548, 2605
Scoil Mhuire	1303, 2407, 4212, 5409
Scoil Muire gan Smal	2553

Sligo

Jesus & Mary Secondary School	3531
Sligo Grammar School	2210
Ursuline College	3303, 3504, 4312, 4502

Tipperary

Árdscoil na mBráithre	5310
Borrisokane Community College	1509, 2516, 2518 2517, 4503, 5509
C.B.S. Thurles	5204
Cashel Community School	2601, 2602
Cistercian College Roscrea	5511, 4305, 2534

Coláiste Mhuire Co-Ed	1532
Presentation Secondary School Thurles	1547
St Josephs College	4511, 4516, 5521, 5522, 5526
St. Anne's Secondary School	3525, 2113, 4205
Ursuline Secondary School	5535, 1529, 2215

Tyrone

St Ciaran's College	2404
St Patrick's College	1412, 1417

Waterford

Blackwater Community School	2217
Dungarvan CBS	3211

Westmeath

Athlone Community College	1536, 2316, 3214 3506, 4105, 4510
Coláiste Mhuire	1103, 1408, 1507, 1607, 2303 2519, 2551, 2604, 2607, 4609
Loreto College	4210
Marist College	3501
Meán Scoil an Chlochair	2550, 5215
Moate Community School	1552, 3401, 4104, 1538 4512, 5100, 5517, 5519
Our Lady's Bower	2307, 2308, 2521, 2522 3404, 3514, 4505, 5603
St Finian's College	1516, 1602
Wilson's Hospital School	3503, 5510

Wexford

Coláiste Abbáin	5315
Meanscoil Gharman	5529
Ramsgrange Community School	2556

Wicklow

Gaelcholáiste na Mara	5539
Glenart College	2558
Greystones Community College	2567, 3508 3604, 4103
St David's Holy Faith Secondary	1302, 1304, 1541 3203, 4313, 5101, 5304
St Marys College Arklow	1210, 2208, 2209 4206, 5309
Woodbrook College	5207

Health & Wellbeing

JUNIOR INDIVIDUAL

1100

Title: Facial Rehabilitation: A technological approach for Bell's Palsy patients

Overview: To investigate the effectiveness of a technological solution in aiding the rehabilitation of facial muscles in individuals diagnosed with Bell's Palsy.

School: Desmond College

County: Limerick

Teacher: Donal Enright

Student(s): Nell McMahon

1101

Title: Grip Strength: A good biomarker

Overview: Can grip strength be used to assess not only strength but also health and how well one is aging; is it the ultimate biomarker?

School: Coláiste Chiaráin

County: Roscommon

Teacher: Patricia Buckley

Student(s): Athénais Selve

1102

Title: Extracurricular Activities in Post-Primary Education: Fun or Forced?

Overview: I aim to assess the motivations behind extracurricular activities, and whether they serve as an outlet for school or an additional burden on secondary students.

School: Christian Brothers College

County: Cork

Teacher: Vicki Hennessy

Student(s): Cillian Ó Riordáin

1103

Title: Radon Awareness via Smartphone App

Overview: My project is about radon in the area and awareness people have around it.

School: Coláiste Mhuire

County: Westmeath

Teacher: Eva Acton

Student(s): Ross Maxwell

1104

Title: An investigation into the effects of physical activity and service dog interaction on nursing home patient's health.

Overview: This project aims to investigate the amount of animal therapy and physical activities necessary to improve the physical and mental health of nursing home residents.

School: Coláiste Muire Crosshaven

County: Cork

Teacher: Matilda Miniussi

Student(s): Anabella Joseph

INTERMEDIATE INDIVIDUAL

1200

Title: Diawise: Empowering Educators. A technological solution for teacher training in the management of student diabetes

Overview: This project highlights the lack of teacher training on diabetes management in the educational setting while offering support through my app Diawise.

School: Mount St Michael

County: Mayo

Teacher: Stephanie Hogan

Student(s): Abigail Killeen

1201

Title: An investigation into undiagnosed visual stress in Irish students and the development of a preliminary diagnostic test

Overview: Visual stress is not currently screened for in Irish schools, resulting in undiagnosed people suffering. I will verify the need for testing in schools.

School: Clonakilty Community College

County: Cork

Teacher: Patrick O'Keeffe

Student(s): Oisín Harry Towers

1202

Title: NeuroVision: An AI-based Tool for Glioblastoma Genetic Analysis and Personalised Treatment

Overview: I am developing a personalised AI tool that analyses MRI scans of glioblastoma to predict genetic mutations, leading to less invasive and tailored treatment strategies.

School: Mercy Secondary School Mounthawk

County: Kerry

Teacher: Fiona O'Connor

Student(s): Aoibheann Daly

1203

Title: An Investigation into Different Forms of Gambling and Social Perception in Youth

Overview: A study into how young minds perceive gambling and how they gamble in daily life unknowingly.

School: Coláiste Choilm

County: Cork

Teacher: Rachel Burke

Student(s): Beth Schmidt

1204

Title: Development of a Gamified First Aid Education and Emergency Response Simulation App for Young Children

Overview: I developed a gamified app teaching young children first aid through interactive games and emergency call simulations, aiming to enhance their safety skills.

School: Christ King Girls' Secondary School

County: Cork

Teacher: Vicky Bouché

Student(s): Nina Massalve

1205

Title: An investigation into feminine hygiene products – are they hygienic, or even safe?

Overview: This project investigates the most popular menstrual sanitary products and the potential consequences to our health. It will also explore alternative options to menstrual care.

School: Mount Sackville Secondary School

County: Dublin

Teacher: Megan Byrne

Student(s): Aaliyah Iris Heeze

1206

Title: The Detection and Dangers of Microplastics

Overview: This project outlines the health risks of ingesting microplastics and designs a method to detect their presence in water without the need for a microscope.

School: Salesian Secondary College

County: Limerick

Teacher: Lisa Downey

Student(s): Dara Cronin

1207

Title: Menopause? How much do you know?

Overview: The aim of my project is to survey peoples' understanding of menopause and to find out why there is such limited knowledge and awareness.

School: Abbey Vocational School

County: Donegal

Teacher: Donna Furey

Student(s): Isla Buchanan

1208

Title: EyeFocus: An evidence-based study on the development and effectiveness of a mobile app for Myopia prevention and eye health enhancements.

Overview: My project investigates the development and effectiveness of "EyeFocus," a mobile app to treat myopia and enhance eye health through evidence-based interventions and user engagement.

School: Mount St Michael

County: Mayo

Teacher: Stephanie Hogan

Student(s): Katie Kirrane

1209

Title: The best treatment for Pectus Excavatum sucks, but that's a good thing.

Overview: Assessing GP's knowledge of Pectus Excavatum and Vacuum Bell Therapy, alongside tracking effectiveness of Vacuum Bell Therapy in a 14 year-old patient.

School: Malahide Community School

County: Dublin

Teacher: Emma Paredes

Student(s): Nicholas Connolly

1210

Title: Breaking The Cycle: Evaluating the investment in non-addictive alternatives to current medications.

Overview: A statistical investigation of the silent health crisis caused by drugs such as opioids, stimulants and benzodiazepines.

School: St Marys College Arklow

County: Wicklow

Teacher: Joanne English

Student(s): Erin Mills

1211

Title: Secure Hands: Enhancing the efficiency in emergency communication through Irish Sign Language in Ireland through the integration of Machine Learning in a mobile app.

Overview: This project develops a mobile app using machine learning to enhance proficiency in communication with Irish Sign Language users to support Ireland's emergency responders.

School: Mount St Michael

County: Mayo

Teacher: Stephanie Hogan

Student(s): Dana Carney

1212

Title: Castaway

Overview: My project is a newly designed way for people in the recovery process of an injured bone to have a more efficient, comfortable healing journey.

School: Mount St Michael

County: Mayo

Teacher: Stephanie Hogan

Student(s): Abi Gaughan

1213

Title: Wii Calm: Reducing Rage In Gaming

Overview: This project aims to investigate how to reduce feelings of frustration or rage while playing video games.

School: Scoil Mhuire gan Smal

County: Cork

Teacher: Colm Kiely

Student(s): Conor Walsh

1214

Title: Understanding Alzheimer's and Dementia

Overview: Researching Alzheimer's and Dementia and creating a pamphlet for young children and teenagers to help them understand the issue better

School: Home school
County: Monaghan
Teacher: Sinead Holland
Student(s): Danielle Holland

1215

Title: A Ukrainian Perspective: Using a modified PERMA-Profiler test to gauge how content Ukrainian students are in schools in Ireland

Overview: This project uses a modified PERMA profiling method to gauge the health and wellbeing of Ukrainian students in Irish schools

School: Coláiste Muire Máthair
County: Galway
Teacher: Anthony Carey
Student(s): Yehor Popkov

1216

Title: Horsemanship and the effects on your mental health

Overview: I will research the effects of engaging with horses regularly on a person's mental health compared to people who are not in contact with horses.

School: Roscommon Community College
County: Roscommon
Teacher: Elizabeth Glancy
Student(s): Layla Mulvany Madden

1218

Title: The Hidden Dangers of Preservatives in Energy Drinks. An investigation into artificial food preservatives in energy drinks targeted towards young people

Overview: This project will investigate artificial food preservatives and additives present in many common energy drinks by chemically analysing Sorbic acid, Sucralose and Aspartame.

School: Coláiste Muire Crosshaven
County: Cork
Teacher: Bridget Lehane
Student(s): Cian Riordan

1219

Title: Befriending the nervous system to support students to regulate their emotions.

Overview: The purpose of the project is educate students on how to befriend their nervous system (through the lens of polyvagal theory) to support their emotions.

School: Mount Anville Secondary School
County: Dublin
Teacher: Niall McGrath
Student(s): Leah McNulty

1220

Title: Perimenopause Uncovered: Empowering women through knowledge.

Overview: This project seeks to close the gap between women's lived experiences of perimenopause and societies limited understanding. It aims to help people get a better understanding

School: Tullamore College
County: Offaly
Teacher: Ava Dunne
Student(s): Emily Mcdarby

1221

Title: Food is Fuel: An investigation into the impact that hunger has on performance, behaviour and productivity in school.

Overview: My project aims to study the impact of being hungry at school on students' concentration and productivity.
School: Kinsale Community School
County: Cork
Teacher: Ellen McCarthy
Student(s): Gráinne Crowley

1222

Title: Mastering Movement: A Study of FMS in First Year Students

Overview: This project evaluates the impact of an intervention on 1st years' fundamental movement skills. The intervention focuses on improving running, throwing, catching, and kicking skills.

School: St Joseph's Secondary School Rush
County: Dublin
Teacher: Chloe Ryan
Student(s): Louie Masterson

1223

Title: Connected By Blood: A Continued Study

Overview: A continued expanded study to gather more evidence to provide recommendations to people with blood disorders.

School: Coláiste Iósaef
County: Limerick
Teacher: Brian Clarke
Student(s): Zeina Mohammed

SENIOR INDIVIDUAL

1300

Title: Own your cycle, own your game

Overview: An investigation into the negative stigma around females speaking out about their periods and the effects their menstrual cycle has on their athletic performance.

School: Glenamaddy Community School
County: Galway
Teacher: Aoife Collins
Student(s): Michaela Gillooly

1301

Title: Waste Not, Want Not: A comprehensive investigation into the usability of sterile medical supplies post expiry, and potential to reduce waste in Healthcare.

Overview: Exploring sustainability within medical environments, focusing on excess waste generated through sterile practices, and the potential redundancy of expiration dates on medical products.

School: Mount St Michael
County: Mayo
Teacher: Stephanie Hogan
Student(s): Mary Lilibeth Curry Glynn

1302

Title: Better sleep and brighter moods in teens: Is Vitamin D the solution?

Overview: My project aims to investigate the impact of Vitamin D in mood and sleep quality in adolescence.

School: St David's Holy Faith Secondary
County: Wicklow
Teacher: Garry Lynch
Student(s): Ashley Cahatal

1303

Title: Analysing the relationship between first-year students perceived stress and social connectedness: a mixed method approach

Overview: My project is a mixed method longitudinal study investigating the impact of first-year students' social connectedness on their perceived stress across the academic year.

School: Scoil Mhuire
County: Roscommon
Teacher: Mairead Glynn
Student(s): Victoria Geraghty

1304

Title: 'I still haven't found what I'm looking for' - Evaluating the attitudes of teenagers towards Youth Mental Health Services in my local area.

Overview: I am going to analyse teenagers awareness and engagement with youth mental health services in my local area by conducting a comprehensive survey.

School: St David's Holy Faith Secondary
County: Wicklow
Teacher: Garry Lynch
Student(s): Kate Macadam

1305

Title: Speaking Gently, Suffering Silently: The long-term impact of emotional suppression due

to harmful linguistics on mental wellbeing.

Overview: Analysing the effects of exposure to negative linguistics on individuals' emotional processing and expression abilities and the subsequent impact on emotional suppression and mental health
School: St Dominic's High School
County: Antrim
Teacher: Jamie Mulholland
Student(s): Ava McGurk

1306

Title: Wound dressing to indicate infection

Overview: This project is investigating indicators that can be incorporated into wound dressings and can indicate infection at an early stage.

School: St Mary's College
County: Derry-Londonderry
Teacher: Ann Blanking MBE
Student(s): Becca Connolly

1307

Title: Investigation into the Possible Improvement of Student and Teacher Wellbeing within the Irish Education System

Overview: An investigation into student and teacher wellbeing and looking at stress levels in students and teachers with a focus on the management of this stress

School: Mary Immaculate Secondary School
County: Clare
Teacher: Molly Crilly
Student(s): Grace McNamara

JUNIOR GROUP

1400

Title: An bhfuil Ozempic sláintiúil? Is Ozempic healthy

Overview: Beimid ag fiosrú an bhfuil an druga branda nua Ozempic ina bhealach sláintiúil méachan a chailleadh. Beimid ag lorg roghanna eile níos fearr freisin. We will be investigating if the brand new drug Ozempic is a healthy way to lose weight. We will also be looking for better alternatives.

School: Coláiste An Phiarasaigh
County: Cork

Teacher: Caoimhín Ó Buachalla
Student(s): Lily Ní Bhrosnacháin, Suzie Ni Loingsigh

1401

Title: Investigating link between problematic smartphone use and poor mental health in young people

Overview: We want to investigate the relationship between overall well-being indicators and problematic phone use

School: St Cecilia's College
County: Derry-Londonderry
Teacher: Kerry Conaghan

Health & Wellbeing

Student(s): Ava McGill, Daisy Collins, Caitlin Doherty

1402

Title: The gradual decline of hearing with age

Overview: We will conduct a comprehensive study to examine how knowledge of hearing, hearing loss, and frequency perception varies by age and gender.

School: St Mary's Academy CBS

County: Carlow

Teacher: Tracey Mason

Student(s): TJ Keating, Craig Power, Evan Glynn

1403

Title: Wound Protection Cage 2.0

Overview: A wound protection cage that helps heal and protect wounds while letting air circulate on different parts of the body and for animals.

School: Kinsale Community School

County: Cork

Teacher: Shaun Holly

Student(s): Etaoin Healy Bastow, Eva Grace

1405

Title: Ultra processed food and the effect it has on us.

Overview: Our aim is to study the impact Ultra Processed Food (UPF) has on our health. We'll undertake a survey and complete an experiment on UPF.

School: Kinsale Community School

County: Cork

Teacher: Aisling Hennebry

Student(s): Riva O'Reilly, Sadhbh Touhy

1406

Title: A study of how social media affects the daily lives of teenagers and young adults in our society today.

Overview: Raising awareness of the effects of social media on the wellbeing of teenagers and young adults.

School: Newbridge College

County: Kildare

Teacher: Anne Marie Davis

Student(s): Annemarie Treacy, Maisie Murray, Ciara Daniels

1407

Title: Is fear an tsláinte ná an táinte: An bhfuil ionaid phobail ag cabhrú?

'Health is better than wealth' - Are community centres helping?

Overview: An bhfuil tionchar ag ionaid phobail áitiúla ar shláinte na bpobail ar a bhfreastlaíonn siad? Do community centres have an impact on the health of the community they serve?

School: Coláiste Daibhéid

County: Cork

Teacher: Amy Ní Laoire

Student(s): Cormac O Tuama, Donnchadh O Donnabháin

1408

Title: DiaCare: Revolutionising Diabetes Management

Overview: Our project is an app with a toolkit for teen diabetics to help them cope with living with diabetes

School: Coláiste Mhuire,

County: Westmeath

Teacher: Eva Acton

Student(s): Donnacha Doyle, Dylan Hanly

1409

Title: Brain in Motion: The effect of movement breaks on academic performance.

Overview: This project examines the impact of movement breaks during lessons on students' academic performance, concentration, and memory compared to continuous study without breaks.

School: Dunmore Community School

County: Galway

Teacher: Elaine McGinty

Student(s): Abbie Flatley, Saoirse Callanan

1410

Title: From Chaos to Calm: The role of Creative Mindfulness in managing teen anxiety.

Overview: This project investigates the effectiveness of creative mindfulness practices and playful breathing techniques, in reducing teen anxiety, and promoting positive mental health and wellbeing.

School: Coláiste Phádraig CBS

County: Dublin

Teacher: Jacqueline Farrell

Student(s): Seán Finn Hennessy, Thomas Fleming

1411

Title: How Healthy Bars Affect Blood Sugar Levels

Overview: We aim to investigate the hidden cost to our health & pocket of everyday consumer goods by the general person.

School: Boherbue Comprehensive School

County: Cork

Teacher: Gillian Casey

Student(s): Chantel O'Doherty, Katie Creedon, Juliette Kelleher

1412

Title: Canines or Lego: Which relaxes teenagers more?

Overview: An investigation into whether lego therapy, pet therapy or meditation is most effective in reducing stress in teenagers.

School: St Patrick's College

County: Tyrone

Teacher: Cara Mc Ginn

Student(s): Sean Loughran, Darragh McCann, Jacob White

1413

Title: Seas the Day

Overview: Our project aims to examine some of the health benefits that are gained when time is spent in or around the sea.

School: St Conleths College

County: Dublin

Teacher: Seamus Callaghan

Student(s): Elsie O'Connell, Shanael Rebin

1414

Title: Using creative methodologies to explore the impact of self-compassion on the wellbeing of teenagers.

Overview: Our project aims to assess how engaging teenagers in creative and experiential self-compassion practices using art, craft and creativity, can enhance their emotional wellbeing.

School: Coláiste Phádraig CBS

County: Dublin

Teacher: Jacqueline Farrell

Student(s): Anish Kodishala, Dan Coseru, Filopateer Shenouda

1415

Title: Sign Tales: Evaluating Current Practices in Sign Language Instruction and Developing Innovative Support Tools for Families.

Overview: Sign Tales investigates current sign language education practices, aiming to develop innovative support tools that empower families and teachers in teaching Irish Sign Language.

School: Mount St Michael

County: Mayo

Teacher: Stephanie Hogan

Student(s): Alicia Ward, Aoibhinn Jennings, Mary Joesphine Ward

1416

Title: SCAT Success or SCAT Scam

Overview: This project investigates the reliability of the SCAT 5 concussion test by testing 300 healthy participants to assess its accuracy and potential false positives.

School: Kinsale Community School

County: Cork

Teacher: Shaun Holly

Student(s): John Murphy, Rian O'Neill, Archie O'Callaghan

1417

Title: Venturi Shield

Overview: To create a device that increases the volume and concentration of oxygen within the body whilst playing sport.

School: St Patrick's College

County: Tyrone

Teacher: David Quinn

Student(s): Niall Hackett, Jake Donaghy, Danil Krunglevicius

INTERMEDIATE GROUP

1500

Title: Chill "N" Heal Bandage

Overview: Bandage with hydrogels impregnated with antibiotics that can be cooled/heated to more effectively heal wounds, capable of cooling to help soothe wound, and reduce swelling.

School: Desmond College

County: Limerick

Teacher: Donal Enright

Student(s): Kinga Tobianska, Paulina Varuyeva

1501

Title: A comparative analysis on the experience of bullying and social media use in co-ed schools vs single sex schools.

Overview: A statistical analysis of how bullying manifests in all boy and all girl schools vs mixed schools.

School: Coláiste Choilm

County: Cork

Teacher: Paudie Scanlon

Student(s): Aoibhe Kearney, Ruth Keating, Fiona Kelleher

1502

Title: Menstrual vs Mental Health

Overview: Our project aims to study the effects of the menstrual cycle on girls' mental health and school performance.

School: Castlecomer Community School

County: Kilkenny

Teacher: Fiona Morrissey

Student(s): Clodagh Comerford, Ava Murphy

1503

Title: Imscrúdú ar na Buntáistí a Bhaineann le Tumadh Uisce Fuair. Investigation into the Health Benefits of Cold-Water Immersion.

Overview: Imscrúdú ar an tionchar atá ag uisce fuair ar shláinte fhisiceolaíoch agus shíceolaíoch. Investigation into the effects of Cold Water Immersion on physiological and psychological wellbeing.

School: Clonakilty Community College

County: Cork

Teacher: Patrick O'Keeffe

Student(s): Andrew McCarthy, Éanna Déiseach, Flor McCarthy

1504

Title: Sticky Stethoscope

Overview: We are going to create a stethoscope that sticks to the

patient to provide continuous monitoring in ICU settings.

School: Presentation College Headford

County: Galway

Teacher: John Toner

Student(s): Gagana Kumar, Sarah Reilly

1505

Title: Acne In Teenagers

Overview: We will be investigating the mental and physical effects of acne on the teenage body and the most effective ways of treating it.

School: Presentation Secondary School Listowel

County: Kerry

Teacher: Jessica Keane

Student(s): Caoimhe Barry, Medb Culhane, Kate Nolan

1506

Title: Orthostatic testing to see recovery in different sports and training volumes

Overview: Using the difference in resting and standing heart rate (also known as orthostatic testing) to see how well athletes from different sports recover.

School: Ballincollig Community School

County: Cork

Teacher: David O'Brien

Student(s): Roisín O'Donovan, Lily O'Sullivan

1507

Title: GAA Grind: Stress Under The Surface

Overview: We aim to examine GAA training schedules and the stress they place on young athletes, comparing these factors to other professional sports.

School: Coláiste Mhuire,

County: Westmeath

Teacher: Eva Acton

Student(s): Daire Fagan, Alex Markey Archbold, Conor Seoige

1508

Title: A statistical analysis of how frequent ligament injuries have become in recent years in males versus females.

Overview: Our project is about how frequent different types of collateral ligaments have become in recent years.

School: Millstreet Community School

County: Cork

Teacher: Eileen Lyons

Student(s): Kate Lynch, Evelyn Smyth

1509

Title: Young carers: Minding your mental health

Overview: We are doing a statistical study into how young

carers' mental health is affected by looking after the elderly or someone with a disability.

School: Borrisokane Community College

County: Tipperary

Teacher: Rachel Ahern

Student(s): Lucy Burke, Deirdre Costello, Clodagh Shinnors

1510

Title: Are coaches' prior beliefs of gender associated with a basketball player's progression in a six-week trial

Overview: This study aims to show the progression of basketball players in a six week trial and test their coaches prior beliefs of gender.

School: St Peter's Community School

County: Cork

Teacher: Daniel Hurley

Student(s): Madison Spriggs, Francesca Kyamagero

1511

Title: Are we actually eating healthy while eating "healthy school lunches"?

Overview: An evaluation of the nutritional value of food consumed by first-year students versus sixth-year students.

School: St Kieran's College

County: Kilkenny

Teacher: David Hennessy

Student(s): Ruairi Hanrahan, Jack O'Reilly

1512

Title: The effects of energy drinks on sleep patterns

Overview: We will see how drinking energy drinks affects sleep patterns.

School: St Kieran's College

County: Kilkenny

Teacher: David Hennessy

Student(s): Anan Jalali, Alex O'Donoghue

1513

Title: Gumshields: Fit or miss?

Overview: An investigation into whether a fitted gumshield is worth the money by it being more effective at protecting your teeth than a cheaper regular one

School: Coláiste Chiaráin

County: Roscommon

Teacher: Fiona Corry

Student(s): Grace Meares, Saoirse Nolan

1514

Title: Evolve Era: An interactive AI-Powered Symptom Tracking and Diagnostic Support: A Technological Solution to Modern Healthcare Challenges

Overview: It is an AI-powered app for tracking symptoms and aiding diagnosis, utilizing machine learning model detection within a comprehensive study of healthcare challenges and solutions.

School: Mount St Michael

County: Mayo

Teacher: Stephanie Hogan

Student(s): Simona Gaubyte, Ema Sasnauskaite, Huria Sadiq

1515

Title: The effects of epilepsy on a person's mind

Overview: We hope to find the reasoning behind people not contributing to their recovery and to possibly help them get motivated to recover.

School: Loreto Secondary School

County: Cork

Teacher: Ciara Motherway

Student(s): Kaleigh Twomey, Amelia Sampaya

1516

Title: 'Plastic not so fantastic' -Sustainability in Diabetes Management

Overview: We plan to investigate the impact single-use plastics used in diabetes management has on the environment and propose solutions to reduce its impact.

School: St Finian's College

County: Westmeath

Teacher: Martina Roache

Student(s): Hazel O'Grady, John Tully, Grace McCann

1517

Title: Tick Tok - An tionchar atá ag teicneolaíocht ar mheabharshláinte. Tick tock: the mental health effects of technology

Overview: Tá sé mar aidhm ag ár dtionscadal na hiarmhairtí diúltacha meabhairshláinte a d'fhéadfadh a bheith ag an gcuntar céime a fhiosrú. Our project aims to investigate the potential negative mental health consequences of the degree counter.

School: Pobalscoil Ghaath Dobhair

County: Donegal

Teacher: Shauna Mc Ginley

Student(s): Hollie Ní Choille, Róisín ní Dhochartaigh

1518

Title: Addicted? An investigation into the positive and negative impacts of removing student access to their phones using Yondr pouches during the school day

Overview: Does banning phones in schools or using Yondr pouches affect students' mental health, exam results, or social lives?

School: St. Brogan's College, Bandon

County: Cork

Teacher: Sara Hurley

Student(s): Jakub Kalitka, Michael Foley

1519

Title: Inclusivity

Overview: Developing an app for our community to enhance the wellbeing of teenagers with autism and/or dyspraxia by promoting greater inclusion and awareness

School: St Vincent's Secondary School

County: Cork

Teacher: Sinead Connolly

Student(s): Mia Doyle, Elphie Dawes Collins

1520

Title: Good Criteria for Healthy Gut Bacteria

Overview: An investigation into the effect of specific foods on the microbiome in the gut.

School: Pobalscoil Inbhear Scéine

County: Kerry

Teacher: Sarah Abbott

Student(s): Muireann Rochford, Chloe O Sullivan, Iga Maksym

1521

Title: Banning mobile phones in schools. Is it a good idea?

Overview: To explore the rationale behind banning mobile phones in schools, the effects of this policy, and potential innovative solutions to manage mobile phone usage.

School: St Josephs College

County: Dublin

Teacher: Diane Cannon

Student(s): Malak Ahmed, Sara Resetnic, Alheena Bibi Budureea

1522

Title: Coping through Chaos: A longitudinal study of the stress and anxiety levels of teenagers and the effectiveness of stress and anxiety coping strategies

Overview: A longitudinal study of teenagers' stress & anxiety, comparing the most well-known effective strategies with those used by post-primary students.

School: Mercy Secondary School Mounthawk

County: Kerry

Teacher: Roisin Riordan

Student(s): Roanna Lawless O'Sullivan, Áine Newsome

1523

Title: Demystifying the myth of using heat creams

Overview: An investigation into the placebo effects of various muscle/heat cream

School: Skibbereen Community School

County: Cork

Teacher: Liam Shanahan

Health & Wellbeing

Student(s): Niall O'Callaghan, Dan McCarthy

1524

Title: Subcutaneous Semaglutide - The new fashion trend

Overview: We intend to survey the experiences of people who have been prescribed a Semaglutide medication.

School: Gallen Community School

County: Offaly

Teacher: Helen Bowe

Student(s): Grace Fallon, Ava Murray

1525

Title: 2 litres of water every day - ordinary or unnecessary?

Overview: An investigation of the effects of dehydration, specifically on students' performance at school. We will discover how much water is necessary to stay hydrated.

School: Holy Faith Secondary School

County: Dublin

Teacher: Maria O'Sullivan

Student(s): Ana Walsh, Rachel Ardiff, Rosie Cudden

1526

Title: An analysis of makeup/skincare products that claim to contain SPF/UV protection

Overview: To investigate if makeup products that claim to contain SPF actually protect against UV rays/sunlight.

School: St Columbas College

County: Donegal

Teacher: Mairéad Deeney

Student(s): Willow Doherty Falls, Hannah-Rose Sweeney, Katie Toner

1527

Title: Honey Healers - Unveiling the anti-biotic powers of different honeys and incorporating them into making medical bandages

Overview: We are investigating the anti-biotic properties of different honeys. Then we are going to develop honey bandages to help cure ulcers and other bacterial infections.

School: Mount St Michael

County: Cork

Teacher: Alison O' Neill

Student(s): Caoimhe Scully, Niamh Wygers, Miya Sullivan

1528

Title: Is this Pandemic a Forever Type of Thing?

Overview: How has the Covid-19 pandemic affected the social and mental well-being of young people in Ireland?

School: Coláiste Pobail Naomh Mhuire

County: Cork

Teacher: Pat Curtin

Student(s): Kate Crowley, Rachel Burton

1529

Title: "No Environment, No Wellbeing": An intervention to reduce eco-anxiety and increase climate engagement in teenagers.

Overview: The focus of our project is to investigate climate change and the effect it has on our generation, by using our peers.

School: Ursuline Secondary School

County: Tipperary

Teacher: Anne Molony

Student(s): Roise Glynn, Clodagh O Dwyer

1530

Title: Vitamin C retention in vegetables using different cooking methods

Overview: This project investigates vitamin C retention in vegetables across various cooking methods (boiling, oven, air fryer, etc) aiming to identify the most nutrient-preserving cooking method.

School: Santa Sabina Dominican College

County: Dublin

Teacher: Paul Nugent

Student(s): Bridget Hickey-Montoro, Laura Connolly, Éabha Dillon

1531

Title: The Benefits of Sport on Neurodivergent People

Overview: An investigation into the factors in sports that attract neurodivergent people; using surveys of quantitative data and semi structured interviews.

School: CBS The Green

County: Kerry

Teacher: Julianne O'Keeffe

Student(s): Philip Brosnan, Karl Cronin

1532

Title: Behind The Smiles: The Silent Struggle of Teenage Burnout

Overview: Our project comes from both of our experiences with burnout so we've decided to dig deeper into how common it is with other teenagers.

School: Coláiste Mhuire Co-Ed

County: Tipperary

Teacher: Ciara Phelan

Student(s): Cormac Sheehy, Maria Ryan

1533

Title: Flow Fit

Overview: We are investigating how menstruation can affect a woman's performance in all sporting activities.

School: Rosses Community School

County: Donegal

Teacher: Kevin Boyle

Student(s): Méabh Cannon, Xinyi Chen, Grace Andrews

1534

Title: An analysis of people's misconceptions of Dyslexia and to highlight the positive attributes associated with this learning disability

Overview: Gather information about people's understanding of Dyslexia so see where the misconceptions are, and then creating content to help improve this.

School: Coláiste Choilm

County: Cork

Teacher: Karina Lyne

Student(s): Maggie Mollaghan, Erin Sheehan

1535

Title: Investigating how vaping affects the teenage body

Overview: An investigation into how vaping affects the physical health of adolescents

School: City Vocational School

County: Kilkenny

Teacher: John Flood

Student(s): Africa Perez Garcia, Roc Solé Collell, Carlos Torrejón Linage

1536

Title: Breaking the Silence: Unravelling Menstrual Stigmas and Mood Mysteries

Overview: To determine whether women's wellbeing is affected by what point they're at during their menstrual cycle and change the way of teaching while breaking stigmas.

School: Athlone Community College

County: Westmeath

Teacher: Laura Donnellan

Student(s): Aukse Vinciunaite, Leah Maguire, Niamh O'Reilly

1537

Title: An investigation into the effect of education on youth mental health in Ireland: a comprehensive study.

Overview: Our project investigates the impact of education on Irish students' mental health in primary and secondary levels to raise awareness for potential future legislative considerations.

School: St Mary's Secondary School Macroom

County: Cork

Teacher: Michelle Maher

Student(s): Julia Gdaniec, Jamie O Callaghan, Eva MacCarthy

1538

Title: Botanical Barriers: Harnessing plant compounds for UV protection during nail treatments.

Overview: We hope to produce a base coat to be used under cosmetic gel nail treatments to protect the nail bed from UV exposure.

School: Moate Community School

County: Westmeath

Teacher: Irene O'Sullivan

Student(s): Aoibh Larkin, Leah Pillion, Kayla Moran

1539

Title: Neurocognitive olfactory programming.

Overview: Our research will focus on the link between memory and scent and we will apply what we have learned in developing a self-directed therapy.

School: Eureka Secondary School

County: Meath

Teacher: Bernadette O'Dwyer

Student(s): Hanna Lydon, Anna Casserly, Saoirse Ward

1540

Title: Animals and Autism

Overview: Understanding how dogs can help children with autism at home and in school and if it enhances learning.

School: Coláiste Mhuire

County: Galway

Teacher: Conor Delaney

Student(s): Lucy Coyle, Niamh Hoey, Caitlin Kelly

1541

Title: Lactic Threshold: What is the best source of nutrition to reduce the buildup of lactic acid in muscles.

Overview: We are investigating how different food and drink can affect sporting performance and lactic acid levels.

School: St David's Holy Faith Secondary

County: Wicklow

Teacher: Garry Lynch

Student(s): Eoghan Waters, Dylan Rice, Chester Medidas

1542

Title: Shining a light on Stargardt disease

Overview: To provide an information package about Stargardt disease for newly diagnosed patients and a booklet they can give to their teacher explaining the condition.

School: Eureka Secondary School

County: Meath

Teacher: Bernadette O'Dwyer

Student(s): Caoimhe Mynes, Caitlin Mynes

1543

Title: Pineapple Power: Bromelain Balm for Accelerated Burn Recovery
Overview: Our project is an investigation on how the enzyme bromelain and other compounds contained in pineapples, can assist in the accelerated healing of burns.
School: Mercy Secondary School Mounthawk
County: Kerry
Teacher: Fiona O'Connor
Student(s): Cathal Fitzgerald, Donncha Hartnett

1544

Title: A comparative study of swimsuit colour and water type on the visibility of children's swimwear
Overview: Our project is to find out what colours of swimwear are safest for children in swimming pools and oceans.
School: Loreto Community School
County: Donegal
Teacher: Roisin Coyle
Student(s): Ava Connor, Clodagh McGettigan, Hannah Lynch

1545

Title: Microbial Comparison of baby bottle milk: Perfect prep machine vs HSE recommended method
Overview: We will be testing the bacteria in the milk in bottles using a perfect prep machine vs HSE recommended method.
School: Loreto Community School
County: Donegal
Teacher: Roisin Coyle
Student(s): Aoife Sheridan, Roisin Coyle

1546

Title: The Relationship Between Menstrual Health And Injury Rates In Female Athletes
Overview: Our project explores how menstrual health impacts injury rates in female athletes, addressing physical, hormonal, and educational factors to improve awareness and injury prevention strategies.
School: Laurel Hill Secondary School FCJ
County: Limerick
Teacher: Karen Kinnerk
Student(s): Zoe Norris, Hannah Markham, Anna Djro

1547

Title: Lonely in a Connected World: Exploring Loneliness Among Irish Teenagers
Overview: We will investigate whether Irish teenagers experience loneliness, exploring its causes, prevalence, and impact on their well-being.

School: Presentation Secondary School Thurles
County: Tipperary
Teacher: Olivia O'Brien
Student(s): Orlaith Timmons, Dearbhla Horan, Caoimhe Ryan

1548

Title: Balancing the Scales! Perceptions of fairness in Weight Loss: Surveying attitudes toward Ozempic.
Overview: This project surveys opinions on whether using Ozempic for weight loss is viewed as "fair" or "cheating" by those who attempt weight loss through diet
School: Virginia College
County: Cavan
Teacher: Kelly Ryan
Student(s): Erin King, Summer Nolan

1549

Title: Spot-ting Solutions: An investigation into the performance of benzoyl peroxide in killing cutibacterium acnes.
Overview: We will be researching how benzoyl peroxide, a common ingredient in acne prescriptions, attacks and kills cutibacterium acnes, as well as its effects on skin.
School: Coláiste Naomh Mhuire
County: Kildare
Teacher: Jennifer O'Meara
Student(s): Laura Heneghan, Grace Walsh, Lauren Kenny

1550

Title: Let's Get Rolling: Wheelchair Fitbit
Overview: This project is about designing a Fitbit watch suitable for wheelchair users.
School: Davis College
County: Cork
Teacher: Aisling Guiney
Student(s): Rabia Rabu, Kinga Pekala

1551

Title: How menstruation impacts the lives of secondary school females.
Overview: We want to investigate how periods affect the lives of secondary school girls in sport, school attendance, their social lives and more.
School: Ballincollig Community School
County: Cork
Teacher: Michael McCarthy
Student(s): Lucy Matson, Abbie Hyde, Millie Lombard

1552

Title: Is High Performance in Sport out of Reach for Short People?
Overview: This project aims to assess the relationship between

body height and the key motor abilities for high performance in field sports.

School: Moate Community School
County: Westmeath
Teacher: Mairead Cusack
Student(s): Grace Galvin, Sophie Padden

1553

Title: How ultra processed is our school?
Overview: A statistical analysis of ingredients in our school canteen and in our students lunchboxes
School: Loreto Community School
County: Donegal
Teacher: Roisin Coyle
Student(s): Aoibhin Boyle, Muireann Reidy

SENIOR GROUP**1600**

Title: OtoInSight
Overview: OtoInSight converts virtually any smartphone into an otoscope, allowing ear infections to be diagnosed remotely.
School: Desmond College
County: Limerick
Teacher: Donal Enright
Student(s): Aoibhilinn Heath, Caoimhe Greene

1601

Title: Sol-Mate
Overview: A website for raising awareness, and reducing the risk of, skin cancer due to over exposure to the sun.
School: Kishoge Community College
County: Dublin
Teacher: Micheal Griffin
Student(s): Susannah Norton, Nikola Gebaska, Ocean Reffell

1602

Title: Air-lert: How harmful is the air we breathe in?
Overview: To determine the need for and build a device that alerts on real time PM2.5 levels based on EPA Air Quality Health Index (AQHI).
School: St Finian's College
County: Westmeath
Teacher: Martina Roache
Student(s): Noah Callum Hill, Sarah Higgins, Donagh Carey

1603

Title: Boosting Brainpower: An investigation into the effect of 'movement breaks' on student cognition, wellbeing, and academic performance
Overview: The aim of this research is to assess improvements in attention, memory, and problem-solving comparing those who received movement breaks to those

who did not
School: St Mary's Secondary School Mallow
County: Cork
Teacher: Rory Cooté
Student(s): Amy O'Mahony, Berenice Cronin

1604

Title: How our acoustic environment affects our cardiovascular health
Overview: We are investigating if exposure to contrasting sounds e.g. birdsong and traffic noises can bring about different cardiovascular responses.
School: Carrignafay Community College
County: Cork
Teacher: Eibhlin Cleary
Student(s): Amelia Motyka, Emma Hurley, Kendra Casey

1605

Title: Digital Natives, a Yondr Pouch Proposal
Overview: To investigate the impact of using a Yondr pouch to remove phones during the school day on the health and wellbeing of students.
School: Coláiste Muire Máthair
County: Galway
Teacher: Anthony Carey
Student(s): Jasmine Rose Polinar, Adam Cooke, Boyuan Guo

1606

Title: How natural, non-anthropogenic, birdsong and nature sounds impact the wellbeing of a student over a period of time in a social and educational environment
Overview: Our project examines whether if a student is exposed to natural birdsong for any time, their mental and emotional wellbeing improves due to that exposure.
School: St Colman's Community College
County: Cork
Teacher: Proinsias Ó Tuama
Student(s): Stella Josephine Gill, Ava Lutz, Medhansh Prabhakar

1607

Title: Saoirse na Feirme
Overview: Saoirse na Feirme enhances farming safety with timely alerts for harvesting applications and gamifying farm safety, while supporting farmers' mental well-being.
School: Coláiste Mhuire,
County: Westmeath
Teacher: Eva Acton
Student(s): Michael Taggart, Cathal Og Fagan, Billy Dunne

Health & Wellbeing

1608

Title: ACT (Aid Care Treat): App-timising emergency response. A technological aid, featuring a comprehensive repository of medical information - iterative development.

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, Laoise Murphy

1609

Title: Childcare with Mobility Issues: Redesigning and manufacturing a baby carrier for child carers with mobility issues

Overview: A baby carrier designed to aid those with mobility issues in caring for children

School: Coláiste Choilm

County: Cork

Teacher: Karina Lyne

Student(s): Heather Butler, Isabelle Walsh

1610

Title: Air Purifier

Overview: Our project aims to create an air filtration system that's environmentally sustainable and affordable, to improve the standard

of living in poor air quality regions.

School: St Pauls Secondary School

County: Kildare

Teacher: Emily Woods

Student(s): Jack Boughton, Jakub Urbanczyk, Angelo Leonardo

 IRELAND
AT EXPO
2025



Ireland at Expo 2025 is delighted to award a trip to the World Expo in Japan to five outstanding projects at this year's BTYSTE.

World Expos, held once every five years, have a long history of bringing the world together to gaze into the future of industry, technology, and material progress. Expo 2025 will take place in Osaka city in the Kansai region of Japan.

Inspired by Ireland's theme for Expo, 'Creativity Connects People', the prize will take the overall winner of BTYSTE 2025 and one senior project from each of the four remaining categories to Japan in July 2025. At Expo, they will have the opportunity to create meaningful intercultural connections, experience cutting-edge science, and to showcase their research on a global stage.



JUNIOR INDIVIDUAL

2100

Title: DLAI Dyslexia Learning (AI)
Overview: Can Artificial Intelligence assist lower secondary level students who have dyslexia to learn, by utilizing their learning styles?
School: De La Salle College
County: Dublin
Teacher: Aoife Kelly
Student(s): Ryan Foley

2101

Title: Into the Great Unknown- students perspective on their transition to secondary school.
Overview: Getting students' views on their move to secondary school before and after they move from primary school
School: Presentation College Headford
County: Galway
Teacher: John Toner
Student(s): Ryan Mortimer

2102

Title: Project AVAI
Overview: An investigation of how Gen AI will affect artists in the future and how it can be used ethically and sustainably in the creative industry.
School: Christ King Girls' Secondary School
County: Cork
Teacher: Vicky Bouché
Student(s): Emma Freeman

2103

Title: "You Belong With Me" - The Psychology Behind the Taylor Swift Concert Phenomenon: Analysing fan behaviour through social and behaviour theories.
Overview: This project aims to explore the psychological dynamics behind intense fan behaviour observed at Taylor Swift concerts through the lens of reputable psychological theories.
School: Pobalscoil na Tríonóide
County: Cork
Teacher: Edel Charles
Student(s): Katie King

2104

Title: An investigation to understand the reasons behind the falling trends of EV sales in Ireland
Overview: An investigation into why EV sales in Ireland are plummeting.
School: Coláiste Chiaráin
County: Limerick
Teacher: Edel Farrell
Student(s): Tomas O'Sullivan

2105

Title: Assessing Uptake and Impact: A study on the

implementation of free lunch schemes in primary schools across Ireland

Overview: This study aims to evaluate the uptake and impact of free lunch schemes in primary schools across Ireland by assessing participation and long-term benefits.
School: St Mary's Secondary School Macroom
County: Cork
Teacher: Roisin O Keeffe
Student(s): Áine O'Leary

2106

Title: The Social Impact of Ireland's Deposit Return Scheme: Assessing public perception and accessibility across diverse communities.
Overview: This project aims to assess public perception and accessibility across diverse communities.
School: St Mary's Secondary School Macroom
County: Cork
Teacher: Shannen Foley
Student(s): Georgia Froggatt

2107

Title: An investigation into the Irish public's awareness of global warming compared with their willingness to combat it
Overview: An investigation into whether or not the Irish public are willing to help mitigate climate change and global warming.
School: St Mary's Secondary School Macroom
County: Cork
Teacher: Shannen Foley
Student(s): Aoife O'Connor

2108

Title: A statistical analysis and case study on the impact of various STEM promotion events on secondary school students' interest in STEM subjects and careers
Overview: This project examines how role models and STEM promotion events impact secondary school students' interest in STEM subjects and careers, also addressing gender differences.
School: Carrigtwohill Post Primary
County: Cork
Teacher: Mary Kelleher
Student(s): Margo Zaslavska

2109

Title: Is the Deposit Return Scheme working?
Overview: I am investigating the deposit return scheme to assess its success under a number of different criteria.
School: Árdscóil Uí Urmoltaigh
County: Cork
Teacher: Paul Bouchier
Student(s): Aidan Bolger

2110

Title: Olympic Outcomes: A statistical investigation of the impact of the Olympic Games on Irish female adolescents participation rates in Olympic sports
Overview: This project will investigate the impact of the Olympic Games on Irish female adolescents participation in Olympic Sports.
School: Ursuline College Blackrock
County: Cork
Teacher: Sarah Jane Brady
Student(s): Ella Whitney

2111

Title: Mom, can you Revolut me? - An investigation into the advantages and disadvantages of increased financial independence among secondary school students.
Overview: To investigate whether increased financial responsibility at a younger age has a net positive or negative effect on young people's financial literacy and wellbeing.
School: Coláiste Treasa
County: Cork
Teacher: Thomas Healy
Student(s): David Hynes

2112

Title: The Connection Between Humans and Nature
Overview: My project is exploring how humans benefit from being connected to animals and nature. I am seeing if this works in the classroom.
School: Coláiste Éamann Rís
County: Cork
Teacher: Kate Rowe
Student(s): Sara Albert

2113

Title: Are students struggling to come back to school? A study to see if post-Covid apathy or a rise in illness affects students' attendance.
Overview: A study to see if post-Covid illness, apathy or the year students are in affects students' likelihood to attend school.
School: St. Anne's Secondary School
County: Tipperary
Teacher: Isabel Hogan
Student(s): Jane Barlow

2114

Title: Putting the buzz into Millstreet: Building on local initiatives to raise awareness of pollinator conservation in my town
Overview: This project aims to raise awareness of pollinator conservation amongst my peers in town due to concerns about the extinction of Ireland's bees and pollinators.

School: Millstreet Community School
County: Cork
Teacher: Denise Quilter
Student(s): Daniel Bourke

INTERMEDIATE INDIVIDUAL

2200

Title: Eochracha agus droichid: A sociolinguistic investigation into how grammatical gender affects the thought and cognition of English and Irish speakers.
Overview: I aim to examine if and how the use of grammatical gender in the Irish language and genderless nouns in English affect thought and perception.
School: St Mary's Secondary School Macroom
County: Cork
Teacher: Shannen Foley
Student(s): Ellen Murray

2201

Title: The Trial Of Dave
Overview: This project delves into how much effect bias in media can have on people.
School: Boyne Community School
County: Meath
Teacher: Mary Dowd
Student(s): Max Carty

2202

Title: Why the Long Face?
Investigating factors pertaining to the trajectories of young female equestrians into elite equestrian disciplines.
Overview: This project explores gender as a mediating factor for success in elite equestrianism and investigates lower female representation at top levels of particular equestrian disciplines
School: St. Joseph's Secondary School Tulla
County: Clare
Teacher: Lorraine McCarthy
Student(s): Caroline Hamilton

2203

Title: Is Privacy Possible in a Modern World?
Overview: Our life in a surveillance society due to the development of modern technology
School: Christ King Girls' Secondary School
County: Cork
Teacher: Vicky Bouché
Student(s): Jessica Ryan

2204

Title: A comparative study on the mental health symptoms experienced by two generations of the same family
Overview: Investigating how two generations in the same family can have similar responses and

reactions in regard to mental health
School: Coláiste Choilm
County: Cork
Teacher: Paudie Scanlon
Student(s): Irene Santhosh

2205

Title: Mind Over Matter: Investigating the impact that Post-Operative Rehabilitative Care has on the mental health of adolescents with Spinal Fusion
Overview: I will be surveying adolescents who are recovering or have recovered from spinal fusion surgery to evaluate whether post-operative rehabilitative care impacts their mental health.
School: Bandon Grammar School
County: Cork
Teacher: Carena McCarthy
Student(s): Faye Terry

2206

Title: The Silent Struggle: An investigation into Irish women's attitudes towards a HRT Scheme for menopausal symptoms
Overview: My project aims to assess the potential impact of the National HRT scheme and lack of awareness and support of women's health issues in Ireland.
School: St Mary's Secondary School Macroom
County: Cork
Teacher: Michelle Maher
Student(s): Chloe Lehane

2207

Title: Little Steps: Understanding height and growth differences
Overview: Investigating the effect height has on a person's wellbeing.
School: Tullamore College
County: Offaly
Teacher: Noreen Flynn
Student(s): Andrea Mecionyte

2208

Title: Flow Forward: Your one-stop hub to end period poverty!
Overview: My project aims to develop a practical solution to address period poverty, focusing on both increasing awareness and providing actionable steps to aid the issue.
School: St Marys College Arklow
County: Wicklow
Teacher: Joanne English
Student(s): Jadesola Fatus

2209

Title: One Step at a Time: Should we invest in kinetic flooring in Ireland?
Overview: I aim to find out if kinetic flooring is a worthwhile investment when it comes to green electricity and the taxpayers' money in Ireland
School: St Marys College Arklow

County: Wicklow
Teacher: Joanne English
Student(s): Aoife O'Neill

2210

Title: Art, Is it worth it?
Overview: My aim in this project is to explore the relationship between the perceived monetary value of an artwork and people's opinions of art.
School: Sligo Grammar School
County: Sligo
Teacher: Michelle Higgins
Student(s): Michael Concannon

2211

Title: How Digital Literate Are We? An investigation into digital literacy levels in Irish Secondary Schools
Overview: An investigation into adolescents digital literacy knowledge & practice levels. Are we preparing students adequately for the technological world?
School: St Mary's Holy Faith Glasnevin Secondary School
County: Dublin
Teacher: Eilish Coleman
Student(s): Annarose Sijo

2212

Title: A study of the post-Covid work environment
Overview: I am studying three demographics, those that work from home, in office, and hybrid. I will be comparing them on metrics pre vs post-Covid.
School: Portlaoise College
County: Laois
Teacher: Fiona Kelly
Student(s): Seán Cheah

2213

Title: The Role of Self-Determination Theory in Enhancing Intrinsic Motivation Among Transition Year Students
Overview: My project focuses on gathering student opinions to understand how Self-Determination Theory influences their intrinsic motivation during Transition Year.
School: Mercy Secondary School Mounthawk
County: Kerry
Teacher: Eimear Nolan
Student(s): Orla Buttimer

2214

Title: Has 40 years of progressive education in society changed the gender stereotypes in the workplace?
Overview: This project aims to discover whether, after 40 years of progressive education in society, people have changed their views on gender stereotypes in the workplace.
School: Glanmire Community College

County: Cork
Teacher: Megan Murphy
Student(s): Lauren Tobin

2215

Title: Hot off the Press! The Facts about Women's Sports Coverage
Overview: A comparative investigation into the coverage of Women's sport compared to Men's in mainstream media in Ireland.
School: Ursuline Secondary School
County: Tipperary
Teacher: Marian Ryan
Student(s): Grace Eiffe

2216

Title: AI Art? A Statistical Investigation Examining Whether the Irish Population Prefer AI Generated Art or Human Generated Art
Overview: Investigating the perceptions of AI art across many age groups and determining whether such perceptions change with age.
School: Ursuline College Blackrock
County: Cork
Teacher: Sarah Jane Brady
Student(s): Anya Lokugamage

2217

Title: Where is the Truth: The effects of media propaganda on young people
Overview: This is a social investigation into how propaganda in mainstream media affects young people, and how it is manipulating the political landscape of the future.
School: Blackwater Community School
County: Waterford
Teacher: Danielle Murphy
Student(s): Cathal Barry

2218

Title: How does the amount of sleep you get affect your appetite/mood/focus?
Overview: This project will allow us to gain insight into how sleep really affects our day to day lives.
School: Heywood Community School
County: Laois
Teacher: Joyce Byrne
Student(s): Ilana Holohan

2219

Title: Memory Magic: Do Mnemonics Help Improve Memory Retention
Overview: For this project, I am going to investigate whether mnemonics improve memory retention compared to rote learning by conducting a quiz-based experiment with two groups.
School: Mercy Secondary School Mounthawk

County: Kerry
Teacher: Wayne Hayes
Student(s): Molly Brick

2220

Title: AI-Don't Believe It!
Overview: Can different age groups recognise if an image is AI-generated? We investigated age-related cognitive differences, digital literacy, and visual cues used for identification.
School: Presentation Secondary School Ballyphehane
County: Cork
Teacher: Gretta O' Sullivan
Student(s): Amy Kay Donnellan

2221

Title: AI and I: Will artificial intelligence make humans redundant in the tech industry?
Overview: Technology is an important sector in the west of Ireland and a major employer. Will AI be a benefit or a pitfall in the workplace?
School: Coláiste Iognáid S.J.
County: Galway
Teacher: Daniela Donghi
Student(s): James Keady

2222

Title: An Investigation into The Barriers Faced by Individuals with Learning Difficulties in finding Employment
Overview: In this project I will seek out the key issues for individuals with learning difficulties when it comes to finding employment.
School: St Kilian's Deutsche Schule
County: Dublin
Teacher: Fiona Martin
Student(s): Jan Centner

2223

Title: Can reaction times among vulnerable drivers be improved through a specific tailored program?
Overview: How do age and medical issues influence reaction times and affect drivers. Is there a way to improve reaction times in relation to road safety.
School: Presentation Secondary School Tralee
County: Kerry
Teacher: Clodagh Musgrave
Student(s): Sharon Enright

2224

Title: Brain Exchange: An App for Peer-to-Peer Tutoring Through Credit-Based Learning
Overview: The Brain Exchange app enables students to trade academic mentoring credits, sharing strengths in one subject to receive tutoring help in areas they struggle with.

School: St Joseph's Secondary School Rush
County: Dublin
Teacher: Helen Teehan
Student(s): Eilíse Stuart

2225

Title: Investigating Sensory Processing Patterns in Adolescents Aged 12-18

Overview: This project explores how sensory processing patterns affect adolescents' daily lives, focusing on sensory preferences and responses

School: St Joseph's Secondary School Rush
County: Dublin
Teacher: Helen Teehan
Student(s): Billie Rickard

2226

Title: Do we experience magic the same way? How gender, age and state of mindfulness can affect our susceptibility to magic tricks and how well people pay attention.

Overview: Utilising sleight of hand skills and knowledge of misdirection as a magician to study the effects of gender, age and mindfulness on susceptibility to tricks.

School: Loreto Secondary School Balbriggan
County: Dublin
Teacher: Brian Higgins
Student(s): Ella Nicholson

2227

Title: CarbonCut- An intelligent way to reduce your carbon footprint

Overview: CarbonCut is an AI-based app which provides personalised daily reminders on how to become more eco-friendly based on each individual person's circumstances.

School: Coláiste Mhuire
County: Galway
Teacher: Conor Delaney
Student(s): Liam Egan

SENIOR INDIVIDUAL

2300

Title: Fluoride, Friend or Foe?

Overview: A comparison of a GP vs a dentist's opinion of water fluoridation in the Republic of Ireland.

School: Loreto Secondary School
County: Donegal
Teacher: Margaret O Reilly
Student(s): Aislinn Devlin

2301

Title: Short Term Rental Conversion: an Avoidable Catalyst of Home Overvaluation?

Overview: Examines the relationship between short term rentals listings and the

overvaluation of housing (local, national and Europe). Assesses the devastating social impacts of these findings.

School: Scoil Mhuire gan Smal
County: Cork
Teacher: Edel Healy
Student(s): James Dunne

2303

Title: A statistical analysis of the perpetuation of education disadvantage in early school leavers and implicit bias among Irish employers.

Overview: This study assesses the impact of early school leaving on life outcomes, and the perpetuation of educational disadvantage through intergenerational academic attainment and bias.

School: Coláiste Mhuire,
County: Westmeath
Teacher: Eva Acton
Student(s): Seán Murphy

2304

Title: The application of abstract mathematical theories to mitigate against racial and gender bias in AI

Overview: An investigation of the application of abstract mathematical theories to mitigate against racial and gender bias in AI
School: Rathmore GS
County: Antrim
Teacher: Noel McIlvenny
Student(s): Eoin Rossney-Hyde

2305

Title: Neuro-cognitive effects of Generative AI-created vs. Human-created content on teens, comparative study on Neuroplasticity and Cognitive Load.

Overview: The project investigates how Generative-AI's perpetual ability to produce personalised content rapidly influences the brain compared to generic human-made content, emphasizing creativity and cognitive load.

School: Marian College
County: Dublin
Teacher: Dr Eamonn McCabe
Student(s): Arjun Gambhir

2306

Title: A New Era Of Politics: The influence of social media on political engagement among Irish youth

Overview: Investigating the level of influence social media has on the next generation in Ireland regarding politics

School: Sutton Park School
County: Dublin
Teacher: Joanne Hanratty
Student(s): Daniel Smith

2307

Title: Cleaning the Air

Overview: My project examines public perceptions on second hand vaping and policy preferences

School: Our Lady's Bower
County: Westmeath
Teacher: Ellen Maguire
Student(s): Hannah Devlin

2308

Title: Starry Nights or Missed Delights?

Overview: My project evaluated public interest in astronomical events, identified participation barriers, and implemented interventions to foster a deeper connection with the universe.

School: Our Lady's Bower
County: Westmeath
Teacher: Ellen Maguire
Student(s): Michelle Hughes

2309

Title: Defib Locators

Overview: AEDs are vital life-saving devices, but only 17% are registered with the ambulance service. Why? Can I dramatically improve this statistic and how?

School: Our Lady's Secondary School
County: Monaghan
Teacher: Amy Byrne
Student(s): Clíodhna Ward

2310

Title: Sleepless Nights and Joyful Days: The New Parent Experience – An investigation into the experience of parenthood for new parents

Overview: This investigation aims to explore the hardship experiences of new parents, focusing on the emotional, social, and practical challenges they face

School: Ballybay Community College
County: Monaghan
Teacher: Paul Mc Cabe
Student(s): Megan Foy

2311

Title: CAO Or (C)AI?

Overview: My project aims to examine the effects of Artificial Intelligence (AI) on college course choices and future careers

School: Mercy Secondary School Mounthawk
County: Kerry
Teacher: Fiona O'Connor
Student(s): Máire O'Connor

2313

Title: An Investigation into the Factors Influencing how People Learn Most Effectively

Overview: An investigation into how factors such as hobbies, age and gender influence how a person learns most effectively.

School: Middleton College

County: Cork
Teacher: Simon McKeown
Student(s): Phoebe Sexton

2315

Title: Melody In Motion: An Interactive Learning Experience

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 Rush
County: Dublin
Teacher: Chris O'Connell
Student(s): Sophie Monks

2316

Title: Resonance and Response: Psychoacoustics in Behavioural conditioning.

Overview: My project aims to study the effects of music on social dynamics and it's use as an instrument to foster empathy.

School: Athlone Community College
County: Westmeath
Teacher: Sean Kerr
Student(s): Seaghán Sibindi

JUNIOR GROUP

2400

Title: An Éifeacht Mandela: Conas a oibríonn sé? The Mandela Effect: How does it work?

Overview: Conas a oibríonn An Éifeacht Mandela, agus An féidir linn é a úsáid chun cuimhní a athrú?

How does The Mandela Effect work, and can we use it to manipulate memories?

School: Coláiste An Phiarsaigh
County: Cork
Teacher: Clíodhna Cotter
Student(s): Holly Ní Riordáin, Jennifer Ní Laoire

2401

Title: Have science books evolved enough to include sufficient female scientist references?

Overview: We are comparing science textbooks, both old and modern, LC and JC, to see if references to females in Science have improved over time.

School: Coláiste Muire Máthair
County: Galway
Teacher: Sinéad Phillips
Student(s): Liya Walsh, Crystal Quinn

2402

Title: An investigation into the initial success of the new Deposit-Return Scheme. Why are 25% of people still not using it?

Overview: We will survey people to investigate the reasons why 25% of people are not using the scheme to recycle plastic bottles and aluminium cans?

School: Abbey Vocational School
County: Donegal

Teacher: Donna Furey
Student(s): Caoimhín Cradock, Rian Mc Callig, Oisín Kerrigan

2404

Title: Mental Health in Agriculture
Overview: A social study on how poor mental health is the biggest hidden danger in farming today.

School: St Ciarán's College
County: Tyrone

Teacher: Pauline Murphy
Student(s): Caitlín McGartland, Grace McGarvey, Sarah Donaghey

2405

Title: The Grade Inflation Bubble: Is the Leaving Certificate creating a generation of inequality and false success?

Overview: Our research investigates the short term and long term effects of Leaving Certificate grade inflation on students.

School: Newbridge College
County: Kildare

Teacher: Anne Marie Davis
Student(s): Grace Joyce, Amira Curran

2406

Title: Athghabháil ar ais go spóirt do mhná óga. Cad é a thig linn a dhéanamh?

Young women's re-engagement in sport. What can we do?

Overview: Éiríonn girseachaí as spóirt ach leanann cuid acu ar aghaidh. Déanfaimid fiosrúchán ar na cúiseanna agus úsáidfimid an t-eolas le hiad a spreagadh ar ais. Girls drop out of sport, we are studying why others choose to continue. Can we utilize this data to encourage reengagement?

School: Pobalscoil Ghaoth Dobhair
County: Donegal

Teacher: Siobhan Uí Shearcaigh
Student(s): Muireann Repenning, Sophie Nic Giolla Easbuig, Fionnuala Nic Aodha Bhúí

2407

Title: Let's Talk Trash!

Overview: We want to investigate the knowledge, attitude and practices towards waste management of people in our local area.

School: Scoil Mhuire
County: Roscommon

Teacher: Mairead Glynn
Student(s): Fionn Nolan, Cian Conroy, Leighton O'Flynn

2408

Title: Solvitur Ambulando:

An Investigation into the Correlation between Walking and Problem-Solving Ability in Female and Male Students

Overview: An investigation into the relationship between walking and performance in a nonverbal problem-solving test. Specifically, different durations.

School: Loreto College The Green
County: Dublin

Teacher: Laura Tobin
Student(s): Elizabeth McGovern, Anna Zheng, Siofra Fitzmaurice

2409

Title: Beyond the Binary: Statistical Insights into Inclusion and Perceptions of Transgender Athletes in Competitive Sports

Overview: This project investigates societal attitudes towards transgender athletes, focusing on policy impacts and inclusivity in sports through a detailed survey and comprehensive analysis.

School: St Bricin's College
County: Cavan

Teacher: Daryl Dunne
Student(s): Sinead O'Reilly, Keeva Courtney

INTERMEDIATE GROUP

2500

Title: How do the people around us affect our productivity?

Overview: In our project we wish to investigate whether we are more productive around our friends or strangers in a work or school environment.

School: Boyne Community School
County: Meath

Teacher: Aoife Fox
Student(s): Zuzanna Pekala, Ava McEvoy

2501

Title: Perceptions and attitudes among the Irish public, landowners and farmers towards birds of prey in Ireland: A case study on hen harrier conservation in Ballyvourney

Overview: An in-depth examination of the conservation efforts for hen harriers in the locality of Ballyvourney.

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

Teacher: Shannen Foley
Student(s): E Chonaola, Cara O' Brien

2502

Title: Educate to Decelerate

Overview: Our project is about telling drivers that speeding doesn't actually save you that much time

but increases the risk of road deaths.

School: Coláiste Lorcaín
County: Kildare

Teacher: Aodhagan O Suilleabhain
Student(s): Róisín O'Reilly, Akhila Thelakattu, Claire O'Sullivan

2503

Title: Hidden in Plain Sight: Exploring the Blind Spots of Attention in Young Adolescents

Overview: This project examines how intentional distractions impact young adolescents' attention, exploring whether distractions lead to inattentive blindness and missed critical details in tasks.

School: Meánscoil na mBráithre Criostaí

County: Kilkenny
Teacher: Caroline Cotter
Student(s): Jaysen John, Alfie Byrne

2504

Title: Should Children Under 12 Be Banned From Owning Smartphones?

Overview: Investigating if children under the age of 12 should be banned from owning a smartphone.

School: St Mary's Secondary School Macroom

County: Cork
Teacher: Roisin O Keeffe
Student(s): Kayla Casey, Leah Lawlor

2505

Title: Building Barriers: Unravelling why women are underrepresented in the construction industry

Overview: Examining the reasons why women aren't taking up careers in the construction industry.

School: St Mary's Secondary School Macroom

County: Cork
Teacher: Roisin O Keeffe
Student(s): Lilly Meyler, Lauren Crowley Payne, Molly Kelleher

2506

Title: An Investigation into the Impact of Hospital Overcrowding on Patients and Healthcare Providers

Overview: We will examine the impacts of hospital overcrowding on doctors and patients and the overall quality of treatment they receive.

School: St Mary's Secondary School Macroom

County: Cork
Teacher: Roisin O Keeffe
Student(s): Clodagh Murray, Katie Purcell, Shauna O' Sullivan

2507

Title: Are we losing the ability to differentiate between AI and reality?

Overview: Testing to see if people in our generation are losing the ability to tell the difference between artificial intelligence and reality.

School: Loreto Secondary School
County: Kilkenny

Teacher: Brendan Williams
Student(s): Amy Cahill, Sarah Rowe

2508

Title: Herd mentality and how peer pressure affects secondary school students

Overview: Herd mentality refers to the tendency of individuals to follow the actions and decisions of a larger group, often without critical thinking.

School: Meánscoil na mBráithre Criostaí

County: Kilkenny
Teacher: Caroline Cotter
Student(s): Jack Dunne, Cooper Delaney, Jack Power

2509

Title: Investigating the factors that influence parental and student perception of apprenticeships and promote it as a career choice using a digital platform.

Overview: To investigate the factors that influence parental and student perception of apprenticeships and promote it as a career choice.

School: Meánscoil na mBráithre Criostaí

County: Kilkenny
Teacher: Caroline Cotter
Student(s): Eoin Moore, Sam O'Shea, Conor Leahy

2510

Title: The power of the right mindset in improving cognitive test performance.

Overview: Investigating whether students can be influenced by third parties to alter their self-confidence and consequently alter their performance results in cognitive tests.

School: St Mary's High School
County: Cork

Teacher: Michelle O' Driscoll
Student(s): Sheana Hayes O' Mahony, Claire Mulcahy, Clodagh McCarthy

2511

Title: The Importance of Golf Psychology

Overview: A study of the mental game of golf. Can poor performance or distraction affect future play?

School: Clonakilty Community College
County: Cork
Teacher: Patrick O'Keefe
Student(s): Peadar Dinneen, Euan Whelton, Eoghan Minihan

2512

Title: How does being a “teen carer” while attending a DEIS school affect academics, social life and wellbeing.

Overview: An investigation into the effects of being a teen carer in a DEIS school.

School: Roscommon Community College

County: Roscommon

Teacher: Elizabeth Glancy

Student(s): Alanna Cleary, Riley Davies

2513

Title: The Hitchhiker's Guide to the Manosphere – the Effects of Manosphere Content on the Mental Health of Adolescent Boys

Overview: The manosphere is a collection of online anti-female communities negatively influencing adolescent boys. Our project demonstrates this impact and delivers solutions to address it.

School: Loreto Secondary School

County: Cork

Teacher: Ciara Motherway

Student(s): Amelie Nolan, Beatrice Cesonyte

2514

Title: Chess your IQ

Overview: Our project investigates the positive effects of chess on cognitive ability and examines if these effects decrease with age.

School: St. Joseph's Secondary School, Navan

County: Meath

Teacher: Bronagh Farrell

Student(s): Manal Fantazi, Grace Gibbs

2516

Title: An investigation into how young children are accessing age restricted social media platforms and the impact on their mental well-being

Overview: We want to find out how children under the age of 13 access age-restricted apps and websites and how it affects their mental health.

School: Borrisokane Community College

County: Tipperary

Teacher: Rachel Ahern

Student(s): Demi Watson, Grace Clarke

2517

Title: An Investigation into farmers opinions on the importance of water quality and pollution risk management

Overview: We are making a survey to ask farmers opinions on different rates of water quality and pollution risk management on their farm.

School: Borrisokane Community College

County: Tipperary

Teacher: Rachel Ahern

Student(s): Cian Rushe, Jack Slevin, Emmet Dwyer

2518

Title: An investigation into the attitudes and opinions of Young Immigrants on living in Ireland.

Overview: To carry out a statistical analysis on whether your socio-economic background influences your opinions and attitudes on refugees in Ireland.

School: Borrisokane Community College

County: Tipperary

Teacher: Rachel Ahern

Student(s): Gemma Gaynor, John Torpey

2519

Title: Skip The Wait, Don't Be Late

Overview: When we went onto our holidays, the biggest time waste was boarding the plane. How can we fix this while maximising profit?

School: Coláiste Mhuire

County: Westmeath

Teacher: Eva Acton

Student(s): Ben Poynton, Patrick Carolan, Alan Dziadosz

2520

Title: A Scientific Inquiry of Adolescence Awareness and Perceptions of Creatine Supplementation

Overview: To assess the level of awareness, knowledge, and perceptions regarding creatine and to evaluate the factors influencing their understanding and potential usage.

School: Meánscoil na mBráithre Criostaí

County: Kilkenny

Teacher: Caroline Cotter

Student(s): Alexander Prior, Sean Rea

2521

Title: Maths 4 All

Overview: This project investigates possible readability barriers for dyslexic students in Junior Cycle maths

School: Our Lady's Bower

County: Westmeath

Teacher: Ellen Maguire

Student(s): Lucy Fleming, Elsie Allen

2522

Title: An investigation into the need for extra examination time for students with additional learning needs

Overview: Our project aims to bring awareness to the need for extra time in state exams for students with learning disabilities in Ireland

School: Our Lady's Bower

County: Westmeath

Teacher: Rachel Hobbs

Student(s): Sive O'Brien, Madison Moore

2523

Title: The future of AI

Overview: My team will investigate AI models and their current uses, along with research into the advancement of computer technology.

School: City Vocational School

County: Kilkenny

Teacher: John Flood

Student(s): Pol Vilagines Pique, Pau Llagostera Giess

2524

Title: Humans vs. AI: Testing the Detectives of AI Authenticity

Overview: A test to see how efficient people and software are at identifying AI generated content.

School: Coláiste an Spioraid Naomh

County: Cork

Teacher: Crona McCarthy

Student(s): Yannick Daly-Trillaud, Timmy Linert, David Dunitrescu

2525

Title: Perception of recovery from concussions in adolescent GAA players: A study on cognitive, physical and emotional factors.

Overview: To investigate the perception of recovery from concussion in adolescent GAA players focusing on the impact of concussions on their cognitive, physical & emotional health

School: Meánscoil na mBráithre Criostaí

County: Kilkenny

Teacher: Caroline Cotter

Student(s): Oisín Henderson, Paddy O'Brien, Padraic Meany

2526

Title: Uncanny Valley

Overview: We will be investigating the uncanny valley theory using statistics from a survey completed by our peers.

School: Our Ladys School

County: Dublin

Teacher: Niamh Crowley

Student(s): Emma Clarke, Nicole Lin

2527

Title: The prevalence of the use of different types of mouth guards among Dundalk athletes

Overview: This project will aim to show the relevance of wearing a high quality mouth guard to prevent TDI during Gaelic football

School: De La Salle College

County: Louth

Teacher: Cara Mc Adam

Student(s): Conor Lynch Smith, Daire Musonda, Darragh Owens

2528

Title: “Speechumpy” Speech Development App

Overview: Our project aims to develop an app to help young people under the neurodivergent umbrella improve their communication.

School: Coláiste na Mí

County: Meath

Teacher: Kate Richardson

Student(s): Adelija Petrauskaite, Hollie Mc Cabe

2529

Title: Neuro-Logic: How accommodating are accommodations?

Overview: We are completing a comprehensive overview of the SEC accommodation system, investigating the effectiveness of this scheme and increase the awareness of neurodiversity.

School: Eureka Secondary School

County: Meath

Teacher: Bernadette O'Dwyer

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

2530

Title: The Outsiders: An Investigation into Exclusion and Othering

Overview: Our project aims to investigate the psychology of exclusion and othering along with ways to reduce it by way of increasing empathy.

School: Coláiste Choilm

County: Cork

Teacher: Paudie Scanlon

Student(s): Ava Smyth, Frances O'Mahony

2531

Title: Is Childhood Shrinking? Is childhood shrinking?

Overview: An investigation into the factors that causes childhood shrinkage and the decline in creativity amongst modern children.

School: St Mary's Secondary School Macroom

County: Cork

Teacher: Michelle Maher

Student(s): Grace Tuohy, Zong Oriordan

2532

Title: An investigation into dynamic ticket pricing and cost barriers to concert attendance

Overview: Examining how concert ticket and hotel prices affect people and may put them off going to concerts

School: St Mary's Secondary School Macroom

County: Cork

Teacher: Michelle Maher

Student(s): Hollie Ronayne, Szonja Mora

2533

Title: Anaerobic Digester-Gadget or Gimmick? A study of the practical, financial and environmental benefits of using an anaerobic digester in our school community.

Overview: Raise awareness of a BioCircular economy in our school and investigate what type of food exports the highest amount of energy in our anaerobic digester.

School: Skibbereen Community School

County: Cork

Teacher: Alison Dullea

Student(s): Anna McCarthy, Orla McCarthy, Shauna Hourihane

2534

Title: The Impact of Blue Light Exposure on mental health in teenagers

Overview: Investigating the effects of blue light exposure on teenage mental health.

School: Cistercian College Roscrea

County: Tipperary

Teacher: Jennifer Denny

Student(s): Jaafar El Kateb, Unai Guibert

2535

Title: Are we better off without phones in school?

Overview: In our project, we are aiming to investigate if students concentration, behaviour and social skills are influenced by phones.

School: Coláiste Mhuire

County: Galway

Teacher: Conor Delaney

Student(s): Caoimhe Molloy, Megan Crehan

2536

Title: Is there a way to improve traffic flow in the Burren?

Overview: We are examining traffic flow patterns in the Burren with the view of developing a traffic flow plan for the future.

School: Mary Immaculate Secondary School

County: Clare

Teacher: John Sims

Student(s): Alisha Brody, Áine Kelly

2537

Title: The Time Factor: How the speed of thought can conceal talent and challenge fairness in time-limited state exams.

Overview: Investigation to see if processing speed affects a student's ability to perform to their full talent in time-limited state exams.

School: Loreto High School

County: Dublin

Teacher: Grainne Ryan

Student(s): Eva McClean, Lily Foley, Isabel Lynam

2538

Title: Moo-ving Beyond Milk! A study of the acceptance of plant-based milk alternatives (PBMA) before and after being provided with a list of ingredients

Overview: We will investigate the effect of being provided with a list of ingredients of PBMA on the person's willingness to purchase and/or consume the product

School: Coláiste Treasa

County: Cork

Teacher: Siobhan O Sullivan

Student(s): Cillian Collins, Josh O'Sullivan

2539

Title: Green Means Go! - A front-of-package labelling system encouraging consumers to make sustainable choices

Overview: Our project aims to educate consumers on making sustainable food choices by using a traffic light system to easily show food miles and carbon emissions.

School: Dundalk Grammar School

County: Louth

Teacher: Peter Weldon

Student(s): Eoin Larkin, Jack Wang

2540

Title: A statistical analysis of a before and after study (2019-2024) to assess the impact of pandemic induced lifestyle changes on adolescent internet usage effects.

Overview: An investigation into the impact of pandemic induced lifestyle changes on the effects of internet usage by adolescents using a before and after study (2019-2024).

School: Coláiste Treasa

County: Cork

Teacher: Thomas Healy

Student(s): Ronan Hynes, Dan Lane

2541

Title: Does the type of media you watch before bed affect your quality of sleep?

Overview: Our project aims to find out how the hormones released

in response to watching different types of media, before going to bed, impacts our sleep.

School: St Mary's High School

County: Cork

Teacher: Michelle O' Driscoll

Student(s): Aoife Martha Porter, Abbie Roche

2542

Title: Investigating If Mindset Manipulation Can Counteract Physical Limits Imposed on Vision

Overview: We are investigating if vision can be improved when participants are experimentally induced to believe or not believe that they can see especially well.

School: Coláiste Choilm

County: Cork

Teacher: Karina Lyne

Student(s): Clara Murphy, Roxanne Barry Verling, Sarah O'Connor

2543

Title: Watch your head!!

Overview: Seeing the difference in safety between hockey and camogie helmets

School: Regina Mundi College

County: Cork

Teacher: Brian Deasy

Student(s): Roisin Murphy, Hannah Hunt

2544

Title: An bhfuil tionchar ag na meáin shóisialta ar thuairimí dhéagóirí faoi mhná agus an spreagann sé fuath ban?

Does social media have an effect on teenagers' opinions of women and does it encourage misogyny?

Overview: Déanfaimid taighde ar an méid fuathban ar na meáin shóisialta agus fiosróimid an tionchar ar thuairimí déagóirí maidir le mná.

We will examine misogynistic content on social media and investigate its influence on teenagers attitudes towards women to highlight a growing issue of concern.

School: Coláiste Daibhéid

County: Cork

Teacher: Amy Ní Laoire

Student(s): Sam Aslam, Fionn Kiely O'Maonaigh, Daniel MacFheorais

2545

Title: Snus and Sports: An investigation exploring the prevalence and impact of nicotine pouch use among athletes

Overview: The use of snus, a smokeless tobacco pouch, is rising among athletes. This study investigates its perceived effects on performance and reasons for use.

School: Coláiste Treasa

County: Cork

Teacher: Brid Anne O'Donoghue
Student(s): Cathal Murphy, Alan Brosnan, Liam Allen

2546

Title: The effect of music on adolescent behaviour

Overview: An investigation on how different music genres affect adolescence behavior

School: Roscommon Community College

County: Roscommon

Teacher: Elizabeth Glancy

Student(s): Vansh Malhotra, Jun Hwang, Bobby Brehon

2547

Title: Beatha na mbuidéal - imscrúdú ar an scéim éarlaise agus aisíoca buidéal in Éirinn. The life of bottles - an investigation into the bottle return scheme in Ireland.

Overview: Is í aidhm an tionscadail seo ná cabhrú le daoine tuiscint níos fearr a fháil ar an aidhm taobh thiar den scéim éarlaise agus aisíoca. The aim of this project is to help people gain a better understanding of the aims behind the Bottle Return Scheme.

School: Coláiste Íosagáin

County: Dublin

Teacher: Tara Turner-Heaney

Student(s): Ainnir Ní Dhonnacha, Kate Nic Cárthaigh

2548

Title: Words Without Walls: Exploring The Emotional Impact Of Language Barriers On Students

Overview: Our project investigates the emotional impact of language barriers on students whose first language isn't English, on their experiences of second level education in Ireland.

School: Roscommon Community College

County: Roscommon

Teacher: Elizabeth Glancy

Student(s): Alicia Nic an Bháird, Julia Kuczwalska

2549

Title: Drive to survive: One unnecessary death is too many: analysing the role of driver's education in road safety

Overview: Does driver education in secondary school make a difference in how people think when they do drive?

School: Coláiste Treasa

County: Cork

Teacher: Brid Anne O'Donoghue

Student(s): Farrah Sheill, Kate Duane

2550

Title: Step up your day, endorphins are on the way!

Overview: We are investigating

healthy ways to increase serotonin levels in teenagers

School: Meán Scoil an Chlochair

County: Westmeath

Teacher: Niamh Daly

Student(s): Clíódhna Kinnarney, Emma Sue Tandy, Emily O'Neill

2551

Title: Seas Apart, Tides Alike

Overview: This comparative study of flood defences in Ireland and Spain seeks to identify effective strategies and promote mutual learning to improve resilience against coastal erosion

School: Coláiste Mhuire,

County: Westmeath

Teacher: Eva Acton

Student(s): Arnau Montal, Ignacio Marchante Crusells, Darragh Vickery

2552

Title: Meoin Muintir na Tíre i Leith

Freastal ar Ghaiscoileanna.

Peoples Attitudes Towards

Attending Irish Speaking Schools

Overview: Rinneamar suirbhé ag iarraidh comparáid a dhéanamh grúpa daltaí faoin tuaith agus i gceantar uirbeach ar a meoin i leith freastal ar Ghaiscoileanna. We did a survey to compare students from the country side and urban areas and their thoughts on attending Irish schools.

School: Coláiste Chilliaín

County: Dublin

Teacher: Ruth Ní Mhuirí

Student(s): Aoife Nic Siacais,

McKenzie Nic an Tuille

2553

Title: Digital Dialect: A dive into the effects of technology on speech development and sociolinguistics

Overview: We aim to investigate how technology influences speech development and sociolinguistics in young people, exploring changes in vocabulary, syntax, accents, dialects, and code-switching.

School: Scoil Muire gan Smaí

County: Roscommon

Teacher: Colm Connolly

Student(s): Mattea Cox, Siobhan Beattie

2554

Title: Investigating the influence of social media on politics with particular reference to TikTok and the upcoming US elections

Overview: to investigate the full capability of TikTok influencing peoples political view on events such as presidential campaigns

School: Coláiste Choilm

County: Cork

Teacher: Rachel Burke

Student(s): Orla Slattery, Clodagh O'Sullivan

2555

Title: Does social media affect morality?

Overview: We want to find out how social media can affect your decision making

School: Inver College

County: Monaghan

Teacher: Rebecca Beirne

Student(s): Dylan Babczak, Oliver Arczynski, Alicia Ward

2556

Title: An investigation into the potential gender bias in the diagnosis and treatment of chronic pain conditions in Ireland

Overview: We'll investigate whether gender bias in the treatment of chronic pain is a prevalent issue in Ireland. We aim to highlight underrepresented women in healthcare.

School: Ramsgrange Community School

County: Wexford

Teacher: Alanna Roche

Student(s): Colleen Waters, Katie Franklin, Sophie Hart

2557

Title: Paid to persuade: Should we trust Irish Influencers?

Overview: This project will look at how social media influencers affect what teenagers and adults buy, and how this influence might be different between the two.

School: Ballinteer Community School

County: Dublin

Teacher: Orlaith Martin

Student(s): Ava Whelan, Mia Keegan, Lucia Paraja Fernández

2558

Title: An analysis of the abilities that different age groups have to detect artificial intelligence and how it can spread misinformation on social media.

Overview: This project will explore how different age groups interpret AI and misinformation created by AI on social media and provide knowledge to fix this.

School: Glenart College

County: Wicklow

Teacher: Maevie Mulpeter

Student(s): Isobel Weadick, Goda Baranauskaite, Aimee Ciara Keogh

2559

Title: Bronzed Perceptions: Investigating the perceptions of fake tan use among Irish female adolescents

Overview: The objective of this study is to investigate the perceptions of fake tan use amongst Irish female adolescents

School: Ursuline College Blackrock

County: Cork

Teacher: Sarah Jane Brady

Student(s): Meabh O' Connor, Amelia O'Halloran, Ronja Crowley-Peetersoo

2560

Title: A statistical analysis on the problems associated with domestic and industrial e-waste and solutions towards a sustainable future

Overview: We aim to explore the extent of Ireland's E-waste problem within domestic and industry environments and suggest solutions towards a circular economy.

School: Coachford College

County: Cork

Teacher: Emma O Connell

Student(s): Jack O'Riordan, Euan Orchard

2561

Title: UTR your batteries

Overview: Our project is about recycling batteries better and more efficiently, we will highlight how to UTR or use, test and recycle batteries.

School: Loreto High School

County: Dublin

Teacher: Grainne Ryan

Student(s): Bella Devlin, Abaigh Frain

2562

Title: To ask or not to ask - that is the question!

Overview: The objective of our study is to improve understanding of question asking in class. We noticed few of our peers ask questions - why?

School: Presentation Secondary School Milltown

County: Kerry

Teacher: Denis Maguire

Student(s): Siobhan Murphy, Esther Tyther

2563

Title: Inclusivity in a modern, diverse Irish classroom: An Investigation into how music can help a broader range of students.

Overview: We want to find out if music can help cognitive performance and could improve concentration in exam and classroom settings and promote inclusivity

School: Santa Sabina Dominican College

County: Dublin

Teacher: Eimear Maloney

Student(s): Grace O'Neill, Aisling Hughes

2564

Title: Scroll, Like, Think: How Social Media Shapes Students' Media Literacy

Overview: How social media algorithms may influence a student's ability to evaluate the reliability of new content and affect critical thinking.

School: Loreto Community School

County: Donegal

Teacher: Roisin Coyle

Student(s): Honor Geary, Salvatorie Diver

2565

Title: An investigation into the effects of algorithms on culture, interactions, and social issues.

Overview: We are investigating the effects of algorithms on society, culture, social interactions, social issues, economies on a local scale, and people's awareness of them.

School: Coláiste Treasa

County: Cork

Teacher: Peig O Connor

Student(s): Humphrey Moynihan, Ian O'Reilly

2566

Title: The strategies and attitudes women have on period pain relief and their impacts

Overview: We will compare and analyse the different opinions and methods females have on period pain relief and the possible over use of paracetamol in girls

School: Loreto College

County: Cavan

Teacher: Collette Fay

Student(s): Genevieve McManus, Aoife Doherty

2567

Title: Déja vu: Does it happen to you?

Overview: This is a project to experiment with what age groups déjà-vu happens to, how often and what positive or negative experiences of it.

School: Greystones Community College

County: Wicklow

Teacher: Rebecca Wray

Student(s): Teodora Bot, Emer Rowe, Nina Dobrzanska

2568

Title: AI Art vs. "Real Art" – a study on the public's perceptions of the arts and awareness of dangers associated with AI.

Overview: Surveys and pop up galleries will provide insights on how the public perceives the arts and whether they can differentiate AI art from human art.

School: St Joseph's Secondary

Social & Behavioural Sciences

RTE

School Rush
County: Dublin
Teacher: Helen Teehan
Student(s): Allison Joyce, Emily Mackenzie-Roach

SENIOR GROUP

2600

Title: Do I have your number one vote and why? A statistical analysis of people's attitudes towards voting in local and general elections.

Overview: Our project aims to find out about people's attitudes and habits toward voting in both local and general elections.

School: St. Brogan's College, Bandon

County: Cork

Teacher: Sara Hurley

Student(s): Caoimhe Ryan, Ella O'Driscoll, Tadhg Óg O'Donovan

2601

Title: Can delta wave induction techniques improve sporting performance?

Overview: Investigating if delta wave techniques and psychosensory therapies can be used to improve sporting performance using darts as an exemplar.

School: Cashel Community School

County: Tipperary

Teacher: TJ Quinn

Student(s): Mary Ellen Holmes, Emma Brosnan

2602

Title: Can we use CAT4 results as a predictor of Leaving Cert performance?

Overview: We will try to find a correlation between CAT4 and Leaving Cert performance.

School: Cashel Community School

County: Tipperary

Teacher: TJ Quinn

Student(s): Oisín Howley, Sean Slattery, Adam Whyte

2603

Title: Mind the gap: Modernising study habits

Overview: Investigating how the intention-action gap affects students' study habits and finding practical solutions to this issue, including a holistic application prototype.

School: Tallaght Community School

County: Dublin

Teacher: Kate O' Gorman

Student(s): Ashlee Keogh, Aimee Keogh

2604

Title: Comprehensive Financial Literacy: Fraud Awareness and Investment Strategy

Overview: This program combines essential financial literacy education with practical investment strategies, emphasizing fraud awareness, and helping participants build wealth while protecting themselves from financial scams.

School: Coláiste Mhuire,

County: Westmeath

Teacher: Eva Acton

Student(s): Dylan Kennedy, Brian Wycherley, Charlie Dupuis

2605

Title: An investigation into contemporary propaganda and a retrospective on widespread misinformation campaigns

Overview: This project aims to research propaganda, its evolution, and the many forms modern propaganda takes, providing new context to the media shared by the internet.

School: Roscommon Community College

County: Roscommon

Teacher: Elizabeth Glancy

Student(s): Luke Hussey, Aidan Leonard, Alexander Lecuyer

2606

Title: An analytical investigation into people's behaviour in relation to the Deposit Return Scheme (DRS)

Overview: Our projects main aim is to find out if the DRS has

changed people's behaviour and attitude in relation to recycling.

School: Kinsale Community School

County: Cork

Teacher: Aisling Hennebry

Student(s): Ellie Sheedy, Ruairí O'Daltuin

2607

Title: Recycling Revolution: Is the Deposit Return Scheme Delivering?

Overview: An investigation into whether the Deposit Return Scheme (DRS) is encouraging recycling in the public, and to provide suggestions to make it more accessible in Ireland

School: Coláiste Mhuire,

County: Westmeath

Teacher: Eva Acton

Student(s): Sergio Pinto Aguirre, Michael Doyle, Sukhjeevan Singh

2608

Title: Hands on or hands off? The trade puzzle

Overview: In our project we will be investigating the decline of interest in trades and how we can encourage more interest

School: Pobalscoil Inbhear Scéine

County: Kerry

Teacher: John O'Sullivan

Student(s): Colm Cronin, Ethan Brennan, Rossa Mac Gearailt

2609

Title: How our poor voice perception makes us an unreliable ear witness.

Overview: An analysis of how successful we are at identifying physical characteristics from a person's voice.

School: Coláiste Muire Máthair

County: Galway

Teacher: Anthony Carey

Student(s): Ali Amirouche, Seojin Lee

2610

Title: SELF-ish: A study of the effects of egocentrism on the youth

Overview: A study of the levels of egocentrism amongst youth and examine the effects it has on them both conscious and subconscious.

School: Kinsale Community School

County: Cork

Teacher: Shaun Holly

Student(s): Martin Hickey, Róisín O'Riordan

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Biological & Ecological Sciences

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JUNIOR INDIVIDUAL

3100

Title: Looking for tiny fossils hidden in the Burren limestone.

Overview: I am looking to see whether limestone in the Burren contains anything other than pure limestone and if so to identify what it contains.

School: Mary Immaculate Secondary School

County: Clare

Teacher: John Sims

Student(s): Béibhinn O'Loughlin

3101

Title: The Big Irish Head On You!

Overview: I am testing if the saying 'the big Irish head on you' is true by comparing head circumference and shoulder width for Irish people

School: Coláiste Chiaráin

County: Limerick

Teacher: Edel Farrell

Student(s): Farrah Corbett

3102

Title: An oibríonn dlí Benford le tacar Sonraí in Éirinn?

Overview: Does Benford's law work on Irish datasets?

Overview: Sa tionscadal seo fiosaíonn muid dlí Benford maidir le tacair shonraí na hÉireann agus a úsáid a fhiosrú. This project examines Benford's Law and see if it holds true for Irish datasets and investigates its applications.

School: Pobalscoil Ghaoth Dobhair

County: Donegal

Teacher: Susan Ní Loinsigh

Student(s): Rónán Ó Dochartaigh

3103

Title: Bowled Over: A statistical analysis of bowling in cricket analysing both the male and female aspects of the game using live data.

Overview: A statistical analysis of bowling in cricket analysing both the male and female aspect of the game using averages, standard deviation and Pearson's correlation coefficient.

School: Clongowes Wood College

County: Kildare

Teacher: Yvonne Nolan

Student(s): Eli-John Kiernan

3104

Title: Analysis of voice frequencies using FFT

Overview: I want to analyse peoples voices using a microphone and a datalogger which sends the voice signal to a FFT graph on my computer

School: Ennistymon Community School

County: Clare

Teacher: Sean Murphy

Student(s): Jacob McEntee

INTERMEDIATE INDIVIDUAL

3200

Title: Using modern AI models to analyze legacy data from Imaging Atmospheric Cherenkov Telescopes

Overview: Using machine learning techniques to identify and analyze legacy data from Imaging Atmospheric Cherenkov Telescopes with better accuracy and efficiency.

School: Presentation College Headford

County: Galway

Teacher: John Toner

Student(s): Matthew Daly

3201

Title: Iníúchadh ar na hÉagsúlachtaí a Fhaightear idir Samhlacha Difríúla Dinimice Néarón. An Exploration of the Differences Found Between Different Models of Neuron Dynamics

Overview: Féachfaidh mé ar shamhlacha matamaiticiúla éagsúla den tslí a fheidhmíonn néaróin agus baileoidh mé torthaí uathu. Ansin, déanfaidh mé comparáid agus anaílís ar na torthaí. I will examine different mathematical models of neurons and utilise said models to gather results. Then, I will compare and analyse this data.

School: Gaelcholáiste Mhaigh Nuad

County: Kildare

Teacher: Maria Ní Ghóillidhe

Student(s): Niamh Másúin

3202

Title: Sustainable and efficient artificial photosynthesis system

Overview: A sustainable and efficient artificial photosynthesis system aiming for the minimum energy conversion efficiency of 30%. The setup will use low-cost and widely available materials.

School: Presentation College Headford

County: Galway

Teacher: John Toner

Student(s): Sarah Mongey

3203

Title: Innovative Recycling: Sustainable Distillation of Ethanol from Waste Hand Sanitiser for Perfume Production.

Overview: To create a viable, safe, eco-friendly product produced from waste hand sanitiser through distillation and address a global environmental issue of reducing chemical waste.

School: St David's Holy Faith Secondary

County: Wicklow

Teacher: Garry Lynch

Student(s): Alannah Lynch

3204

Title: A Focus on the Moving Sofa Problem

Overview: My project takes a look at the Moving Sofa Problem. If Gerver's solution is optimal. What changes can be made Gerver's solution?

School: Dominican College

County: Drumcondra

County: Dublin

Teacher: Gemma Kirwan

Student(s): Olivia Cleary

3205

Title: Which Plant is the Best Defence Against Ocean Acidification?

Overview: The aim is to deduce which, from several aquatic plants, are the most effective for reducing carbon dioxide levels in seawater.

School: Coláiste Chiaráin

County: Limerick

Teacher: Edel Farrell

Student(s): Ruben Massey

3206

Title: Triangulation: Using Mathematical Formulae & Trigonometry to derive the third point in a triangle

Overview: Using Co-ordinate Geometry, Trigonometry and Python Code to, given 2 points and their corresponding angles, find the co-ordinates of the last point in a triangle.

School: St Kilian's Deutsche Schule

County: Dublin

Teacher: Lisa Waters

Student(s): Eric Ajwani

3207

Title: A mathematical investigation into how the loft of a golf club affects the golf ball and its flight path

Overview: An investigation into how the loft [angle of a club relative to the ground] affects a golf ball during flight.

School: Blackrock College

County: Dublin

Teacher: Aoibh Steele

Student(s): Tate Tomkin Beddy

3208

Title: Safety of Tampons

Overview: Testing for lead in tampons to eliminate health risks

School: Loreto College Foxrock

County: Dublin

Teacher: Eimear Hourican

Student(s): Winni Chan

3209

Title: Investigating if Cloud Microphysics could be used to predict future

atmospheric turbulences

Overview: Using a combination of theoretical, observational and simulation-based approaches, I will investigate if it is possible to predict future atmospheric turbulences using cloud microphysics.

School: St Dominic's High School

County: Antrim

Teacher: Jamie Mulholland

Student(s): Ananyaa Rahate

3210

Title: How does the density of a material affect the pathway of electrons during the formation of a Lichtenberg figure?

Overview: Experimenting with different materials to determine if density affects the pattern of electrons in Lichtenberg figures.

School: St Peter's Community School

County: Cork

Teacher: Patrick McSweeney

Student(s): Lea Vucko

3211

Title: Spoiler Alert: pH Responsive Packaging for Food Preservation.

Overview: This project aims to create a biodegradable pH film that can be used to alert consumers when food has deteriorated to reduce food waste.

School: Dungarvan CBS

County: Waterford

Teacher: Maria McSweeney

Student(s): James Hickey

3212

Title: Go With The Flow -

Developing a reliable and robust water current monitoring system.

Overview: Developing a reliable and robust water current monitoring system

that is both inexpensive and effective while transmitting data wirelessly using LoRa technology.

School: St Joseph's Secondary School Rush

County: Dublin

Teacher: Helen Teehan

Student(s): Louis Monks

3213

Title: Tidal Forces: Investigating the Performance and Efficiency of Wave Energy Systems

Overview: Exploring the potential of wave energy as a sustainable source of power by investigating and analysing its efficiency across varying wave conditions.

School: St Joseph's Secondary School Rush

County: Dublin

Teacher: Helen Teehan

Student(s): Stephanie Cherish Dan

3214

Title: Lost, Found, and Optimised: A novel, revised outlook on

Bellman's Lost-in-a-Forest Problem

Overview: Bellman's Lost-in-a-Forest problem, an unsolved minimisation problem, will be explored and approached using modern computational tools and AI to advance our understanding in geometric optimisation.

School: Athlone Community College

County: Westmeath

Teacher: Laura Donnellan

Student(s): Srinidhi Karthik

SENIOR INDIVIDUAL

3300

Title: Using Benford's Law To Detect Electoral Fraud

Overview: Election Voter Fraud is a current and worrying topic in modern society, this project aims to use Benford's mathematical phenomenon to identify potential voter fraud.

School: Desmond College

County: Limerick

Teacher: Donal Enright

Student(s): Emma Greaney

3301

Title: An investigation concerning the existence of a secondary atmosphere on 55 Cancri e using transmission and thermal emission spectroscopy

Overview: This project seeks to investigate the existence of a secondary atmosphere on 55 Cancri e using data from the JWST.

School: Coláiste Fionnghua

County: Cork

Teacher: Harry Langley

Student(s): Habiba Dar

3302

Title: Hydro-Cyclone Impact Index: An improved framework to measure hurricane intensity using storm surge and rainfall as additional factors for evaluation.

Overview: An improved scale to measure hurricane intensity using storm surge and rainfall as another factor for evaluation.

School: The Institute of Education

County: Dublin

Teacher: Catriona Hendry

Student(s): Joel Emmanuel

3303

Title: Play The Game - An application of the Nash Equilibrium strategy to model human competitiveness, filtered by age and gender

Overview: An investigation into the use of game theory and Nash equilibriums to estimate what strategies people will use in the Prisoner Dilemma.

School: Ursuline College

County: Sligo

Teacher: Anthony Carolan

Student(s): Bláithín Brady

3304

Title: Air vortex cannons: A sustainable solution to fire extinguishment.

Overview: This project is a deep dive into the physical capabilities of vortex cannons and their application to fire extinguishment as a sustainable alternative.

School: Dundalk Grammar School

County: Louth

Teacher: Peter Weldon

Student(s): Conor Cooper

3305

Title: Are Geiger Counters reliable in detecting background radiation levels?

Overview: A comparative study of Geiger-Muller counters made in Germany, Ukraine, China with a radiation map of our school.

School: St Joseph's Secondary School Rush

County: Dublin

Teacher: Daniel Murray

Student(s): Zuzanna Komon

3306

Title: Health Benefits of Fucoxanthin: An Investigation

Overview: This project investigates the therapeutic potential of fucoxanthin, exploring its health benefits, bioactive properties, and applications, including tests for antioxidant and anti-inflammatory effects.

School: Mercy Secondary School Mounthawk

County: Kerry

Teacher: Eimear Nolan

Student(s): Marc O'Connor

3307

Title: THMs and Pesticides: Hidden Hazards

Overview: My project investigates the levels of Trihalomethanes (THMs) and pesticides in Irish waters while comparing this data on a local, national and international level.

School: Coláiste Muire Crosshaven

County: Cork

Teacher: Bridget Lehane

Student(s): Taylor Armstrong

3308

Title: A study of the formation of Hydraulic Jumps ("Holes") in a river as used by freestyle kayakers.

Overview: I will create a mathematical model for the formation of holes (river features), and test how it applies to real life holes that kayakers use.

School: Glenstal Abbey School

County: Limerick

Teacher: Jonathan Foley

Student(s): Hugo Phelan

3309

Title: Investigating the photocatalysis and antimicrobial ability of titanium dioxide using UVA, UVB and UVC

Overview: This project investigates titanium dioxide use as a unique antimicrobial agent as research shows that it uses photocatalysis using UVA light to kill bacteria.

School: St Mary's College

County: Derry-Londonderry

Teacher: Ann Blanking MBE

Student(s): Aoife O'Hagan

3310

Title: How can Complex Functions be used to model Real-World Magnetic Fields and Fluid Flow?

Overview: I will investigate the application of complex functions to model magnetic fields and fluid flow allowing for shorthand calculations of work and flux across them.

School: St Andrews College

County: Dublin

Teacher: Emily Casey

Student(s): Alois Plissonneau

3311

Title: Investigating Kombucha biofilms

Overview: Kombucha is a carbonated, fermented drink that is made of tea and sugar. This project investigates the best substrates to make the best Kombucha biofilm.

School: St Mary's College

County: Derry-Londonderry

Teacher: Ann Blanking MBE

Student(s): Brianna Mc Colgan

JUNIOR GROUP

3400

Title: Chemical Depolymerization of Plastics: Turning waste back into raw materials

Overview: Transforming waste into raw materials allows for sustainable resource management, reducing environmental impact and promoting a circular economy that benefits both society and the planet.

School: Coláiste Phádraig CBS

County: Dublin

Teacher: Jacqueline Farrell

Student(s): Muhammad Memon, Usman Imran, Nitin Viswasam Vincent

3401

Title: Nutri-Flo: A natural tree nut water filter for cattle

Overview: Designing a filter that uses Irish tree nuts to purify water in livestock drinkers, reducing both the risk of disease and toxin ingestion.

School: Moate Community School

County: Westmeath

Teacher: Mairead Cusack

Student(s): Aoife Howlin, Ally Duffy

3402

Title: Investigating periodicity in the Briggs-Rauscher reaction

Overview: An investigation into how various factors, such as concentration of reactants, temperature, and pH levels, affect the periodic oscillations in the Briggs-Rauscher reaction.

School: Coláiste Phádraig CBS

County: Dublin

Teacher: Jacqueline Farrell

Student(s): Bobby Watts, Blake Carey

3403

Title: Marine Medicine: Evaluating seaweed as nature's antibiotic

Overview: Investigating the antibacterial and antifungal properties of seaweed found at our local beach in Rush, Co. Dublin

School: St Joseph's Secondary School Rush

County: Dublin

Teacher: Kevin Delahunty

Student(s): Asha Cleary, Paula Burke, Aoife Smyth

3404

Title: Crunch Time: Unveiling the perfect potato for chips.

Overview: The project is looking to find what is the perfect potato to make chips

School: Our Lady's Bower

County: Westmeath

Teacher: Ellen Maguire

Student(s): Laoise Claffey, Amber Gallagher, Muireann Kenny

3405

Title: Bioelectrical Production: Microbial Fuel Cells (MFCs) as an alternative energy source.

Overview: Investigating the efficiency of Microbial Fuel Cells using different soil types.

School: St. Joseph's Secondary School Tulla

County: Clare

Teacher: Mairead O'Brien

Student(s): Mark Finnegan, Connor Fitzpatrick, Andrew Ivanovas

3406

Title: Applying Markov Chains to Model Stochastic Processes in Queuing Theory

Overview: We seek to apply Markov Chains to create Stochastic Processes in various queuing systems and to develop mathematical models to predict key performance metrics.

School: Coláiste Phádraig CBS

County: Dublin

Teacher: Kevin Carey
Student(s): Shafin Chowdhury, Ayman Ahmed, Kai Luthfi Mohd Adrian

3407

Title: Investigating the correlation between posture and speed in women's figure skating

Overview: This project defines how spinning in figure skating is affected by different body positions.

School: St Aloysius School
County: Cork

Teacher: Sheila Flynn
Student(s): Emilija Urbonaite, Nadia Bieganska

3408

Title: Sipping Sustainably: Evaluating Edible Water Bottles
Overview: To investigate and create edible water bottles to find out if they could become an alternative to plastic ones.

School: St Andrews College
County: Dublin

Teacher: Laura Brogan
Student(s): Emma Groarke, Ellen Treacy

3409

Title: Truaillíú Farrage: An bhfuil sé ag ionsaí an cósta? Marine Litter - Is it attacking the coastline?

Overview: Is í aidhm an tógra seo ná a fhiosrú an féidir ceangal a dhéanamh idir raic farrage & creimeadh cósta. The project aims to investigate if there is a link between drift shore washed up from marine litter and coastal erosion.

School: Coláiste Naomh Eoin
County: Galway

Teacher: Mairead Ní Fhatharta
Student(s): Cian Ó Conghaile, Máitiú Mac Donnacha, Senan Gleeson

INTERMEDIATE GROUP

3500

Title: Geometrical Applications of Generalised Complex Numbers

Overview: Our project describes a very powerful method of solving difficult geometrical problems involving conic sections, using generalised complex numbers.

School: Christian Brothers, Synge St.

County: Dublin

Teacher: Kate Walsh

Student(s): Sagnik Das, Sahibjit Singh, Muhammad Ali Butt

3501

Title: Does temperature affect magnetic forces?

Overview: We will be heating up the temperature of magnets to see

if it changes the strength of the magnetic force.

School: Marist College

County: Westmeath

Teacher: Julie Coyle

Student(s): Tadhg Dolan, Adrian Cunniffe

3502

Title: Development and Investigation of an Eco Friendly Mycelium-Based Air Filter

Overview: To develop an eco-friendly air filter using mycelium to replace traditional filters that contribute to landfill and plastic pollution and then test its efficiency

School: Clonakilty Community College

County: Cork

Teacher: Patrick O'Keeffe

Student(s): Shourya Malik, Cathal Whelton

3503

Title: Hearing Test on Secondary School Students

Overview: Hearing test for classically-trained and untrained ears in boys and girls

School: Wilson's Hospital School
County: Westmeath

Teacher: Mark Condell

Student(s): Aran Cahalan, Aileen Fox

3504

Title: Toxic Fashion

Overview: Fast fashion- the environmental effects, the views of others, influences that mold this mentality and testing whether the toxin levels vary from product to product.

School: Ursuline College

County: Sligo

Teacher: Anthony Carolan

Student(s): Lidia Raiwa, Faye Keegan

3505

Title: The effects of energy drinks on adolescents

Overview: An investigation into the mental and physical effects of energy drinks on adolescents.

School: City Vocational School

County: Kilkenny

Teacher: John Flood

Student(s): Jose Parra Alonso, Iago Soto Gómez

3506

Title: Using Hydrophobic Magnetic Particles for an eco-friendly oil spill cleanup solution.

Overview: To coat iron oxide with a hydrophobic surface and use its magnetic properties to clean marine oil spills in an eco-friendly manner

School: Athlone Community College

County: Westmeath

Teacher: Emma Buckley

Student(s): Ayvin Lijo, Toomas Donohoe, Eoin Gately

3507

Title: Discovering habitable exoplanets with the help of AI.

Overview: We aim to find habitable exoplanets using AI automation to find potential planets and then using the NASA database to verify it's habitability factors.

School: Coláiste Chiaráin

County: Limerick

Teacher: Edel Farrell

Student(s): Miles Bueno, Lillie Li

3508

Title: An investigation into how different materials absorb impact

Overview: A measurement of how several different materials can reduce the force in collisions.

School: Greystones Community College

County: Wicklow

Teacher: Rebecca Wray

Student(s): Elliot Wright, Daniel Zharkoy Murray, Harrison Lynch Reynolds

3509

Title: Chemical compounds and their balance with nature in mushrooms

Overview: Understanding chemicals which are also found in natural foods such as mushrooms.

School: Coláiste na Mí

County: Meath

Teacher: Eleanor Kennedy

Student(s): Oduwa Scott Asoro, Kresimir Juran

3510

Title: Failed stars or hidden opportunities? An investigation into the likelihood of brown dwarfs supporting life within their orbits.

Overview: Our project focuses on the celestial bodies known as brown dwarfs and their likelihood of supporting life within their orbits.

School: Ardscoil Ris

County: Limerick

Teacher: Diane Condon

Student(s): Brandon O Toole, Peter Fry, Ronan McGrath

3511

Title: "Inner Strength": An investigation of crystal structures and how they scale.

Overview: The strongest materials in the world owe their toughness to their structure. We aim to find out if these structures apply elsewhere.

School: Ardscoil Ris

County: Limerick

Teacher: Diane Condon

Student(s): Daniel Meehan, Joe Kehoe, Kevin Walsh

3512

Title: Echolocation

Overview: A study on the mechanics of echolocation, how humans with visual impairments and animals benefit from it, and a model demonstrating how echolocation works.

School: Loreto College Swords

County: Dublin

Teacher: Niamh Kilcawley

Student(s): Deryn Gosson, Sarah Doyle, Kayleigh Jordan

3513

Title: "Flow and Glow" Utilising flow cavitation and plasma to eliminate forever chemicals from water.

Overview: We will attempt to create plasma in a cavitating water flow and use it to eliminate forever chemicals.

School: Loreto College The Green

County: Dublin

Teacher: Laura Tobin

Student(s): Matilda O Muire, Maebh Tischer

3514

Title: An Investigation Into Chlorine Alternatives

Overview: We are investigating whether chlorine is safe or not and if we should actually be using it

School: Our Lady's Bower

County: Westmeath

Teacher: Rachel Hobbs

Student(s): Caoimhe Flynn Kelly, Julia Fiedorowicz, Isobel Fox

3515

Title: An investigation into micro-plastic degradation in aquatic habitats using UV and heat energy, and their potential for reducing potable water contamination.

Overview: Our 2023 study on atmospheric micro-plastics led to a new project on photo- and thermal-degradation in aquatic environments, aiming to reduce contamination in water sources.

School: St Mary's Secondary School Mallow

County: Cork

Teacher: Rory Coote

Student(s): Aimee Renton, Anna O'Brien, Katie Mae O'Neill

3516

Title: Cén tionchar a bhíonn ag timpeallacht snámha ar éifeachtacht na snámhóirí? How does the swimming environment affect the efficiency of swimmers?

Overview: Déanann an tionscadal seo imscrúdú ar thionchar gnéithe ar fheidhmíocht snámhóirí. Na bhfachtóirí a ndearnadh iniúchadh orthu bhí doimhneacht linne, teocht, leithead lána, slaodacht srl. This project investigates the impact

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stripe

of factors that may influence the performance of swimmers. The factors were pool depth, temperature, lane width, water viscosity etc.

School: Pobalscoil Ghaath Dobhair
County: Donegal
Teacher: Susan Ní Loinsigh
Student(s): Caoimhe Nic Aoidh, Éabha Nic Aoidh, Aoibhín NicDiarmada

3517

Title: Investigating the movement of medicines across a semipermeable membrane

Overview: Absorbing medicines in the digestive system and transporting them to their site of action is very important. This project investigates medicine movement across semi-permeable membranes.

School: St Mary's College
County: Derry-Londonderry
Teacher: Ann Blanking MBE
Student(s): Sophie Ryan-Deehen, Bronagh Doherty, Kiersha Moore

3518

Title: Comparáid idir Cineálacha Insiú Tí agus Anailís ar Thionchar an Tiúis ar Éifeachtúlacht Fuinnimh. A Comparison of Types of Home Insulation and an Analysis of the Effect of Thickness on Energy Efficiency.

Overview: Scrúdóidh an tionscadal seo fibreglass, cú spraeála, agus ceallalóis mar insliú tí, agus conas a dhéanann tiús an inslithe difríocht ar choinneáil teasa. This project will examine fibreglass, spray foam, and cellulose as home insulation and how the thickness of the insulation affects heat retention.

School: Gaelcholáiste Mhaigh Nuad
County: Kildare
Teacher: María Ní Ghóillidhe
Student(s): Ciara Nic Shíomóin, Emily Ní Chonchúir

3519

Title: A mathematical investigation into Ulam Spirals

Overview: Investigation into the Ulam Spiral and the distribution of primes. We will try to find patterns in the Spiral and in Prime distribution

School: Scoil Mhuire gan Smal
County: Cork
Teacher: Robert Nolan
Student(s): Qiwei Leo Xue, Tadhg Ambrose, Dylan Patterson

3520

Title: Analysing the suitability of various methods of soundproofing in an urban setting

Overview: We will measure how different materials absorb sound

waves at various frequencies to identify which materials are optimal to combat noise pollution in cities.

School: Sandford Park School
County: Dublin
Teacher: Dana Kilroy
Student(s): John Kennedy, Luke Murphy, James Grogan

3521

Title: Compost Immersion
Overview: This project aims to create a hot water dispensing machine powered by compost. It will include research on compost and the use of electronics.

School: St Mary's Diocesan School
County: Louth
Teacher: Sophie Caine
Student(s): Matthias Schazmann, Eoin Ó Gráinne

3522

Title: Another Eggciting Investigation. Using biochar to absorb phosphates to help reduce blue-green algae in Lough Neagh.

Overview: Investigating various sustainable methods to absorb phosphates to reduce the growth of blue green algae in Lough Neagh.
School: St Colman's College
County: Down
Teacher: Pauline Crowl
Student(s): Ronan Scullion, Laochra Hill

3523

Title: Peeling Back The Science: Purifying fast fashion run-off with orange peels.

Overview: We plan to utilise orange peels to purify fast fashion run-off water, and design an appropriate process that could be used in the Global South.

School: Mercy Secondary School Mounthawk
County: Kerry
Teacher: Fiona O'Connor
Student(s): Abigail Adetunji, Jeri Maeve Samonte, Jolin Weng

3524

Title: An Investigation into fluid mechanics of Peripheral Intravenous Catheters leading to improved patient outcomes.

Overview: We investigated the fluid mechanics within PIVCs and how they impact hemodynamics and shear stress within veins to better understand reasons for PIVC failure.

School: Coláiste Choilm
County: Cork
Teacher: Karina Lyne
Student(s): Siún Sweeney, Laura Dineen, Ava Collins

3525

Title: The science behind popcorn popping: Determining

ideal conditions of temperature, pressure, time, and moisture content.

Overview: Demonstrate how the process of heating and popping popcorn illustrates increasing entropy, moving from an ordered (low entropy) to a disordered (high entropy) state.

School: St. Anne's Secondary School
County: Tipperary
Teacher: Patrick Kivlehan
Student(s): Berta Heras Badia, Natalia Tarazon, Eva Leon

3526

Title: If you care breathe air
Overview: In this project we aim to analyse five chemicals and the amount of them in vapes and cigarettes and their effects on the body.

School: Coláiste Muire Crosshaven
County: Cork
Teacher: Bridget Lehane
Student(s): Saoirse O Connor Buckley, Holly Forde

3527

Title: Development of a suitable method for extracting cellulose from Irish potato varieties and its conversion into cellulose nanocrystals.

Overview: We aim to extract cellulose from waste potato skins and then convert it into Nanocellulose which could potentially be used as a fat substitute.

School: Presentation College Headford
County: Galway
Teacher: Deirdre Halleran
Student(s): Gearoid Halleran, Daire Hanrahan

3528

Title: An exploration into the potential of alternatives to fiberglass

Overview: We aim to test multiple types of fibers and resins to find a suitable, cost effective alternative to fiberglass, for use in boat building.

School: Schull Community College
County: Cork
Teacher: Thomas O'Toole
Student(s): Oliver Johnson, Liam Coughlan

3529

Title: Detecting Dummy Data and Finding Fake Facts: A statistical analysis of graph interpretation ability of the Irish population across various age ranges.

Overview: We are interested in investigating Irish people's ability to interpret graphs and identify fake data and whether this skill set changes with age.

School: Ursuline College Blackrock
County: Cork

Teacher: Sarah Jane Brady
Student(s): Leah O'Sullivan, Rebecca O'Neill, Lauren Hennessy

3530

Title: Optimising the efficiency of origami in packaging.

Overview: In this project we aim to enhance the efficiency of origami in packaging, by constructing a machine to mass produce the origami folds.

School: Mercy Secondary School Mounthawk
County: Kerry
Teacher: Eimear Nolan
Student(s): Torran Millar, Conan Seino, Feidhlim Ginyu

3531

Title: Testing the durability of different bioplastics

Overview: An investigation into the durability of different types of bioplastics

School: Jesus & Mary Secondary School
County: Sligo
Teacher: Fiona McLoughlin
Student(s): Róisie Egan, Ruth Foody, Anna Feeney

3532

Title: What makes a rocket fly straight? An investigation into the effect of stabilization on the flight path of a model rocket.

Overview: We are going to test the effect of wing orientation shape and number on the flight path of a model rocket.

School: De La Salle College
County: Cork
Teacher: Shannon Walsh
Student(s): Finn Yore, Simon Condon

3533

Title: Vertical-axis wind turbines: The new way to save energy.

Overview: Testing VAWTs will enable more households to consider them as a viable alternative for energy savings, complementing or providing an option alongside solar panels.

School: St Joseph's Secondary School Rush
County: Dublin
Teacher: Helen Teehan
Student(s): Leah Mullen, Emma Mullen

3534

Title: The impact of the school run on air quality

Overview: Our objective is to measure levels of Nitrogen Dioxide at pick-up times and make comparisons. An "Awareness Drive" to change the behaviour of parents.



School: Mount St Michael
County: Cork
Teacher: Alison O' Neill
Student(s): Daniel O'Mahony, Jamie Barton, Jan o Longphuirt

SENIOR GROUP

3600

Title: How does your cup a day chase the worms away?
Overview: Continuing our study investigating how the chemical coating on takeaway-cups affects our soil. We want to vocalise our solutions and decrease the use of takeaway-cups.
School: Coláiste Pobail Bheantraí
County: Cork
Teacher: Sharon Kingston
Student(s): Karis Vukajlovic, Alannah O Connor

3601

Title: Quantum Insights: Particle profiling via cloud chamber and AI analysis.
Overview: This project combines AI and cloud chambers to enhance particle detection and analysis from cosmic rays or radioactive decay.
School: Coláiste Chiaráin
County: Limerick
Teacher: Edel Farrell
Student(s): Emily Ceban, Maxim Olesovs

3602

Title: An investigation into the relationship between catch areas to the quantity of microplastics found in fish's gastrointestinal system.

Overview: We will investigate the relationship between catch areas to the quantity of microplastics found in fish's gastrointestinal system.

School: Castletroy College
County: Limerick
Teacher: Conor McGowan
Student(s): Orlaith Lynch, Luke McKeon

3603

Title: Using Spectrometry to detect, identify and reduce pollution in rural and urban areas.
Overview: Investigating the applications of spectrometry in identifying pollutants such as microplastics and heavy metals in the environment and how to remove these pollutants naturally.
School: Presentation Secondary School Listowel
County: Kerry
Teacher: Chris Kiely
Student(s): Cara Leahy, Ella Danagher

3604

Title: The impact of Nitrogen Dioxide and common Volatile Organic Compounds on ozone production: A comparative analysis under artificial and natural UV light.
Overview: We're investigating the effects of different Volatile Organic Compounds on NO2 production/concentration in the natural environment through conducting simulations under natural and artificial UV light.
School: Greystones Community College

County: Wicklow
Teacher: Rebecca Wray
Student(s): Adam Kopeck, Richie Johnson

3605

Title: How does the geological makeup of a region impact land use? An analysis of agricultural practices in the Kenmare hinterland
Overview: An investigation into how the geological bedrock of the Kenmare hinterland (sandstone and limestone) impacts the type and intensity of agricultural practice.
School: Pobalscoil Inbhear Scéine
County: Kerry
Teacher: Sarah Abbott
Student(s): Kate McGann, Lúsaí de Faoite

3607

Title: Analysing Temporal Variations in Quasar Flux: A Python-based approach to satellite and observatory images
Overview: A Python-based project simplifying quasar flux analysis by automating the extraction of data from large FITS files, revealing temporal variations and dynamic behaviour in quasars.
School: St Mary's Secondary School Mallow
County: Cork
Teacher: Rory Coote
Student(s): Sarah Stewart, Grace Goulding

3608

Title: Fractal Footprints: Mapping the mathematical patterns of cities
Overview: How do different types of fractals in city design affect

walkability, traffic and quality of life?

School: Mercy Secondary School Mounthawk
County: Kerry
Teacher: Eimear Nolan
Student(s): Kai Seino, Benedek Herold-Csorba

3609

Title: Investigating the reclaiming of lithium and other materials from used batteries (in vapes) Part II
Overview: Investigates ways to recycle Lithium, other materials and the products of the reactions of reclaiming the Lithium - Hydrogen and Heat energy from used vapes.
School: St Mary's College
County: Derry-Londonderry
Teacher: Ann Blanking MBE
Student(s): Rebecca Lewis, Lexie Melrose

3610

Title: Optimisation of movement in a school campus using Graph Theory.
Overview: We aspire to resolve the challenge of congested student movement within our school hallways
School: Ennistymon Community School
County: Clare
Teacher: Sean Murphy
Student(s): Caimin McGlennon, Ruby Crosse, John Sheridan

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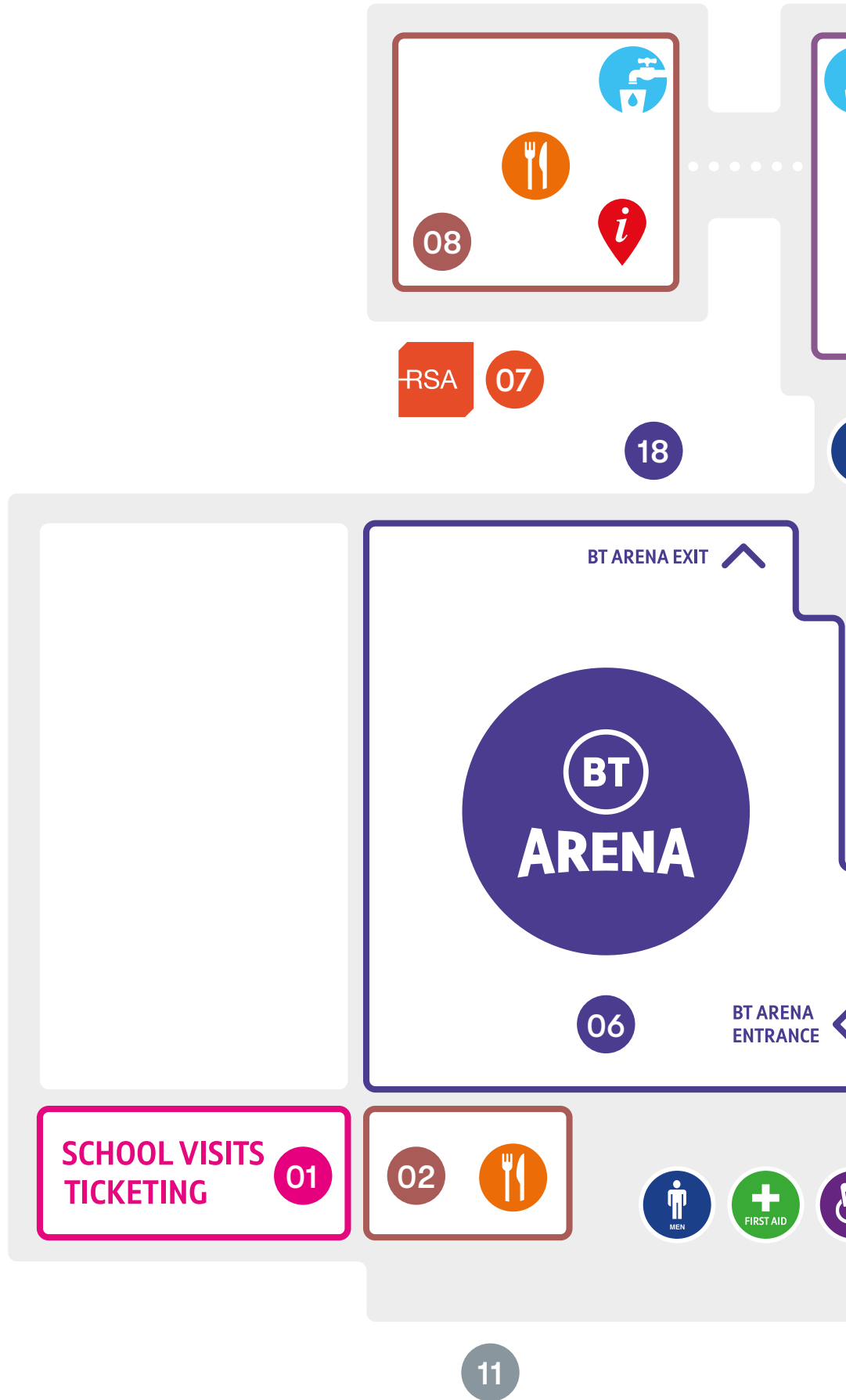
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MAP KEY

- 01 School visits ticketing
- 02 Coffee Bar
- 03 Information Desks
- 04 Organisers Office
- 05 Student Projects
- 06 BT Arena
 - Opening/Awards Ceremonies
 - Mark the Science Guy: Extreme Adventures
 - Sports Tech
 - Circus 250: What Stuff Does
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- 08 Food Court
- 09 Ring Bistro
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- 12 Packed lunch area
- 13 The Primary Science Fair
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- 16 Global Goals (Drumming Workshop) with Irish Aid - Clyde Room Foyer
- 17 Results video wall
- 18 Student stores





ENTRANCE TO EXHIBITION FROM MERRION ROAD

Sandymount Ave Dart Station

Lansdowne Road Dart Station

City centre

JUNIOR INDIVIDUAL

4100

Title: Watt Now?: A More Eco-Friendly Electrical Plug

Overview: Program and build a working model of a smart plug that reads CO2 intensity from Eirgrid and only operates at/below a user-specified setpoint.

School: Kinsale Community School
County: Cork

Teacher: Catherine Coughlan
Student(s): Charlotte Galvin

4102

Title: Gamifying a fun approach to recycling and litter collection

Overview: The aim of this game is to encourage people to collect litter and recycling by offering them virtual rewards.

School: Loreto Secondary School
County: Meath

Teacher: Jason McCabe
Student(s): Eliza Simhas

4103

Title: NeuroLingo: A mobile app for the self-management of stuttering

Overview: A mobile app that delivers an intervention for stuttering in classroom situations and for a better understanding of stuttering behaviour.

School: Greystones Community College
County: Wicklow

Teacher: Rebecca Wray
Student(s): Oisín Ward

4104

Title: Crouch- Bind- Set...PROTECT!

Overview: Developing a scrum cap for rugby players to reduce the force of impacts on the skull and alert coaches to traumatic force events.

School: Moate Community School
County: Westmeath

Teacher: Irene O'Sullivan
Student(s): Mollie Quinn

4105

Title: A system to test and develop low-cost heat storage materials

Overview: Raspberry Pi based automated system, to find and develop suitable low-cost heat storage material like recycled cooking oils or hydrated oils.

School: Athlone Community College
County: Westmeath

Teacher: Emma Buckley
Student(s): Thenuka Handurukande

4106

Title: AI recognition: AI Recognition: A study of how well humans can identify Artificial Intelligence-generated images

Overview: This project looks into how well human beings can identify AI-generated images.

School: Loreto College Foxrock
County: Dublin

Teacher: Eimear Hourican
Student(s): Grace Carty

4107

Title: What shape of rotors are best for wind generation?

Overview: To see if we can improve on the design of wind turbines and see if I can make them more efficient.

School: St. Brogan's College, Bandon
County: Cork

Teacher: Michael Connern
Student(s): Cianan Gill-Emerson

4108

Title: FutureDev

Overview: An AI powered app that gives you a detailed roadmap of anything you want to learn

School: St Patrick's Classical School
County: Meath

Teacher: Gareth Mc Mahon
Student(s): Rohaan Bhatnagar

INTERMEDIATE INDIVIDUAL

4200

Title: Trialacha Cailleach Salem: Anailís ar thréithe teanga na mifhaisnéise a ghineann AI.

The Salem Witch Trials: An analysis of the linguistic characteristics of AI-generated misinformation.

Overview: An féidir le AI ainilís a dhéanamh ar "phóstáil" Instagram AI-ghiniúnaithe a cruthaíodh ag úsáid saintréithí idirdhealaithé, agus cosúlachtaí agus difríochtaí a aimsiú eatarthu? Can AI analyse and detect similarities and differences between AI-generated Instagram "posts" that were created using differentiated characteristics?

School: Gaelcholáiste Mhaigh Nuad
County: Kildare

Teacher: Maria Ní Ghóillidhe
Student(s): Aoibhinn Ní Chonnalláin

4201

Title: THOR: Lightning Detection & Alert System

Overview: A DIY system for alerting people of lightning and other weather events.

School: Pobalscoil Inbhear Scéine
County: Kerry

Teacher: Sarah Abbott
Student(s): Eoghan Ó Bogail

4202

Title: CAS - A wearable capsized alert system

Overview: I have developed a sensor that makes radio contact with the pontoon in the event of capsizing to signal that rowers are in the water.

School: Abbey Vocational School
County: Donegal

Teacher: Donna Furey
Student(s): Harry Davies

4203

Title: Real-Time Intrusion Detection and Firewall Control System Using Python for Automated Network Security

Overview: This project aims to develop a robust, real-time intrusion detection and response system using Python, capable of detecting and automatically blocking potential network hackers.

School: Gonzaga College
County: Dublin

Teacher: Evelyn Kane
Student(s): Yiming Heng

4204

Title: The Smart Sole: Using hybrid AI analysis to inform patients on foot pressure anomalies for peripheral neuropathy

Overview: Smart Sole aims to reduce the complications of peripheral neuropathy, by informing patients on foot pressure anomalies, from neural network and isolation forest dataset analysis.

School: Castleknock College
County: Dublin

Teacher: Jim McElroy
Student(s): Basil Amin

4205

Title: Victorious 2048 - a recreation of the game 2048

Overview: To recreate and modify the game 2048 using Python.

School: St. Anne's Secondary School
County: Tipperary

Teacher: Patrick Kivlehan
Student(s): Viktoriia Sanzhapova

4206

Title: Wrist Wellness: Pressure Alert System

Overview: To create a hand worn device to measure the pressure put on the hand and wrist to assist with rehabilitation from injury.

School: St Marys College Arklow
County: Wicklow

Teacher: Joanne English
Student(s): Kirsty Weldon

4207

Title: B6-Watch: An AI powered monitoring system for cows

Overview: My project is an AI powered monitoring system for farmers that will detect illness and diseases in cattle based on their

behaviour and activity

School: Coláiste Chiaráin

County: Limerick

Teacher: Olwyn Mc Inerney
Student(s): Sarah Hurley

4208

Title: Enhancing Data Security in AI Training using Zero-Knowledge Proofs for Secure Methodology Development.

Overview: Developing an algorithm implementing Zero-Knowledge Proofs and encryption into AI models to securely train on data, without exposing raw sensitive information while training.

School: Celbridge Community School
County: Kildare

Teacher: Zita Ann Murphy
Student(s): Addison Carey

4209

Title: Iníúchadh ar inmhharthanacht íomhánna sinteiseacha I aimsiú poill boithre I aimsir Eireannach. Exploring the viability of synthetic images to improve pothole detection in adverse conditions.

Overview: Níl claránna aimsiú readá tradisiúnta oiriúnach do aimsir le Éire, tá ma tionscadal ag iarraidh feabhas a chur le so ag usaid aistriúchán íomhá GANs. Traditional object detection models aren't well suited to Ireland's temperate climate, my project explores the use of image translation based GANs to solve this problem.

School: Gaelcholáiste Charraig Uí Leighin
County: Cork

Teacher: Seán O Finn
Student(s): Cian Spillane

4210

Title: How to develop the most sustainable planetary rover for Mars.

Overview: To develop a rover prototype for the planet Mars. I want to include artificial intelligence and a sustainable design for it.

School: Loreto College
County: Westmeath

Teacher: Stephen McGroggan
Student(s): Katelyn Dunne

4211

Title: Mould Metro: Redesigning Ireland's rail network using slime mould.

Overview: Creating a physarum polycephalum simulator with c# to design a more efficient rail network through Ireland.

School: Loreto High School
County: Dublin

Teacher: Grainne Ryan
Student(s): Keelin O'Donovan

4212

Title: 'Apollo' - A novel network anomaly detection system using AI
Overview: I aim to create a network intrusion detection system that will utilize artificial intelligence to concisely alert the network administrator of incoming threats.
School: Scoil Mhuire
County: Roscommon
Teacher: Mairead Glynn
Student(s): Ryan Casey

4213

Title: Enhancing the reliability and accuracy of the UV index formula through machine learning and classification algorithms
Overview: Using ML and classification algorithms to improve accuracy of the UV formula by accounting cloud types from satellite images and comparing to original index readings
School: St Joseph's Secondary School Rush
County: Dublin
Teacher: Daniel Murray
Student(s): Éabha McBride

4214

Title: SYNAPSE: A model for reading the human mind through electroencephalogram scans
Overview: SYNAPSE is a model that analyzes EEG (electroencephalogram) scans recorded while a subject looks at an image and predicts what they are looking at.
School: St Marys College
County: Dublin
Teacher: Liam Brennan
Student(s): Rian Ó Donnell

4215

Title: Can solar-powered vehicles power the way to a greener future?
Overview: I aim to construct a model car to simulate solar-powered vehicles and assess its performance in different conditions.
School: St Andrews College
County: Dublin
Teacher: Laura Brogan
Student(s): Elijah Preston

4216

Title: AI journey through Catan
Overview: AI that is programmed to learn the optimal strategy for winning the strategy board game Catan
School: Coláiste Phádraig CBS
County: Dublin
Teacher: Kevin Carey
Student(s): Leo Jordan

4217

Title: The development of a nasogastric tube to determine

correct positioning by way of a colour change
Overview: My project is to develop a novel nasogastric tube that shows correct placement by way of a colour change
School: Coláiste Iognáid S.J.
County: Galway
Teacher: Daniela Donghi
Student(s): Jack Barry

4218

Title: Talamh Dubh: A charcoal retort for use in the home
Overview: I have a plan to upgrade a charcoal retort into a more efficient retort with a longer life-span.
School: St Patrick's College
County: Cavan
Teacher: Bronte Fitzmaurie
Student(s): Peter Flynn

4219

Title: ImiCircle
Overview: ImiCircle is an app to help immigrants connect with people from their home country and find supportive places for their new experiences.
School: Coláiste Nano Nagle
County: Limerick
Teacher: Samantha Prior
Student(s): Alice Babilon Borges

SENIOR INDIVIDUAL

4300

Title: CAPILL: Compliance Aid Promoting Independent Living Long-term
Overview: The aim of my project is to design and build a medicine compliance aid for people with reduced hand mobility, to improve medicine compliance.
School: Lanesboro Community College
County: Longford
Teacher: Mary O'Brien
Student(s): Ronan Lyons

4301

Title: Development of a novel nano-QSAR model to predict drug delivery of nanoparticles to the brain.
Overview: Applying machine learning to predict and optimise nanoparticle permeation through the blood-brain barrier for improved drug delivery in central nervous system disorders.
School: St. Mary's C.B.S.
County: Laois
Teacher: Danielle Broomfield
Student(s): Joshua Corbett

4302

Title: Developing a Machine Learning Model for the diagnosis of knee osteoarthritis
Overview: This project develops a

machine learning model which aids in the diagnosis of osteoarthritis.
School: Coláiste Phádraig CBS
County: Dublin
Teacher: Kevin Carey
Student(s): Hazem Ahmed

4303

Title: A novel approach to empowering communication with F.A.Y. - A unified system for individuals with speech disabilities.
Overview: An app integrated with an eye-controlled keyboard, real-time sign language translation via camera feed and a flex-sensor glove, offering diverse integrated communication methods for users.
School: St. Patrick's College
County: Mayo
Teacher: Paula Bolton
Student(s): Aadila Aliu Iyamah

4304

Title: A Comprehensive Predictive Diagnostic System for Radiology
Overview: A multi-organ, multi-modal and multi-disease program to predict diagnosis of radiological scans using neural networks.
School: Kinsale Community School
County: Cork
Teacher: Shaun Holly
Student(s): Ronan Hawkins

4305

Title: It's Spreading Time: Are GPS fertiliser spreaders really more economical and environmentally friendly than their cheaper counterparts?
Overview: Financially and environmentally comparing GPS section control fertiliser spreaders to ordinary spreaders to deduce their relative effectiveness.
School: Cistercian College Roscrea
County: Tipperary
Teacher: Jennifer Denny
Student(s): James Hyland

4306

Title: A Novel Approach to Designing a Cost-Effective and Low-Power Intraoral Scanner for Modern-Day Dentistry
Overview: I aim to design an intraoral scanner with a custom PCB, using photogrammetry to map the mouth's topography and generate a dynamic 3D model.
School: St Joseph's Secondary School Rush
County: Dublin
Teacher: Daniel Murray
Student(s): Kamaya Gogna

4307

Title: PM-DAC: A system for removing CO2 from the atmosphere
Overview: PM-DAC is a Passive & Modular Direct Air Capture

framework that reduces the cost of carbon dioxide sequestration in our fight against climate change
School: St. Brogan's College, Bandon
County: Cork
Teacher: Michael Connern
Student(s): Tomás Markey

4308

Title: Using machine learning for non-invasive neural semantic decoding
Overview: Using modern machine learning to understand the way concepts are represented in the brain allowing us to decode brain scans into semantic ideas.
School: The Institute of Education
County: Dublin
Teacher: Catriona Hendry
Student(s): Shaunak Mohapatra

4309

Title: Identifying AI Speech: The future of cybersecurity with ZypHAI
Overview: Creating an AI that is capable of detecting AI generated voices and making that AI accessible to the general population
School: Coláiste Chiaráin
County: Limerick
Teacher: Edel Farrell
Student(s): Luke Walsh

4310

Title: HemaSense - Screens for anaemia, blood conditions without needle sticks.
Overview: Noninvasive blood screening of hemoglobin using smartphone cameras.
School: Bruce College
County: Cork
Teacher: Labhras White
Student(s): Anas Syed Muhammad

4311

Title: The high lift
Overview: Modular electric crane for loading and unloading vans and also working off scaffolding with a patent pending design.
School: St Patrick's Classical School
County: Meath
Teacher: Gareth Mc Mahon
Student(s): Seán Finnegan

4312

Title: Energy Crisis? - Let me help you! - A novel solar desalination method to extract clean water, fertilizer and biochar from our coastal resources
Overview: My project uses an adapted desalination plant to extract nutrient fertilizer, fresh water and Biochar leaving no waste products behind, and producing sustainable energy.

School: Ursuline College
County: Sligo
Teacher: Anthony Carolan
Student(s): Amber Mc Donald

4313

Title: SecureX
Overview: My project aims to create a safer verification and authentication method through code to fit the computer systems for GenAI and to avoid computer breaches.

School: St David's Holy Faith Secondary

County: Wicklow

Teacher: Garry Lynch

Student(s): Shriya Mishra

4314

Title: The NRG-Guard: The modified mouthguard that releases sport solutions using a slow release mechanism.

Overview: Designing a new mouthguard that can house a dextrose tablet, to boost an athlete's energy levels while participating in contact sports.

School: Patrician High School

County: Monaghan

Teacher: Ciara Brosnan

Student(s): Cian Rafferty

JUNIOR GROUP

4400

Title: Languages Easier!
Overview: Using HTML and Python to create a custom language quiz app.

School: Coláiste Phádraig CBS

County: Dublin

Teacher: Jacqueline Farrell

Student(s): Sabeeh Farhan, Nusayer Mahmud

4401

Title: Bright Minds App; A Brighter way for Children to Learn!

Overview: For children, learning shouldn't be a tedious chore. Thanks to our software, they should be able to learn in a motivating, stimulating and fun way.

School: Christ King Girls' Secondary School

County: Cork

Teacher: Vicky Bouché

Student(s): Lena Ogonowska, Kristin Cahill, Ritika Sam

4402

Title: Anailís ar ghrianghrafadóireacht analógach agus digiteach. An analysis of analog and digital photography

Overview: Comparáid idir grianghrafadóireacht analógach agus dhigiteach, trí scrúdú a dhéanamh ar thairfeach, raon dinimiciúil, agus dath, cuirtear béim ar uileláithreachacht fhísic an

tsolais agus ceimic. Comparing analog and digital photography, by examining resolution, dynamic range, and colour underscores the omnipresence of the physics of light and chemistry in everyday technologies.

School: Coláiste An Phiaraisigh

County: Cork

Teacher: Clíodhna Cotter

Student(s): Donnchadh Ó Cuilleánáin, Vincent Mac Carthaigh

4403

Title: InstaVape: Ensuring Safe Vaping with Instant, On-the-Go Substance Detection

Overview: Our project examines the development of a portable device that uses chemical sensors to instantly detect harmful substances in vape liquids, enhancing user safety.

School: St Joseph's Community College

County: Clare

Teacher: Laura Egan

Student(s): Mae Burns, Noah Hanrahan, Orla Connolly

4404

Title: Development and evaluation of a wearable distress detection and response system for open water swimmers.

Overview: A wearable device detects swimmer distress, inflates a lifejacket, tracks location via GPS, and sends emergency alerts using sensors and GSM in a waterproof casing.

School: St Mary's Secondary School Mallow

County: Cork

Teacher: Rory Coote

Student(s): Delilah Afriyie, Layla O'Connor, Doireann Dempsey

4405

Title: Red Alert - Creating a deterrent to drivers breaking red lights.

Overview: Creation of an automated system for deterring motorists from breaking red lights by capturing and sending offenders number plates to Gardaí.

School: Coláiste Pobail Osraí

County: Kilkenny

Teacher: Elaine Nic Reamoinn

Student(s): Muireann Greene, Annabel Campion, Faye De Breit

4406

Title: AI-trained camera to detect dogs and other quadrupedal animals in public places

Overview: This project plans to solve the issue of animals invading public buildings that use automatic doors.

School: Davis College

County: Cork
Teacher: Frank Murphy
Student(s): Logan Thomas Walsh, Adam McCarthy

INTERMEDIATE GROUP

4500

Title: An Artist's Invaluable Tool: Coding a tool to generate mutualistic colours.

Overview: We plan to create a tool (using HTML and JavaScript) to generate colour codes that match well with one or two colours entered into the system.

School: Blackrock College

County: Dublin

Teacher: Aoibh Steele

Student(s): Seán Mullane, Rory Staunton

4501

Title: Dickens vs. Skynet: How Large is an LLM?

Overview: An investigation into the word usage of large language models and how it compares with human writers.

School: Ashbourne Community School

County: Meath

Teacher: Linda Ward

Student(s): Adam McMahon, Alexander Douglas

4502

Title: 'Sheep Strength': Using wool to reinforce concrete

Overview: Testing the feasibility of mixing different types of sheep wool with concrete as a more sustainable strengthening agent instead of polypropylene.

School: Ursuline College

County: Sligo

Teacher: Anthony Carolan

Student(s): Aoife Fadian, Jessica O'Connor

4503

Title: P.A.T: A Prescription Administration Technology

Overview: We've created a robot whose job is to dispense a patient's prescription at a certain time, and sound an alarm when pills are being dispensed

School: Borriskane Community College

County: Tipperary

Teacher: Rachel Ahern

Student(s): Kate Muehlhausen, Lily O'Neill, Clara Slattery

4504

Title: Ro-Bee: An Assistive Technology to Support Bee Pollination.

Overview: The bee population is declining due to Climate Change. We are developing intelligent robots that will support the pollination process.

School: St Aloysius School
County: Cork
Teacher: Sheila Flynn
Student(s): Orla Murphy, Sara Mniszek

4505

Title: The Mould Busters
Overview: Mould is a "Silent Killer" producing toxic spores. Our Mould Buster device is an early warning system to alert homeowners to this hidden threat.

School: Our Lady's Bower

County: Westmeath

Teacher: Karina Jones

Student(s): AnnaMarie Mullan, Bláthín Moran, Aideen Derwin

4506

Title: Bridging the Colour Gap

Overview: Our project is to create an app to help people with colour blindness identify colour, and allow people to see how animals see colours differently.

School: Our Ladys School

County: Dublin

Teacher: Niamh Crowley

Student(s): Aoife O Connor, Constance Harte

4507

Title: Affordable Prosthetic Arm

Overview: This project aims to aid individuals who have lost an arm, by using technology to produce a cost effective and person centred device.

School: Kilkenny College

County: Kilkenny

Teacher: Michael Lawlor

Student(s): Alan Meinderink, Danny Beirne-Bowden

4508

Title: Buzz - Your Enterprise Trigger Word Deterrent

Overview: A program that identifies and logs trigger words spoken across business calls, and timestamps and catalogs them for future review.

School: Stratford College

County: Dublin

Teacher: Helen O'Kelly

Student(s): Ciara Daly, Callum Farrell

4509

Title: Barriers to protect against fluvial flooding

Overview: A barrier to prevent flooding by being both compact and cheap to produce, while being more effective from the sandbag.

School: Coláiste Chiaráin

County: Limerick

Teacher: Paul Leacy

Student(s): Jakub Makowiecki, Daniel Grosche

4510

Title: Illuminating The Future Using LIFI

Overview: How can LIFI decrease the risks of hacks and how is it an upgrade from WiFi?

School: Athlone Community College

County: Westmeath

Teacher: Laura Donnellan

Student(s): Mustapha Shitakha, Yuvraj Saini

4511

Title: Re-Engineering Vertical Axis Wind Turbines and testing viability in urban use.

Overview: Re-engineering vertical axis wind turbines blades designed to smaller spaces akin to urban areas and suitable for Irish weather.

School: St Josephs College

County: Tipperary

Teacher: Mary Gorey

Student(s): Jack McCormack, Conor McGrath

4512

Title: Generating power by harnessing swells close to the seashore.

Overview: We aim to build 'Swellerator,' a device which will provide a new means of harvesting renewable energy off the coast to combat Ireland's energy crisis

School: Moate Community School

County: Westmeath

Teacher: Mairead Cusack

Student(s): Fionn Murphy, Gavin Quilty

4513

Title: Can electrolysis be used to create a more sustainably charged car?

Overview: For our project, we are investigating if electrolysis can be used to power a car and therefore make transportation in our environment more sustainable.

School: Firhouse Educate Together Secondary School

County: Dublin

Teacher: Nicole Geissel

Student(s): Sarah Moody Minto, Isabelle Delaney

4514

Title: Feel the Way

Overview: A device that helps visually impaired people navigate our streets by sending vibrations to the hand when there is something obstructing the way.

School: St. Joseph's Secondary School, Navan

County: Meath

Teacher: Bronagh Farrell

Student(s): Caroline Asiruvatham, Niamh Bonallie

4516

Title: Bull Bound: Bull proximity control and alert safety

Overview: To create a system that uses proximity sensors to alert a farmer if a bull comes within a certain distance of the farmer.

School: St Josephs College

County: Tipperary

Teacher: Mary Gorey

Student(s): Saoirse Ryan, Anna Lee, Niamh Kennedy

4517

Title: MarkEd: A way to stop AI watermark removers

Overview: A way to stop Artificial Intelligence watermark removers and keep ownership of our works, by creating a more effective watermark ensuring your copyright is respected.

School: Loreto College The Green

County: Dublin

Teacher: Katie Kinkaid

Student(s): Katie Zheng, Elisha Zhu

4518

Title: Machine Learning-powered intruder detection system in the context of our Medical Appointment Computing System Software.

Overview: Creating a next-level intruder detection system powered by machine learning, to protect the data of our Medical Appointment Computing System Software in an AI-controlled world

School: St Andrews College

County: Dublin

Teacher: Laura Brogan

Student(s): Max Grogan, Finn O Donnell

4519

Title: Leftover AI: Intelligent Recipes from your Fridge

Overview: To reduce the problem of food waste in Ireland, we have created a website that will hopefully limit the amount of food thrown out.

School: St Joseph's Secondary School Rush

County: Dublin

Teacher: Daniel Murray

Student(s): Felicity McGuinness, Layla Nolan, Emma Mckeown

4520

Title: Chess for beginners

Overview: Beginners learn how to play chess by showing them where the pieces move

School: Inver College

County: Monaghan

Teacher: Rebecca Beirne

Student(s): Liam Summers, Jack Callan, Calvin Smith

4521

Title: Can Artificial Intelligence detect if a person is lying?

Overview: Learning how to detect if a person is lying or not & using AI to detect this.

School: Le Chéile Secondary School

County: Dublin

Teacher: Shauna Lyons

Student(s): Ryan Clarke, Mahad Rahman

4522

Title: Visualise It! An interactive teaching tool

Overview: To develop an interactive app that helps students learn human anatomy effectively through 3D models enhancing student engagement and retention.

School: Scoil Pól

County: Limerick

Teacher: Claire Bermingham

Student(s): Zita Régert, Ciara Mulcahy, Doireann Walsh

4523

Title: Serene Studies! An investigation into a new and efficient way of education for students with sensory issues in mainstream classes.

Overview: The aim is to help students with sensory issues by using noise-cancelling headphones and a clip-on microphone so background noise separates from the teacher's voice.

School: Virginia College

County: Cavan

Teacher: Kelly Ryan

Student(s): Anastassia Taylor, Aoife Kearney

4524

Title: An Domhan Glas - Aip a Chabhraíonn le Daoine a n-Astáiochtai Charbóin a Laghdú. The Green World - An App That Helps People Reduce Their Carbon Emissions.

Overview: Tá seo aip atá cruthaithe againn chun cabhraigh le daoine chun a bheith níos amhrasach faoin a dtionchar ar an timpeallacht. This is an app that we have created to help people be more aware about their negative effect on the environment.

School: Gaelcholáiste Mhaigh Nuad

County: Kildare

Teacher: Maria Ní Ghóillidhe

Student(s): Caellainn De Bardúin, Ruth Ní Mhurchú

4525

Title: Solar brilliance: Powering tomorrow with the sun

Overview: We will replace standard slate, felt and timber roofs with just a watertight solar

panel roofing system. The roofing system is designed for sheds.

School: Mount St Michael

County: Cork

Teacher: Alan O' Rourke

Student(s): Oran O'Donovan, Joe Mc Carthy, Cathal O Loughlin

4526

Title: An investigation into the discrepancies of artificial intelligence in determining car insurance premiums based on postcode.

Overview: We will be applying for 344 car insurance quotes with companies that use AI to find discrepancies in premiums based on postcode.

School: Coláiste Choilm

County: Cork

Teacher: Karina Lyne

Student(s): Finn O Sullivan, Konradas Vaidogas, Tiarnán O Callaghan

4527

Title: Solar-Powered Gutter Cleaner

Overview: A solar powered vehicle that will travel across gutters and clean them throughout the year.

School: Coláiste Sheosaimh

County: Galway

Teacher: Cathal Reilly

Student(s): Luke Bookless, Brian Fitzpatrick

4528

Title: Investigating the merits of MagLev technology as a form of suspension in vehicles

Overview: We will be investigating the viability and application of MagLev (Magnetic Levitation) technology as a more efficient suspension system in vehicles.

School: Gonzaga College

County: Dublin

Teacher: Evelyn Kane

Student(s): Leo Estevez Neill, Oliver Cooney

4529

Title: SmartSpecs

Overview: We are creating a device that can assist people, particularly with mental disabilities. It has text recognition and can identify Lámh and relay the translation.

School: Coláiste Chiaráin

County: Limerick

Teacher: Paul Leacy

Student(s): Matthew Furlong, Liam Power, Patrick Hogan

4530

Title: 'Verdura', An AI-powered organic fertilizer recommendation scheme that supports sustainable farming

Overview: Verdura is an AI app

that uses real-time soil sensor data and weather conditions to provide personalized organic fertilizer recommendations, optimizing crop-efficiency and reducing waste
School: Árdcoil Uí Urmoltaigh
County: Cork
Teacher: Paul Bouchier
Student(s): Loughlin O'Donnell, Sean O'Riordan

SENIOR GROUP

4600

Title: SettleEase: Empowering Immigrants to Thrive
Overview: Our project involves an application to help immigrants, empowering them with the information, resources, and support they need to navigate life in a new country
School: Coláiste Nano Nagle
County: Limerick
Teacher: Samantha Prior
Student(s): Sara dos Santos Lemos, Danijela Muzdeka

4601

Title: Smog Sucks!
Overview: Reducing particulate matter from solid fuel burning in stoves and open fires by placing a filter on top of a chimney pot.
School: St John Bosco Community College
County: Clare
Teacher: Eanna Collins
Student(s): Michelle Shannon, Adam Hehir

4602

Title: SmartMart
Overview: We have created a website that maps various shop layouts to make the visit to the shop more accessible.
School: Breifne College
County: Cavan
Teacher: Kerri-Ann Thornton
Student(s): Diego Laricchio, Andrew Agnew, Noah Murphy

4603

Title: Ellie The Mobility and Care Assister
Overview: A prototype electro-mechanical device that is designed to assist people with mobility.
School: CBS The Green
County: Kerry
Teacher: Máire Fitzgerald
Student(s): Jaidon Ward Barrett, Tomasz Bober, Rian Curtin

4604

Title: AI Control of Robots using Reinforcement Learning Algorithms
Overview: We are researching reinforcement learning algorithms to control robots. Then we will write our own algorithms in Python and download the code to a robot
School: Ennistymon Community School
County: Clare
Teacher: Sean Murphy
Student(s): Paddy Lawless, Sean Ahern

4605

Title: Smart Embedded Clothing for the Visually Impaired
Overview: Designing a jacket with embedded sensors that detect obstacles for the visually impaired. Utilises smart sensor feedback with appropriate actuation i.e. vibration sensors.
School: Davis College
County: Cork
Teacher: Frank Murphy
Student(s): Rebecca McCarthy, Alisha Akinola

4606

Title: IndependentMe: An at home healthcare device to support independent living for people suffering from memory impairment.
Overview: Our device combines familial vocal reminders and health testing equipment customised to support independent living whilst also alerting family members to any issues.
School: Mungret Community College
County: Limerick
Teacher: Christine Carew
Student(s): Eoghan Hinchy, Abbie O' Connor, Lily O'Callaghan

4607

Title: Enhancing adaptive learning in AI through tactile feedback in dynamic environments
Overview: Developing a humanoid AI with tactile feedback to enhance adaptability and learning in

dynamic environments through physical interactions and failure based learning.
School: The Institute of Education
County: Dublin
Teacher: Catriona Hendry
Student(s): Conor O'Neill, Alexander Vysotski

4608

Title: Multimedia Content Analysis using Python: Brightness, Sound and Colour Extraction
Overview: A Python-based tool analysing video brightness, sound, and colour, providing real-time insights for multimedia quality control, film study, and content creation applications.
School: Presentation College Headford
County: Galway
Teacher: John Toner
Student(s): Johnathan McPhilbin, Conn Naughton

4609

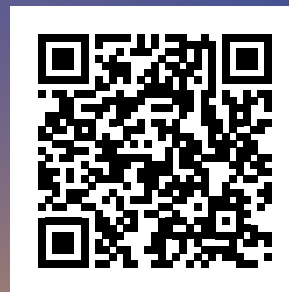
Title: Virtual Reality Glove: A cheap alternative to immersion in VR
Overview: A DIY, budget-friendly VR glove providing a cost-effective alternative to expensive controllers, enhancing accessibility and immersive experiences in virtual reality for everyone.
School: Coláiste Mhuire,
County: Westmeath
Teacher: Eva Acton
Student(s): John Bernard Basañes, Nikita Bickovs



STEM

INSPIRATIONS

FROM THE BT YOUNG SCIENTIST & TECHNOLOGY EXHIBITION



PODCAST SERIES FROM THE BT YOUNG SCIENTIST & TECHNOLOGY EXHIBITION

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JUNIOR INDIVIDUAL

5100

Title: Methane Busters: Harnessing tannins and feed additives to clean up slurry tank emissions.

Overview: Using a dual approach to reduce methane emissions from the Irish bovine herd by targeting methanogenic microorganisms in the rumen and slurry tank.

School: Moate Community School

County: Westmeath

Teacher: Irene O'Sullivan

Student(s): Lucy Carroll

5101

Title: The differential impact of climate change in regions of Ireland

Overview: The media states that global warming is occurring, but are different sites in Ireland affected the same way? This project aims to address this question.

School: St David's Holy Faith Secondary

County: Wicklow

Teacher: Mrs Monika Ui Annaidh

Student(s): Isabel Deane-Jeremi

5102

Title: How efficient is electricity generation from vegetation?

Overview: This project tests the potential that plants and microorganisms can generate electricity through their natural processes and environment.

School: Castleknock College

County: Dublin

Teacher: Jeanne de Toulgoet

Student(s): Shankar Bellamkonda

5103

Title: Wild(Mix) Attraction:

Uncovering pollinator preferences in wildflower mixes.

Overview: This project investigates how physical flower traits from various wildflower mixes influence pollinator attraction, analysing colour, shape, size, and nectar sugar content.

School: St Bricin's College

County: Cavan

Teacher: Daryl Dunne

Student(s): Eoin Slattery

5104

Title: Root Rivalry: Do heritage seeds outgrow their modern competition?

Overview: Investigating if there is a difference in the root growth between two plants, one grown from heritage seeds and the other from modern seeds

School: Loreto Secondary School Balbriggan

County: Dublin

Teacher: Shauna Walsh

Student(s): Annabel Hackett

INTERMEDIATE INDIVIDUAL

5200

Title: Investigating Mycelium Electrical Signals: Developing a digital interface and exploring applications of fungal networks as biohybrid sensors.

Overview: Developing a biohybrid sensor through the amplification and digital to analog conversion of electrical signals produced by stimulated mycelial networks and investigation into the applications.

School: Coláiste Choilm

County: Cork

Teacher: Paudie Scanlon

Student(s): David Hamilton

5201

Title: The changes in vocal ability during a menstrual cycle

Overview: I plan on measuring just how much a female menstrual cycle affects your vocal ability/range. This is because I have noticed a change in myself.

School: Bush Post Primary School

County: Louth

Teacher: Sharon Boyle

Student(s): Aobha-Jane

5202

Title: 'Crisis Crunch': A healthier and sustainable alternative for emergency relief.

Overview: This project offers a sustainable, cost-effective food source for emergency relief by fortifying biscuits with dehydrated fruit and vegetable peels, enhancing nutrition in affected areas.

School: Coláiste Choilm

County: Cork

Teacher: Karina Lyne

Student(s): Dania Ahmad

5203

Title: The impact of diet interventions on 2km rowing performance.

Overview: Rowers often face challenges maintaining optimal performance, and diet plays a crucial role. This project aims to investigate the impact of specific dietary modifications.

School: Loreto Secondary School

County: Cork

Teacher: Ciara Motherway

Student(s): Freya Lysaght

5204

Title: A novel approach to regenerative agriculture through the use of Comfrey as a sustainable soil enhancer.

Overview: A comprehensive investigation into the use of Comfrey, a sustainable biological soil enhancer, as an alternative to artificial fertilisers in agriculture.

School: C.B.S. Thurles

County: Tipperary

Teacher: Danielle Slattery

Student(s): Luke Blackwell

5205

Title: Fashion over Function: Do Polo Wraps cause more harm than good?

Overview: To see if the wearing of Polo Wraps affect the temperature of horses front legs applying my findings to the effect on horses' tendons.

School: Mary Immaculate Secondary School

County: Clare

Teacher: John Sims

Student(s): Katie O'Kane

5206

Title: River Creature Crisis

Overview: Surveying a freshwater river for macroinvertebrates, nitrates and nitrites, pH and temperature, while finding the endangered species the European Freshwater Eel during testing.

School: St Colman's Community College

County: Cork

Teacher: Aidan Noone

Student(s): Eanna Patrick Maguire

5207

Title: Are environmentally friendly fertilisers a viable alternative: comparing the impact of different fertilisers on crop yield

Overview: The aim of this project is to investigate the effectiveness of various fertilisers on crop yield and comparing those with lower environmental impact.

School: Woodbrook College

County: Wicklow

Teacher: Shauna Smyth

Student(s): Elodie O'Brien

5208

Title: Biofluorescence as renewable light energy through the form of Cacti.

Overview: This project is connected to the one I did last year on biofluorescence. I worked in the summer, expanding it and finding real life uses.

School: Loreto College Swords

County: Dublin

Teacher: Niamh Kilcawley

Student(s): Esha Sibi Mathew

5209

Title: Vapes - Quantifying damage on developing systems (experimental approach)

Overview: Experiment to empirically explore the damage caused by vape juice ("Vape") to developing plant, animal & fungal systems.

School: Christian Brothers College

County: Cork

Teacher: Vicki Hennessy

Student(s): Max Power

5210

Title: Ridiculing RICE - Producing a proper protocol for acute soft tissue injuries

Overview: My project aims to investigate whether the current protocol widely used for acute soft tissue injuries (RICE) is best practice.

School: Mount St Michael

County: Cork

Teacher: Alan O' Rourke

Student(s): Chloe Cantillon

5211

Title: Rush To Renewable: An investigation into the biofuel potential from invasive farmland weeds such as rush and dock leaves

Overview: This project investigates the production of bioethanol from fermenting docks and rushes with the aim of producing biofuel as a renewable source of energy.

School: Coláiste Treasa

County: Cork

Teacher: Brid Anne O'Donoghue

Student(s): Jack Rahilly

5212

Title: The role of radiomics and machine learning approaches to revolutionise modern-day Alzheimer's screening.

Overview: This project aims to revolutionize Alzheimer's screening using radiomics and machine learning to identify early, imperceptible features, enhancing early detection and preventive care strategies.

School: Mount Mercy College

County: Cork

Teacher: Farah Shaladan

Student(s): Raisa Rukhsara

5213

Title: Is manual removal effective as a method of invasive species control in amphibians

Overview: This project aims to use manual removal to tackle an invasive species problem in a native Irish habitat.

School: The Institute of Education

County: Dublin

Teacher: Catriona Hendry

Student(s): Mia Gandola

5214

Title: Yummy, yummy! Uh Oh! Microplastics in my Tummy...

Overview: My project aims to investigate if different food preparation techniques such as chopping, mixing, and blending can introduce microplastics into food.

School: Presentation Secondary School Listowel
County: Kerry
Teacher: Jessica Keane
Student(s): Grace Foley

5215

Title: Forever farming - Sustainable Pest Control
Overview: During this project, I plan to investigate if there is an alternative to using harsh chemically based pesticides in treating flies on cows.
School: Meán Scoil an Chlochair
County: Westmeath
Teacher: William Lynn
Student(s): Emily O'Brien

5216

Title: Are dogwhelks (*Nucella lapillus*) selective about the size of their prey (*Mytilus edulis*)?
Overview: An investigation into whether dogwhelks (*Nucella lapillus*) are selective about the size of the mussels (*Mytilus edulis*) that they prey on.
School: Mary Immaculate Secondary School
County: Clare
Teacher: John Sims
Student(s): Grace Whelan

5217

Title: Little Worms In Fish: An investigation into fish parasites
Overview: This project examines the parasite *Anisakis* in Irish fish. Investigating how its increasing prevalence, which effects they have on consumers, and methods for eliminating them.
School: Coláiste Muire Crosshaven
County: Cork
Teacher: Bridget Lehane
Student(s): Julia Llovet Sanchez

5218

Title: Project *Triangulatus*: The role of native predators in managing flatworm invasions.
Overview: Investigating a solution to the increasing population of invasive flatworm species through native predatory insects
School: St Joseph's Secondary School Rush
County: Dublin
Teacher: Kevin Delahunty
Student(s): Martha Feely

5219

Title: Is the teabag method a more sustainable way of water testing?
Overview: I am looking to see if I can find a more sustainable method for obtaining the trophic level of lakes - Tea bag method
School: Mary Immaculate Secondary School
County: Clare
Teacher: Nicole Downes

Student(s): Michaela Kelly
5220
Title: Investigating the effect of light and temperature on the bleaching of *Corallina officinalis*
Overview: Investigating the effects of different temperatures and light intensity on the bleaching of *Corallina officinalis*.

School: Mary Immaculate Secondary School
County: Clare
Teacher: Cathal Finucane
Student(s): Liam Hynes

5221

Title: Feamainn - an leasachán foirfe é. Seaweed - the perfect fertiliser
Overview: ag fáthaint ar na fáthanna go bhfuil feamainn ina leasachán foirfe, ag tástáil leibhéil chothaitheach ithreach, leibhéil coinneála uisce leibhéil ph, tástálacha ceimiceacha agus anailís. Looking at reasons why seaweed is the perfect fertiliser, testing soil nutrient levels, water retention levels ph levels, chemical tests and physical analysis
School: Coláiste Ghobnait
County: Galway
Teacher: Cormac Coyne
Student(s): Gerald Greene

SENIOR INDIVIDUAL

5300

Title: How certain foods inhibit the breakdown of sucrose to help long distance runners
Overview: Testing how inhibitors in food impact the rate the enzyme sucrose breaks down sucrose to inform athletes and diabetics of the impacts.
School: Gonzaga College
County: Dublin
Teacher: Evelyn Kane
Student(s): Kevin Lannon-Walsh

5301

Title: EcoLytix: ML-Powered environmental monitoring and spectral analysis of invasive *Rhododendron Ponticum*
Overview: ML-Powered remote monitoring and analysis of invasive species such as *Rhododendron Ponticum* to aid in environmental protection.
School: Kinsale Community School
County: Cork
Teacher: Shaun Holly
Student(s): Ian Cullinane

5302

Title: Harnessing Donegal's coastal wealth; The sustainable & renewable harvesting of Donegal seaweed using the advanced solar drying method for biodiesel production

Overview: Using sustainable harvesting techniques and advanced drying methods to extract biodiesel from under-utilised seaweed species in Donegal, from Portsalon to Portnoo.

School: St Columba's Comprehensive School
County: Donegal
Teacher: Ruth Pierce McPolin
Student(s): Klara Piechocka

5303

Title: Cropping and Docking: Cool or Cruel?
Overview: This project will delve into the topic of is it cruel to permanently alter a dog's ears and tail for aesthetic purposes.
School: St Mary's Secondary School Macroom
County: Cork
Teacher: Shannen Foley
Student(s): Olivia Moynihan

5304

Title: A comparative study of the diversity and frequency of fungi between native and planted forests in Wicklow
Overview: My project aims to find out if there are any significant correlation in fungi populations between native or planted forests
School: St David's Holy Faith Secondary
County: Wicklow
Teacher: Garry Lynch
Student(s): Poppy Mullally

5305

Title: Sealing The Future, Polymer based adhesives for safer internal wound healing
Overview: This project aims to revolutionise post-surgical care by developing an innovative polymer-based adhesive, offering faster healing, reduced infections, and a more comfortable recovery for patients.
School: Adamstown Community College
County: Dublin
Teacher: Sean O'Donnell
Student(s): Amelia Lupascu

5306

Title: The protective effect of Lycopene on dermal fibroblasts under UV-Induced oxidative stress.
Overview: The protective effect of lycopene on dermal fibroblasts under UV Induced oxidative stress and if lycopene increases cell viability.
School: Mercy Secondary School Mounthawk
County: Kerry
Teacher: Fiona O'Connor
Student(s): Yasmine Odugbesan

5307

Title: Investigating the antimicrobial properties of the Willow tree: Examining the plants potential uses in the pending global antimicrobial resistance crisis.
Overview: Can the compounds found in the willow tree serve as an effective natural antimicrobial remedy against common pathogens, and how they compare to synthetic antimicrobials.
School: Mount St Michael
County: Mayo
Teacher: Stephanie Hogan
Student(s): Maresa Moore

5308

Title: Investigating the effectiveness of zeolites as a soil amendment to reduce nitrate runoff from fertilisers.
Overview: To investigate the effectiveness of zeolites at reducing nitrate loss through runoff water from fertilisers to increase the bioavailability of the fertiliser and prevent eutrophication.
School: Tullamore College
County: Offaly
Teacher: Elaine Howlin
Student(s): Fionnán Murray

5309

Title: We Mosst Remove Heavy Metals from Water. A biological solution to heavy metal pollution.
Overview: I am investigating whether there is a way to create a natural and environmentally friendly way to remove heavy metals from the Avoca river.
School: St Marys College Arklow
County: Wicklow
Teacher: Joanne English
Student(s): Alice Giles

5310

Title: A study into maximising ACRES payments for Grassland Farmers.
Overview: A study on ACRES and the possibility of a farmer adjusting grazing pattern on their land to positively influence the ACRES Score and financial payment.
School: Árd scoil na mBráithre
County: Tipperary
Teacher: Jessica Rowe
Student(s): Oran Sheehan

5311

Title: An investigation into the feasibility of using *Ulva lactuca* as a method in the removal of nitrates and phosphates from sea water.
Overview: I am looking at how effective *Ulva lactuca* is in removing nitrates and phosphates from sea water and if salinity affects its effectiveness.
School: Mary Immaculate Secondary School

County: Clare
Teacher: John Sims
Student(s): Oisín Jackson

5312

Title: Identification of Potential New Treatments for Pancreatic Cancer

Overview: My aim is to find promising new treatment options for pancreatic cancer and to stimulate clinical testing of the potential new treatments that I identify.

School: St Andrews College
County: Dublin
Teacher: Emily Casey
Student(s): Niall Hennessy

5313

Title: Nature takes on nature to eradicate invasive species.

Overview: to investigate the inhibitory effect of Juglone extracted from the hull of the Black Walnut tree on the growth and eradication of Japanese Knotweed.

School: Gaelcholáiste Chiarraí
County: Kerry
Teacher: Tríona Uí Mhaolchatha
Student(s): Grace Ní Ifeárnáin

5314

Title: To investigate the Influence of LED Light Spectral Variations on Basil (*Ocimum basilicum* L.) Vitamin C Composition.

Overview: To investigate the influence of LED light spectral variations on Basil, Vitamin C composition using high performance Liquid Chromatography.

School: Mungret Community College
County: Limerick
Teacher: Jessica Heffernan
Student(s): Diana Agyub

5315

Title: An assessment of the ecology of Tacumshin Lake and wetlands.

Overview: I will investigate the health of the ecosystem of Tacumshin lake and wetlands, including impacts of human activity e.g. pollution (lead and nitrates), disturbance.

School: Coláiste Abbáin
County: Wexford
Teacher: Garry Conroy
Student(s): Fiach Weber ó' Cianain

5316

Title: Biodegradation: A continued investigation into how plastic-to-worm & worm-to-plastic ratios affect biodegradation rates.

Overview: My continued project's goal is to investigate the effects of how to change the ratio of *Galleria Mellonella* to plastic & plastic to

Galleria Mellonella.
School: Coláiste Muire Crosshaven
County: Cork
Teacher: Bridget Lehane
Student(s): Ellen O'Donoghue

5317

Title: An analysis of the effect of equine therapy on the performance levels of horses

Overview: I will be looking at the effect of physiotherapy on competition horses.

School: Loreto Community School
County: Donegal
Teacher: Roisin Coyle
Student(s): Tara Brennan

JUNIOR GROUP

5400

Title: What sugar and tea does kombucha tea prefer?

Overview: Assessing how changing the tea and sugar components in kombucha tea will affect the fermentation process.

School: St Mary's Diocesan School
County: Louth
Teacher: Sophie Caine
Student(s): Cathal Minogue, Destiny Ikede, Sean O Shea

5401

Title: Analysing the environmental effect of war using C.A.W.E.C.O - Calculator Assessing War's Environmental Cost and Outcome.

Overview: Our project aims to inform people of the impact war has on the environment and to calculate how devastatingly toxic that impact is using C.A.W.E.C.O.

School: Seamount College
County: Galway
Teacher: Fiona Ryan
Student(s): Finn Mannion, Euan Burke

5402

Title: Herd Herbs: Herbal remedies to prevent mastitis in dairy cows.

Overview: This project examines garlic, turmeric, and aloe vera's effectiveness in naturally preventing mastitis, aiming to reduce antibiotic reliance and improve livestock health on dairy farms.

School: St Joseph's Community College
County: Clare
Teacher: Laura Egan
Student(s): Ava Daly, Laura Mahoney, Mollie Collins

5403

Title: Bird Flu - Should we be worried or wing it?

Overview: An Investigation into the human threat of bird flu and the prevalence of the H5N1 virus in native bird droppings.

School: Castleblayney College
County: Monaghan
Teacher: Celine Keith
Student(s): Aoibhín McDonald, Rhiannon Mc Mahon, Zyon Muringayi

5404

Title: Imscrúdú ar éifeacht bhrú atmaisféarach fola ar bhrú fola ag aoisghrúpaí éagsúla. Investigation into the relationship between atmospheric pressure and blood pressure at various age groups
Overview: Tá muid chun brú fola daoine ag aoiseanna éagsúla a thomhas ag brú atmaisféarach éagsúl thar thréimhse dhá mhí. We will measure the blood pressure of different age groups at different atmospheric pressures over two months

School: Coláiste Ailigh
County: Donegal
Teacher: Shane Ó Breacáin
Student(s): Faye Ní Ghallachóir, Sarah Rose Harrison, Ava Ní Giolla Chomghaill

5405

Title: An investigation into skin microbiomes of people who identify as highly-attractive and bitten by mosquitoes and poorly-attractive and not bitten by mosquitoes.

Overview: I will investigate if there are differences in the skin microbiomes of people who identify as bitten by mosquitoes and not bitten by mosquitoes.

School: Abbey Vocational School
County: Donegal
Teacher: Donna Furey
Student(s): Clodagh Hannigan, Katie Barr

5406

Title: An Investigation into using Total Leaf-Area as a predictive tool for determining below-ground biomass at all stages in the growth of selected Root-Crop Plants.

Overview: This study explores using leaf-area and UAV imagery with machine learning to predict below-ground biomass in root crops during a 6-month field experiment.

School: St Mary's Secondary School Mallow
County: Cork
Teacher: Rory Coote
Student(s): Alvy Fitzgerald, Anna Duggan, Leah O'Sullivan

5407

Title: Using biological indicators to investigate the air quality in Co. Armagh.

Overview: We are investigating the number of Tar spots on Sycamore leaves and also the presence of Lichens on trees to find out about

air quality.

School: St Patrick's High School
County: Armagh
Teacher: Noeleen Corr
Student(s): Conor McGoldrick, Isla King, Niamh Devlin

5408

Title: Na hÉifeachtaí minicíochta fuaime ar fhás plandaí. The Effect of Frequency on Plant Growth

Overview: Déanfaidh muid staidéar ar éifeachtaí minicíochta fuaime ar fhás plandaí. We will study the effects of frequency on plant growth.

School: Coláiste Ailigh
County: Donegal
Teacher: Aidan Burke
Student(s): Faith-Leigh Bomah, Fianna Ní Ghaotháin, Síofra Ní Chnaimhsí

5409

Title: A mixed method observational study of our local bird population and their feeding behaviour

Overview: Our project is a mixed method observational study of the feeding patterns and behaviours of our local birds

School: Scoil Mhuire
County: Roscommon
Teacher: Mairead Glynn
Student(s): Isabella Geraghty, Grace Geraghty

5410

Title: The study of Air Quality using leaf yeast in Roscommon

Overview: Analysing leaf yeast to detect air quality in areas around Roscommon. Focusing on areas near where a new road is being built.

School: Elphin Community College
County: Roscommon
Teacher: Deirdre Daly
Student(s): Eleanor O'Connell, Moya Kelly, Julia Pawlak

INTERMEDIATE GROUP

5500

Title: KEVIN - An AI model for diagnosing Keratoconus

Overview: KEVIN is an AI model which uses state of the art algorithms to diagnose Keratoconus from corneal topography scans

School: Stratford College
County: Dublin
Teacher: Helen O'Kelly
Student(s): Ritvik Venkateshwar, Hao Wen Liu, Noah Twyford

5501

Title: Assessing the effectiveness of the Deposit Return Scheme in reducing plastic waste in Cork

Overview: Assessing the

Biological & Ecological Sciences

AMGEN

effectiveness of the Deposit Return Scheme in reducing plastic waste in Cork.

School: Regina Mundi College

County: Cork

Teacher: Brian Deasy

Student(s): Fallon O'Brien, Cara McKeown, Faye Dunwell

5502

Title: Microplastics on the Menu: Food in Markets versus Supermarkets

Overview: Our project aims to examine the differences between buying food in plastic versus without. We aim to test for microplastics in both to discover this.

School: St Mary's High School

County: Cork

Teacher: Michelle O' Driscoll

Student(s): Sophie Lynam, Emma Power

5503

Title: How do different fertilisers affect microorganisms

Overview: We are investigating the effect different fertilisers have on the soil microbiome.

School: Castlecomer Community School

County: Kilkenny

Teacher: Robert Morris

Student(s): Aidan Flaherty, Niall Wilson, Kian Thunder

5504

Title: Is Your Head In The Game?

Overview: Our project wishes to examine and demonstrate the impact a mental warmup has on performance levels in camogie trainings, skill tests and matches.

School: St. Joseph's Secondary School, Navan

County: Meath

Teacher: Fiona Leavy

Student(s): Maria McLoughlin, Salomeja Slusnyte

5505

Title: Fogponics: An Investigation into Better Crop Production

Overview: An investigation into the difference between fogponics and aeroponics and are pollutant nutrients from farms more beneficial for growth than nutrient solutions purchased online

School: Clonakilty Community College

County: Cork

Teacher: Patrick O'Keeffe

Student(s): Jerry O'Leary, Conrad Murphy, James Maguire

5506

Title: Can exercise positively influence academic performance? An investigation into the effects of exercise on primary school

students' academic achievements

Overview: We will analyse if exercise affects the concentration levels of children. Participants will carry out written assessments and exercise activities during this experiment.

School: Coláiste Choilm

County: Cork

Teacher: Rachel Burke

Student(s): Ciara Power, Abbey Mooney

5507

Title: The effect of blue oyster mushrooms on the rate of decomposition of waste.

Overview: We will be testing the effect of mushrooms on the rate of decomposition of waste in a controlled environment.

School: St John Bosco Community College

County: Clare

Teacher: Eanna Collins

Student(s): Niamh Cook, Tadhg Hennessy, Máire Czyszczak

5508

Title: Which breathing technique is most effective in reducing symptoms of exercise induced bronchoconstriction: Buteyko vs Alternate Nostril Breathing

Overview: Our project researches whether Buteyko or Alternate Nostril breathing is most effective in reducing symptoms of exercise induced bronchoconstriction over 6 weeks

School: Coláiste Choilm

County: Cork

Teacher: Paudie Scanlon

Student(s): Isobel Goggin, Jasmine O'Sullivan

5509

Title: Return: An investigation into Irish people's opinions and attitudes on our new recycling system

Overview: A statistical analysis on whether the new recycling system in Ireland is beneficial or not. We will carry out a survey on the public views

School: Borrisokane Community College

County: Tipperary

Teacher: Rachel Ahern

Student(s): Grace Cleary, Keira McSherry, Chloe Cleary

5510

Title: Water purification

Overview: The project idea is to purify water in cattle drinkers by using plants therefore reducing cost and reducing use of harmful chemicals

School: Wilson's Hospital School

County: Westmeath

Teacher: Mark Condell

Student(s): Andrew McLean O Hara, Isaac O'Neill

5511

Title: Are Slurry Additives the future of farming?

Overview: The objective of this investigation is to determine if slurry additives not only improve soil health, while also maximising grass growth.

School: Cistercian College Roscrea

County: Tipperary

Teacher: Jennifer Denny

Student(s): Thomas Deegan, Ronan O'Neill, Jack Duggan

5512

Title: The CURT: A Cork Underground Rapid Transit system designed by the Physarum Polycephalum slime mould.

Overview: Our project aims to examine the growth of physarum polycephalum mould and use this to develop an underground rail system for Cork City.

School: Coláiste an Spioraid Naoimh

County: Cork

Teacher: Crona McCarthy

Student(s): Jacob Wallace, Mark Donnelly, Pearse Ó'Cróinín

5513

Title: Alage bloom vs cobalt plume, éifeacht tíúchan cóbalt ar ráta fáis Mighty Spirulina

Overview: Déanfaidh an tionscadal seo scrúdú ar na tionchair chomhshaoil a bhaineann le tíúchan cóbalt a mhéadú ar rátaí fáis Spirulina. This project will examine the environmental impacts of increasing cobalt concentrations on the growth rates of Spirulina

School: Coláiste Ailigh

County: Donegal

Teacher: Shane Ó Breacáin

Student(s): Lorcan Farrell, Siún Ní Dhomhnaill, Ella Homer

5514

Title: Lovely Bubbly Bladderwrack: Investigating the effect of exposure on the size of air bladders on Bladderwrack.

Overview: We will investigate the effect of environmental conditions on the quantity and size of bubbles on bladderwrack seaweed in three different locations.

School: St. Joseph's Secondary School Spanish Point

County: Clare

Teacher: Catherine Clair

Student(s): Keelin Corry, Emma Talty

5515

Title: Liver Lifeline

Overview: Our project, "Liver Lifeline" is an experiment to

investigate if oxidising agents have the same effect on the liver as recommended supplements.

School: Tullamore College

County: Offaly

Teacher: Elaine Howlin

Student(s): Tess Flynn, Anna Maunsell, Clodagh Hynes

5516

Title: Mouth vs Nose: The breath battle

Overview: Our project will compare the difference between nasal breathing and oral breathing and how it affects a person in the long run.

School: St. Joseph's Secondary School, Navan

County: Meath

Teacher: Fiona Leavy

Student(s): Eppie Clarke, Saoirse McGovern

5517

Title: Electrobloom: An electroculture growth chamber to increase the germination and yield of protected crops.

Overview: To design and build a growth chamber for horticulturists which incorporates the principles of electro-culture. This chamber will increase yield, germination rates and sustainability.

School: Moate Community School

County: Westmeath

Teacher: Irene O'Sullivan

Student(s): Hollie Field, Heidi Shellam, Saoirse Lynam

5518

Title: An Assessment of the Reliability of Weather Proverbs in a Time of Climate Change

Overview: Assessing the reliability of weather sayings in a time of climate change and assessing the impact of our study on farmer's attitude to climate change

School: Millstreet Community School

County: Cork

Teacher: Shane Guerin

Student(s): Anna Buckley, Saoirse Kiely, Méabh Casey

5519

Title: Fungi Civil War: Using Birch Polypore to develop a treatment spray for bovine ringworm.

Overview: This project aims to use Birch polypore (Fomitopsis betulina) to produce a cheap and effective anti-fungal spray for ringworm treatment in Irish cattle herds.

School: Moate Community School

County: Westmeath

Teacher: Mairead Cusack

Student(s): Aoife Ross, Katie Creggy, Katie Ann McHugh

5520

Title: Shading The Future: Analysing the cellular and genetic responses of cellulose and DNA to Ultraviolet Light.

Overview: An investigation into the protection of DNA by creating a cellulose film derived from seaweed potentially blocking ultraviolet light from our eyes

School: Castleblayney College

County: Monaghan

Teacher: Celine Keith

Student(s): Hannah Quinn, Caoimhe Quinn

5521

Title: Unlocking the Soil: A comprehensive study on biochar's role in soil enhancement

Overview: This scientific investigation explores the benefits and applications of biochar in sustainably enhancing soil quality to help maintain natural soil nutrients.

School: St Josephs College

County: Tipperary

Teacher: Mary Gorey

Student(s): Cormac Frend, Evan Ryan, Jack Gould

5522

Title: Investigating the effect the deer population has had on the local ecosystem of North Tipperary

Overview: This project investigates deer overpopulation impacts on ecosystems and explores management strategies like controlled hunting and fertility control to promote ecological balance and reduce conflicts

School: St Josephs College

County: Tipperary

Teacher: Mary Gorey

Student(s): Ciaran Troy, Darragh Kelly

5523

Title: Problematic Parasites! A comparative study between composite faecal samples and individual faecal samples.

Overview: Our project aims to examine how worms are diagnosed in calves using faecal egg counts and avoid excess anthelmintic usage, making calf rearing more sustainable.

School: Skibbereen Community School

County: Cork

Teacher: Liam Shanahan

Student(s): Grace Hickey, Caoimhe O'Donovan

5524

Title: Hydroponics Towers, Rockwool v Earthwool

Overview: We are investigating the effects on the growth of basil

and lettuce using rockwool and earthwool as substrates in a hydroponic tower.

School: Coláiste an Spioraid Naaimh

County: Cork

Teacher: Crona McCarthy

Student(s): James Gea Duffy, Glen McGovern, Aidan Noah Sembrano

5525

Title: Chicken Talk

Overview: We will examine the effect of different chicken feeds on hens and their egg output and quality.

School: St.Brendan's Community School

County: Offaly

Teacher: Frances Dowling

Student(s): André Mulcahy Viegas, Alex Loughnane, Alfie McGrath

5526

Title: Bitfit - A measure to accurately determine bit size in the equine industry.

Overview: Finding the correct bit sizes for horses is currently trial and error. Wrong bit sizes causes horses to 'hang' leading to deterioration in athletic performance.

School: St Josephs College

County: Tipperary

Teacher: Mary Gorey

Student(s): Liam Hackett, Aron Kilgallon, David Anthony Michael Rabbitte

5527

Title: Tides of Contamination: The effect of tidal estuaries on water quality of local beaches.

Overview: Investigating the levels of E.coli in waters of a local beach with and without a tidal estuary, to see if they influence water quality.

School: Mount St Michael

County: Cork

Teacher: Alan O' Rourke

Student(s): Órla McCarthy, Holly Murray, Anna Brinkmann

5528

Title: City Greens: Growing food with Hydroponics and Aquaponics for sustainable urban farming.

Overview: Comparing the growth rate of vegetables in both rural and urban environments using hydroponic and aquaponic methods

School: Scoil Pól

County: Limerick

Teacher: Aisling O'Connor

Student(s): Anna O'Brien, Nadine Lane, Rebecca Donegan

5529

Title: Níl plaisteach fungi... Staidear isteach i brise síos plaisteach oxoin-bhithmillte ag

úsáid fungi áitúila. Plastic's not a fungi... A study into the breaking down of oxo-biodegradable plastic through the use of local fungi

Overview: Tá muid ag fiosrú más féidir fungi a bhfuil áitiúil go hÉireann a úsáid chun trúillú plaisteach a brise síos. We are doing a study into if we are able to use local fungi to break down plastic waste.

School: Meanscoil Gharman

County: Wexford

Teacher: Dan Fitzpatrick

Student(s): Niamh Ni Mhurchu, Layla Byrne

5530

Title: Green Sheets: Sustainable Paper from Grass

Overview: Our project investigates whether grass paper could be a more effective material than traditional paper for packaging.

School: Tullamore College

County: Offaly

Teacher: Noreen Flynn

Student(s): Ryan Plunkett, Cillian Farrell

5531

Title: Sliabh an Iarainn: an active bog?

Overview: This project investigates the status of the blanket bog on Sliabh an Iarainn mountain and as a result whether it is a priority habitat.

School: Ballinamore Community School

County: Leitrim

Teacher: Eamon Geoghegan

Student(s): Hannah Morgan, Clodagh Gartland, Ella Adams

5532

Title: Silage Pit Showdown: Battle of the Biofilms vs. Plastic Covers

Overview: Our project seeks to determine the most sustainable and effective way to cover silage pits, while maintaining high-quality silage

School: Mount St Michael

County: Cork

Teacher: Alan O' Rourke

Student(s): Stephen Jennings, Liam O'Brien, Niklas Schnell

5533

Title: Pulsed Electrical Fields Application To Cells

Overview: The cell membrane is sensitive to electrical fields. Our project aims to demonstrate how we can safely disrupt the cell membrane with electrical pulses.

School: Mount St Michael

County: Cork

Teacher: Alison O' Neill

Student(s): Julia Soden, Ella Fee, Siún Corish

5534

Title: The effects of exercise on singing

Overview: We will be testing the effects of physical exercise on vocal performance(singing).

School: Coláiste Pobail Naomh Mhuire

County: Cork

Teacher: Pat Curtin

Student(s): Kate Shinnick, Freya O Riordan

5535

Title: Does reducing the routine use of antimicrobials on dairy farms reduce the antimicrobial resistance in bacteria isolated from cows' milk on those farms?

Overview: We tested for differences in antimicrobial resistance patterns of bacteria isolated from milk samples collected on dairy farms with differing levels of antibiotic use.

School: Ursuline Secondary School

County: Tipperary

Teacher: Anne Molony

Student(s): Julie Johnson, Ella Frend

5536

Title: Which Wood You Rather? An investigation into the concealed effects chemically-treated wood have on biodiversity and nature.

Overview: We will assess the hidden threats synthetic woods pose to our natural environment by executing various experiments on several wood specimens.

School: St. Leo's College

County: Carlow

Teacher: Kelley Comerford

Student(s): Fatima Naeem, Naomi Picovici

5537

Title: Classroom Air Makeover. An investigation into the effect of the Peace Lily plant on Carbon Dioxide concentration in classrooms.

Overview: This investigation will assess the potential for the Peace Lily plant to improve classroom CO2 levels. We hope to contribute to healthy, productive learning spaces.

School: Ursuline College Blackrock

County: Cork

Teacher: Sarah Jane Brady

Student(s): Berfin Muhsinoglu, Izzy Morrish, Hannah Browne

5538

Title: Pea Power: A sustainable protein crop

Overview: The goal of this investigation is to identify a more sustainable plant-based protein source that can help reduce our carbon footprint.

School: St. Joseph's Secondary School Tulla
County: Clare
Teacher: Mairead O'Brien
Student(s): Emily Cronin, Kiera Kelly

5539

Title: Fás Plandaí: an é truaillú na miniú? Plant Growth: Is Pollution the solution?

Overview: Staidéar ar uisce truaillith ó aibhneacha Chill Mhantáin agus an eifeacht ar fhás plandaí. A study of polluted River water from the Wicklow area and its effect on plant growth.

School: Gaelcholáiste na Mara
County: Wicklow
Teacher: Rebecca Ní Chonchuir
Student(s): Dannie Doyle, Cian Byrne

5540

Title: Utilizing and repurposing household waste into mushroom based materials

Overview: Utilizing and repurposing household waste into mushroom based materials

School: Árd scoil Uí Urmoltaigh
County: Cork
Teacher: Paul Bouchier
Student(s): Liam O'Donovan, Shay Kelly, Karolis Gridziuska

5541

Title: Waste to Watts: Harnessing Microbial Fuel Cells as a renewable resource for Developing Countries.

Overview: Our aim is to investigate the efficiency of jelly-enclosed versus freely-suspended microbial fuel cells using artificial urine and faeces for sustainable energy generation in developing

School: St Bricin's College
County: Cavan
Teacher: Daryl Dunne
Student(s): Áine McGovern, Alicja Czop

5542

Title: The antibacterial properties of algae

Overview: Using the bioactive compounds in marine algae to create more accessible antibiotics for lower economic developed countries.

School: Sutton Park School
County: Dublin
Teacher: Joanne Hanratty
Student(s): Arya Ramalingam, Esther Ntoko

5543

Title: A continued ecological study of the effects of a sewage treatment plant on the biodiversity of Mulroy Bay

Overview: Project is a continued

study of looking at Mulroy bay and comparing the water quality before and after the sewage system is in place

School: Loreto Community School
County: Donegal
Teacher: Siobhan Herron
Student(s): Ava Molloy, Olivia Doherty, Mia Boyce

5544

Title: Could the Lough Derg disaster have been prevented?
Overview: To test algae to combat nitrates and harvest that algae before it blooms to avoid what happened in Lough Derg.

School: Árd scoil Uí Urmoltaigh
County: Cork
Teacher: Paul Bouchier
Student(s): Cillian Cuffe, Andrew Connolly, Donnacha Hickey

SENIOR GROUP

5600

Title: Oh Deer: An investigation into how deer overpopulation might be biodiversity, agriculture and road safety's biggest rut.

Overview: For our BTYSE project, we are investigating how the deer population in Ireland has severely impacted biodiversity loss, road safety and agriculture in Ireland.

School: St Mary's Secondary School Macroom
County: Cork
Teacher: Shannen Foley
Student(s): Ella White, Amy McCullagh

5601

Title: An tionchar agus Leigheasacháin do Grabhóig Rubar sa Timpeallacht. The impact and remediation of crumb rubber on the environment

Overview: Is é aidhm an iniúchadh seo ná chun aimsiú an éifeacht timpeallachta de ghrabhóig rubair nó 'Astro Turf'. The aim of this investigation is to discover the environmental effect of crumb rubber, also known as 'Astro Turf'.

School: Gaelcholáiste Mhuire
County: Cork
Teacher: Lorcan Fenton Leogue
Student(s): Ciara Foley, Áine Ní Eathairn, Chloe ní Mhairtín

5602

Title: Is Your Fire Killing You?

Overview: A continuing investigation into which solid fuels burned in fireplaces are better and worse and the effect burning them has on health and the environment

School: Loreto Secondary School
County: Kilkenny
Teacher: Brendan Williams
Student(s): Lucy Byrne, Saoirse Boylan, Orlaith Donnelly

5603

Title: The Effects of Acid Rain on Plant Growth: Implications for Bogland Sustainability

Overview: Bogs are flat wetland whose primary supply of water and nutrients is from rainfall. What happens when "acid rain" falls? The effects are detrimental.

School: Our Lady's Bower
County: Westmeath
Teacher: Ellen Maguire
Student(s): Muireann Lambe, Grace Fleming

5604

Title: Microplastics in the Irish Brown Crab

Overview: Our aim is to observe the microplastic pollution of Ireland's waters, through the use of the edible Irish brown crab.

School: Midleton College
County: Cork
Teacher: Simon McKeown
Student(s): Samira Heckett, Hannah Curtin

5605

Title: Fingerprinting water and determining its age to help improve the quality of our rivers

Overview: Ireland has a large agricultural community. Overuse of slurry and fertilizer causes runoff to enter our streams and impacts over 1,000 streams.

School: Mount St Michael
County: Cork
Teacher: Alison O' Neill
Student(s): Adam Baker, Rory McCarthy, Vincent Daly

5606

Title: An investigation into the use of natural compost vs slurry and synthetic fertilisers in a community garden.

Overview: We are investigating which medium of natural compost is most effective the cultivation of crops in our potassium and macro organism deficient garden

School: Mount St Michael
County: Cork
Teacher: Alison O' Neill
Student(s): Áine O'Donovan, Emma Crowley, Jenna Louise Hayes

5607

Title: The observation of the feeding habits of fledgling Common Swifts (Apus apus) correlating to weather conditions

Overview: The objective of our observational study is to determine how the hourly feeding frequency of swift fledglings varies with weather conditions and fledgling age.

School: Ballinrobe Community School

County: Mayo

Teacher: Barry Rourke
Student(s): Luke Mulloy, Emma Sweeney, Emily Butler

5608

Title: Upcycling waste streams for Agriculture use and protecting water sources, a continued study

Overview: The aim of our research is to create a sustainable replacement for chemical fertiliser through the use of processed human waste known as Biosolids

School: St. Mel's College
County: Longford
Teacher: Mairead Reynolds
Student(s): Jared Weafer, Gerard Keogh

ON STAGE



MARK THE SCIENCE GUY PRESENTS

SPORTS TECH AND PEAK PERFORMANCE

Join physicist and former professional footballer, Mark Langtry, aka the Science Guy, in a fusion of science, technology and sports. Discover the role STEM plays in achieving peak performance on and off the field, and the power of our mind in achieving our full potential.

Take part in interactive demonstrations, experiments, challenges and activities live on stage in this high-energy show!



MARK THE SCIENCE GUY PRESENTS

EXTREME ADVENTURES

Scientist and Explorer, Mark the Science Guy, takes you on a thrilling scientific expedition to discover more about our planet and what drives us to the extremes in search of the truth.

Fuel your desire to be a changemaker by pushing your body and mind to the limits in this exhilarating show.

Instagram: Mark_theScienceGuy

TikTok: Mark the Science Guy

Twitter: @MarkLangtry

Facebook: Mark the Science Guy





CONCERT HALL THROUGH THE COSMOS

3D THEATRE

Our knowledge of the universe is growing at an ever-increasing pace.

We have visited the outer reaches of our Solar System with our spacecraft missions and learned incredible things about how our star, The Sun, works.

Our ground and space based telescopes peer into the vastness of space and the imagery and data we receive has provided us with new knowledge and challenged many of our existing concepts of how the universe began, how galaxies form and when the first stars began to shine.

This adventure will take the audience on a remarkable 3D journey through our Solar System and out to the very edge of the known universe to in a voyage of cosmic discovery.



WHAT STUFF DOES CIRCUS 250



What Stuff Does reveals the mechanics and mysteries behind the art of juggling. With comedy and incredible circus skills, phenomenal performer and research scientist Robin Dale unpacks the mechanics of juggling using flying ping pong bats, disobedient buckets of water and a wrestling match with a flipchart.

In a show of dazzling skills, expert scientific analysis and tongue-in-cheek commentary, What Stuff Does uncovers the rich and playful opportunities for us all when we start to understand how the physical world works. Part TEDtalk, part stand-up comedy, part mesmerising circus act, this is an utterly unique and hilarious one-man show.



CLYDE ROOM FOYER GLOBAL GOALS (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).

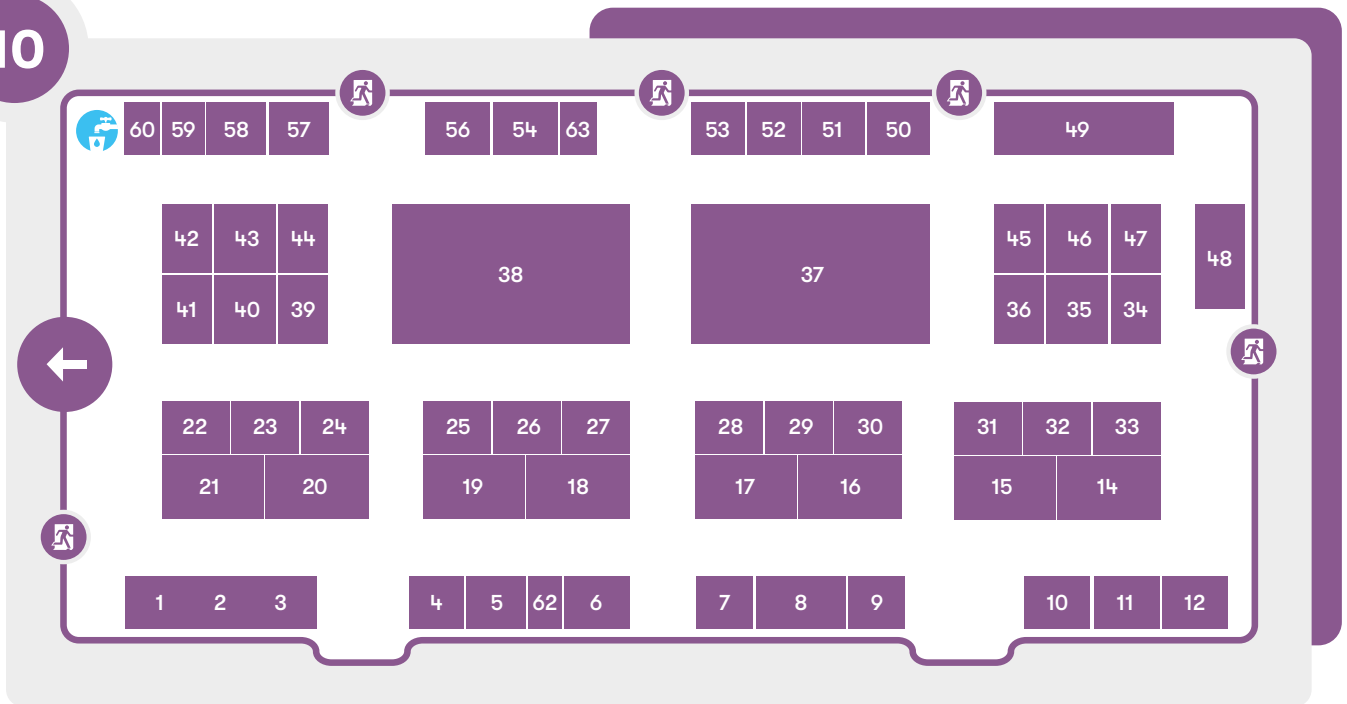


Irish Aid
An Roinn Gnóthaí Eachtracha
Department of Foreign Affairs



Exhibit halls

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abbvie

AbbVie 33

AbbVie's mission is to discover and deliver innovative medicines that solve serious health issues today and address the medical challenges of tomorrow. We strive to have a remarkable impact on people's lives across several key therapeutic areas: immunology, oncology, neuroscience, eye care, virology, women's health, and gastroenterology, in addition to products and services across its Allergan Aesthetics portfolio.

AbbVie actively engages with students and graduates throughout their educational journey, demonstrating a strong commitment to nurturing the next generation of STEM professionals. The company has a proud tradition of offering dynamic and well-structured graduate programmes designed to develop future leaders and employees.

AbbVie employs approximately 2,700 people at six locations across Ireland including Cork, Sligo, Mayo, and Dublin. The company has been recognised as one of the Best Large Workplaces in Ireland for the past eleven years and was also named as a Best Workplace for Women.

www.abbvie.ie



ABP 20

ABP is one of Europe's leading privately owned agribusiness companies and is the largest beef processor in Ireland and the UK. The company also operates substantial renewable (Olleco), pet food (C&D), and protein divisions. ABP employs over 14,000 people and has over 50 manufacturing plants operating across nine countries. For more information, visit www.abpfoodgroup.com

abpfoodgroup.com



AirNav Ireland 27

AirNav Ireland, a leading commercial semi-state company, employs a team of around 670 professionals across six locations nationwide.

Our mission is to keep Ireland's skies safe and efficient, managing air traffic

across an expansive 451,000 km² of controlled airspace. At the heart of our operations are over 200 skilled air traffic controllers based in Dublin, Cork, and Shannon, a team of highly trained engineers and 50 dedicated radio officers in Ballygirreen, Co. Clare, who work tirelessly to ensure the seamless flow of air traffic. Together, we play a pivotal role in connecting Ireland to the world while prioritising safety, precision, and excellence.

airnav.ie



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 18

Amgen harnesses the best of biology and technology to fight the world's toughest diseases, and make people's lives easier, fuller and longer. We helped establish the biotechnology industry, and we remain on the cutting-edge of innovation, using technology and human genetic data to push beyond what's known today.

www.amgen.ie



AHEAD OF WHAT'S POSSIBLE™

Analog Devices 38

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 customers transform raw data into actionable insights and make connected devices smarter and more responsive. With our analog and mixed-signal



devices, power management, radio frequency offerings, and edge processors and sensors, we harness and activate the data that bridges the physical and digital worlds. Whatever breakthroughs are next—in aerospace, automotive, sustainable energy, communications, digital healthcare, industrial automation, instrumentation, or consumer — ADI will be there to keep you ahead of what’s possible. With revenue of \$9.4 billion in FY24 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 www.analog.com and on LinkedIn and Twitter (X).

www.analog.com/en/landing-pages/001/btyste.html



Atlantic Technological University (ATU)

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Atlantic Technological University (ATU) is a nine-campus technological university in the west and northwest of Ireland that delivers a rich combination of academic and research excellence, quality of life and opportunity.

ATU has a student population of just under 27,000 learners and offers 226 CAO programmes. The practical and career focused education as a technological university focuses heavily on applied learning, industry partnerships, and employability. 95% of ATU programmes integrate internships, work placements, and practical skills that directly relate to the job market. ATU’s growing research capabilities encourages students to pursue research opportunities or advanced studies at ATU if they are interested in contributing to innovative projects.

ATU is now the university of choice because of its strong regional focus, practical and career-oriented education, supportive learning environment, and future-driven academic programmes, all of which contribute to student success and employability.

www.atu.ie



BT

HALL 2

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

8

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

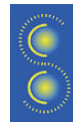


Climate Change Advisory Council

52

The Climate Change Advisory Council is an independent advisory body tasked with assessing and advising on how Ireland is making the transition to a climate-resilient, biodiversity-rich, environmentally sustainable and climate-neutral economy.

www.climatecouncil.ie



CONCOS

57

Coláistí Gaeilge - Irish Summer Colleges

www.colaistigaeilge.ie



Conradh na Gaeilge

26

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



Cumann na bhFiann

59

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.

Cumann na bhFiann is Ireland’s largest Irish language Youth Organization. We organize weekly Youth Clubs alongside Regional and Nationwide Events. This gives countless young people the opportunity to speak “as Gaeilge” in enjoyable, fun and safe settings.

www.cnb.ie



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

Dept of Agriculture, Food and the Marine

24

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

17

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/department-of-education/



An Roinn Gnóthai Eachtracha
Department of Foreign Affairs

Department of Foreign Affairs

46

The Department of Foreign Affairs provides a range of citizen services, such as Passport Services, Consular Services, and practical supports and travel advice to all Irish citizens and those travelling abroad. We encourage people to Travel Wise & 'Make the Right Memories' by following practical steps to stay safe and look after each other while on holidays.

Our innovative and award-winning PassportOnline service is the fastest way to apply for your passport from anywhere in the world. It is secure and convenient, and available 24 hours a day, 7 days a week, on a smartphone, tablet or PC.

The current Irish passport was a significant departure from previous generations and incorporates unique imagery and security features, which has set a standard internationally since its launch. High-quality security design is central to maintaining its integrity and reputation. The Irish passport is currently ranked third in the Henley Global Passport Index.

As we celebrate 100 years of the Irish Passport, the Department of Foreign Affairs will showcase the science behind our award-winning Passport in a dynamic & interactive exhibition that demonstrates some of its globally advanced security and technology features.

Visit our stand to see how the Irish passport is designed using state-of-the-art materials and embedded technologies that safeguard against forgery and unauthorised use.

Come and see the 100 Year Timeline which tracks its fascinating evolution over the past century.

The Department will also share top tips on how you can Travel Wise and 'Make the Right Memories' when travelling abroad.

www.Ireland.ie

DCU Ollscoil Chathair
Bhaile Átha Cliath
Dublin City University

Faculty of Science and Health, Dublin City University

36

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 200 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



Dublin Zoo

41

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 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 Conservation Education Team at Stand No. W41 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@dublinzoo.ie or visit www.dublinzoo.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



ECO-UNESCO

58

We are a leading environmental education and youth organisation working to channel the passion, creativity and energy of young people into positive environmental action. Through our range of programmes and services we inspire, educate, empower and support young people to act.

ecounesco.ie



Eli Lilly Kinsale Ltd.

28

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 STEPS

9

Engineers Ireland STEPS is designed to open up the exciting possibilities which engineering offers to school children who want to make a real difference in the world. Our core programmes include Engineers Week, Engineering Your Future, Young Engineers Award and Guides Engineering Badges.

In 2025, STEPS is celebrating 25 years of operation in Ireland, and this fantastic event marks the beginning of a year of celebrating innovation, inspiring young minds, and fostering the next generation of engineers. We are proud to support such an important initiative that encourages creativity, problem-solving, and sustainable solutions in the engineering field.

www.engineersireland.ie/Schools



Environmental Protection Agency (EPA)

6

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

14

The European Commission's 'Science is Wonderful!' comes to Ireland.

We are excited to announce that the European Commission's 'Science is wonderful' programme will come back to BTYSE this January. Come and celebrate science! Meet leading researchers from across Europe and explore their ground-breaking work through interactive experiments, hands on activities, games and quizzes. Projects will include: Exploring the Invisible World – A Hands-On Journey into Microscopy, "The Incredible Brain: discover is power" and "Jump in here" using data analytics to tackle neurological diseases (part of Marie Skłodowska-Curie Actions). Teachers can find out about the EU's free resources to support learning in the classroom. Find out about joining the EU's Blue School Programme –and bring oceans into the classroom. Learn how the European Parliament works and ask us about school visits to the new 'Europe Experience' – the recently opened interactive visitors centre in the heart of Dublin (free entry).

ireland.representation.ec.europa.eu/index_en



Exam Revision

62

ExamRevision.ie is Ireland's leading study platform. With bite-sized video tutorials, PowerPoint presentations, H1 notes, quizzes and exam papers & marking schemes for the entire curriculum. We are trusted by over 150,000 students & 10,000+ teachers throughout Ireland.

In one academic year, ExamRevision has grown to 100,000+ active users. Book a demo today to find out why <https://calendly.com/examrevision-ie/organise-my-school-package>

examrevision.ie



Explorium

40

Ireland's National Sports and Science Centre

explorium.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

1-3

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



Henkel

22

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

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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



Intellectual Property Office of Ireland

7

The Intellectual Property Office of Ireland, IPOI is a statutory office operating under 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, X, LinkedIn and Instagram.

www.ipoi.gov.ie



Irish Aid at the Department of Foreign Affairs

49

Irish Aid, at the Department of Foreign Affairs, is Ireland's official development assistance programme (ODA), which aims to reduce global poverty, hunger and humanitarian need. We work with partners in more than 130 countries to provide support to people and communities around the world.

Irish Aid focuses on four key priority areas: Climate Change, Gender Equality, Humanitarian Response and Strengthening Governance.

Ireland is committed to the delivery of the United Nations Sustainable Development Goals (SDGs), a set of 17 goals to help make the world a better and fairer place by 2030.

Visit our stand to learn how Ireland, through our ODA programme is supporting people around the world and play our interactive games on the SDGs.

www.ireland.ie/en/irish-aid



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

63

The Irish Science Teachers' Association (ISTA) is the largest and most active subject association in Ireland, representing science educators nationwide. Founded in 1961, it boasts over 1,400 members across 14 branches. ISTA offers numerous opportunities for Continuing Professional Development (CPD) and keeps members informed about developments in science education through its SCIENCE journal, social media channels and website. The ISTA organises various events, competitions, and quizzes for students, and represents teachers on NCCA science syllabus committees. ISTA also maintains an active WhatsApp community with over 700 members, fostering collaboration and learning among science educators. As the professional body for science teachers in Ireland, ISTA plays a crucial role in shaping and supporting science education across the country.

www.ista.ie



Junior Achievement Ireland

54

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



The Marie Keating Foundation

53

The Marie Keating Foundation provides cancer information and cancer awareness to members of the public.

www.mariekeating.ie



Maynooth University

50

In 2024, Maynooth University has grown to over 16,000 students, including 13,700+ undergraduates and 2,300+ postgraduates. Ranked among the top three young universities in Ireland and 86th globally in the 2024 Times Higher Education (THE) rankings, Maynooth combines historic traditions with dynamic, research-led innovation.

Located just 25km from Dublin, we offer a world-class education across a wide range of disciplines, fostering lifelong learning, friendships, and personal growth. The university is grounded in values of dignity, respect, and equity, creating a vibrant, supportive community.

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



Met Éireann

25

Met Éireann's mission is to monitor, analyse and predict Ireland's weather, flooding, and climate. We do this to provide Irish society and decision-makers with world-class weather, climate, and flood services to protect life and property, and to promote wider societal and economic well-being.

Our vision is to be ready for change - preparing Ireland for changing weather and climate.

www.met.ie



Meta Platforms Ireland

15

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

42

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 at the National Disability Authority

4

The National Disability Authority 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 to promote adoption and application of Universal Design of the digital and built environments, services and systems.

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. The Centre develops advice and guidelines based on international best practice, contributes to National and European standards and highlights good practice in relation to Universal Design. We engage with a wide range of stakeholders including disabled persons organisations, educational and professional bodies to build awareness of Universal Design in Education across the education system and through continuous professional development.

universaldesign.ie



National Parks and Wildlife Service (NPWS)

39

The National Parks and Wildlife Service (NPWS) operates under the Department of Housing, Local Government and Heritage and is entrusted with safeguarding and conserving Ireland's natural heritage and biodiversity.

Our Exhibit Stand

At our exhibit stand, attendees can explore a range of exhibits, pick up information leaflets, and view posters. It's also a great opportunity to meet our dedicated staff and discuss the various activities the NPWS offers.

Education & Visitor Centres

Our NPWS Education & Visitor Centres across Ireland provide diverse activities and learning opportunities for teachers and students. Our Education Officers have crafted school programs to foster awareness, knowledge, and appreciation of Ireland's biodiversity.

National Biodiversity Action Plan

Ireland's 4th National Biodiversity Action Plan (NBAP) sets the national biodiversity agenda for the period 2023-2030, aiming to deliver transformative changes in how we value and protect nature. Developed with input from the interdepartmental Biodiversity Working Group and the independent Biodiversity Forum, the NBAP outlines a vision for 2050 where biodiversity is valued, conserved, restored, and sustainably used. The plan reflects insights and recommendations from the 2nd National Biodiversity Conference and a public consultation process, ensuring wide engagement with the plan.

www.npws.ie



An Fóram Uisce - the Water Forum

35

The Water Forum (An Fóram Uisce) was established in 2018 to provide a platform for stakeholder engagement on all matters relating to water management and the implementation of the Water Framework Directive. It consists of 26 members from a wide range of organisations and sectors with an interest in water issues, including agriculture, angling, business, community and voluntary sector, domestic water consumers, education, environment, fisheries, forestry, recreation, rivers trusts, rural water, social housing, tourism, trade unions and youth.

The Forum's statutory function is to advise 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) in relation to water management and the implementation of the Water Action Plan and the Water Framework Directive.

The Forum is chaired by Dr Matt Crowe. Twitter: @anforamuisce

www.thewaterforum.ie



The Ombudsman for Children's Office (OCO)

5

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



PTSB

16

PTSB has a long banking history in Irish communities, with roots that stretch back over 200 years. Throughout this time, its focus has been on delivering exceptional customer service and connecting with local communities, providing mortgages and community banking services. PTSB has a presence in 98 locations nationwide and is a leading provider of Retail and Business Banking services in the Irish Market, serving over 1.2 million customers. PTSB's customer promise - Altogether More Human - emphasises PTSB's intentions to bring great technology and great people together to meet customers' changing needs and deliver a better banking experience.

PTSB.ie



Quality and Qualifications Ireland (QQI)

56

Quality and Qualifications Ireland (QQI) is the state agency responsible for promoting the quality, integrity and reputation of Ireland's further and higher education system. Ensuring that learners achieve qualifications that are valued nationally and internationally and providing trusted information on the qualifications included on the National Framework of Qualifications. QQI is Ireland's National Europass Centre and the European Qualifications Framework National Coordination Point for Ireland.

www.qqi.ie



Re-turn

21

Ireland's Deposit Return Scheme.

www.re-turn.ie



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 | Raidió Teilifís Éireann

37

RTÉ is delighted to be returning to BTYSTE 2025! Some of your favourite RTÉ 2FM and RTÉ Raidió na Gaeltachta shows will be broadcasting live from our radio studio at BTYSTE 2025, along with some very special guests. During this year's opening ceremony, we are very excited to bring along RTÉ 2FM Rising artist Chubby Cat for a live performance from the main stage. Ever wondered how a radio show is broadcast on air and online? Or fancy trying out some cool digital technology?! Pop by the RTÉ Studio in the Exhibition Hall and keep up to date with RTÉ at BTYSTE on TikTok, X, Facebook and Instagram.

www.rte.ie



Rugby Players Ireland

12

Rugby Players Ireland is the representative body of professional and national rugby players in Ireland. A not-for-profit organisation, we advocate for players' rights and wellbeing. This year we will be at BTYS to promote our mental wellbeing campaign, Tackle Your Feeling (TYF) Schools. Supported by some of Ireland's best-known rugby players, TYF Schools launched in 2019 and is designed for students over 14 years old. TYF is supported by the ZZ Foundation and Zurich Ireland.

www.rugbyplayersireland.ie



Self Help Africa

47

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.

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

44

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



SSE Airtricity

29

SSE Airtricity has been harnessing our greatest natural resource for the past 25 years, providing cleaner, renewable energy for homes and businesses across the country. The company recognises that climate change is one of the greatest societal challenges of our time, and SSE Airtricity's mission is to empower and support its customers on their journeys towards a net-zero energy future. As an established and trusted energy partner, SSE Airtricity is empowering customers to switch to cleaner, greener energy supply and solutions to make businesses more sustainable.

Since 2008 SSE has invested significantly in Ireland, with a total economic contribution of more than €3.8bn to the economy. SSE owns and operates 31 onshore wind farms across the island of Ireland, totalling 700MW, capable of generating enough wind power to power over half a million homes annually and offsetting over half a billion kilos in carbon emissions.

www.sseairtricity.com



Stripe + Patch

19

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 and Stripe Press share 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.

stripe.com



makes exams easier

Studyclix

43

Studyclix is Ireland's largest study website. We makes it easier for students to study and prepare for exams. With tools and resources trusted by over 250,000 students and 90% of teachers, you can focus your study and improve your results.

Here's how Studyclix helps:

- Search by Subject and Topic: Find 40,000+ past exam questions with marking schemes.
- Interactive Quizzes: Test yourself with 20,000+ curriculum-aligned questions.
- Expert Content: Watch videos, read sample answers, and access clear study notes.
- Boost Add-On: Get extra help for Maths and Biology with bite-sized video lessons and exam tips.

Studyclix users report better grades and an average increase of 127 CAO points. Start studying smarter. Visit [studyclix.ie](https://www.studyclix.ie) today.



AGRICULTURE AND FOOD DEVELOPMENT AUTHORITY

Teagasc - Agriculture and Food Development Authority 23

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



Tozi by the Vodafone Foundation Ireland 60

Tozi is a first-of-its-kind app developed by The Foundation Ireland in collaboration with DCU and ISPC Childline to tackle the growing online issue of cyberbullying. In many countries 1 in 3 children have been a victim of some form of cyberbullying in the last year alone. Tozi is designed to empower young people and their communities to navigate the online world in a safe and positive way.

n.vodafone.ie/aboutus/foundation.html



Trinity College Dublin

Coláiste na Tríonóide, Baile Átha Cliath
The University of Dublin

Trinity College Dublin 32

Founded in 1592, Trinity College Dublin is Ireland's leading university and ranked 87th globally (QS World University Rankings 2025). Located in the heart of Dublin city, our iconic campus blends history and cutting-edge innovation, making it a unique place to study and grow. With over 22,000 students from 119 countries, Trinity offers a vibrant, international community and worldclass education across 24 academic schools. We're delighted to be ranked in the top 100 globally for Graduate Employability (QS World University Rankings 2022), with our graduates excelling in fields like science, the arts, business, and more.

At Trinity, you'll develop the skills to think independently, act responsibly, and make an impact – whatever your path.

Be inspired and discover more about Trinity: www.tcd.ie/study

www.tcd.ie



TOGETHER FOR A JUST WORLD

Trócaire 51

Trócaire envisions a just and peaceful world. We support people regardless of culture, ethnicity, gender or religion.

We work in partnership with communities in 23 countries to relieve poverty and tackle injustice. We do this thanks to the support of people all over Ireland, as well as with the help of our institutional partners. Trócaire's Development Education team will be hosting a stall at BTYSE for young people to take part in our digital water justice game, and for educators to learn more about Trócaire's resources and programme for Development Education. Trócaire's attendance is supported through Irish Aid funding.

trocaire.org



NATIONAL INSTITUTE
TECHNOLOGICAL RESEARCH

Packaging & Systems Integration Group 45

The Packaging and Systems Integration Group at the Tyndall Institute, University College Cork, is a world leading research team developing technologies for advanced semiconductor systems. The group has state-of-the-art semiconductor design and manufacturing facilities staffed by highly experienced research personnel. The group also educates PhD students and trains the future industrial workforce in next generation semiconductor technologies for use in artificial intelligence, augmented reality, medical devices, high-speed communications, remote sensing, and diagnostic systems. The group also partners with other world-leading research institutes, universities and companies with a focus on transferring their breakthrough research to industrial applications.

www.tyndall.ie



OLLSCOIL NA
GAILLIMHE
UNIVERSITY
OF GALWAY

University of Galway 34

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



Wind Energy Ireland

30

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



JORDAN YOUNG SCIENTIST
علماء الغد



YOUNG SCIENTISTS
KENYA

Young Scientist & Technology Kenya & Jordan Young Scientist & Technology

48

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 BTYSTE2025. 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.

International Competition



This year to celebrate 25 years of BT at the Young Scientist & Technology Exhibition, we have invited some international projects to take part in the exhibition. One winning project will take away a cash prize of €1,250 and we thank those who have made the trip to get involved.

Projects on display in Exhibit Hall 2

Austria

Title: BlueVision: Software for automated evaluation of histological staining

Overview: A software for semi-automated evaluation of the regeneration status of histological tendon sections has been developed. The focus of the evaluation is on the Alcian blue staining, which stains glycosaminoglycans, acidic polysaccharides that are increasingly present in defective tendon tissue. The software provides the user with parameters regarding the intensity.

Category: Technology

Student(s): Sarah Hoerl, Sarah Maultasch, Karen Chung

Denmark

Title: Music as replacement for ADHD medication

Overview: The research aims to see if music has any effect on performance when a participant shows signs of ADHD or has an official diagnosis. This was done using a memory test and mozart music, based off of priming theory and mood-arousal theory.

Category: Health & Wellbeing

Student(s): Elisabeth Bezerra Nielsen

Italy

Title: POMODOLITE

Overview: One of the main factors that pushed us towards this research is the awareness of the criticality of heavy metals for human health and environmental protection. In fact the European Directive sets the limit value in soils intended for agriculture. Our project aims to remove heavy metals such as nickel, copper, cadmium and lead from cultivated land and run-off water, using a low-cost natural zeolite. Clinoptilolite proved to be interesting both for its adsorption capacity and for the possibility of recycling. The performance of the zeolite we selected was compared with the depolluting capacity of an already tested synthetic zeolite.

Category: Chemistry, Physics & Mathematical Sciences

Student(s): Sofia Destro, Giorgia Merolli

Jordan

Title: Intracranial Tumor Detector (ICTD)

Overview: The Intracranial Tumor Detector utilizes Artificial Intelligence with Deep Learning and Convolutional Neural Networks (CNN) for image classification, ensuring no tumors go undetected. We first built a comprehensive brain MRI dataset, followed by preprocessing steps like resizing, normalizing, and augmenting the images. The data was then fed into a Neural Network that extracts and learns critical features, classifying the images based on the presence or absence of a tumor. Additionally, we developed a Graphical User Interface (GUI) for medical professionals to streamline the diagnosis process. Finally, accuracy was analyzed and improved over time, achieving a rate of over 85%.

Category: Biological & Ecological Sciences

Student(s): Wasfi Hatem Al-Rashdan, Ahmad Zakariya Shatnawi, Mohammad Abdullah AlShorman

Kenya

Title: The Sunken Cooking Jacket

Overview: A cost-effective, eco-friendly, and energy-saving improvement of the traditional jiko, made from local materials, channels smoke and fumes to reduce emissions while conserving energy and time. This renewable energy source addresses climate change and is especially beneficial for households in developing countries that rely on traditional biomass fuels.

Category: Chemistry, Physics & Mathematical Sciences

Student(s): Bradford Nyaingiri, Felix Makori

Luxembourg

Title: Creation of a Perfume and the Psychological Effect of Scents on Human Beings

Overview: We created a perfume which aims to comfort and spread childhood memories. At the same time, we analysed the emotions that overwhelmed people when they smell our perfume.

Category: Social & Behavioural Sciences

Student(s): Mariana Bou Raad, Leila Henriques Esperança Casinhas

Judges: Richard Myhill, Emer Jones Westmuckett and Professor Anthony Fagan



60 YEARS OF



1965

John Monahan



1966

Máire Cairtriona
Ní Dhomhnaill /
Mary Finn



1967

Walter Hayes R.I.P.



1968

George Andrew
Reynolds



1969

Luke Drury



1970

Maria Edgeworth



1971

Peter Short



1979

Jervis Good



1980

Karen Ruddock



1981

Catherine Conlon



1982

Martynn Sheehan



1983

William Murphy,
Gareth Clarke,
Turan Mirza



1984

Eoin Walsh



1985

Ronan McNulty



1993

Donal Keane,
Rodger Toner



1994

Jane Feehan



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



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



2013

Ciara Judge,
Emer Hickey,
Sophie Healy-Thow



2021

Greg Tarr



2022

Aditya Joshi,
Aditya Kumar



2023

Shane O'Connor,
Liam Carew



2024

Seán O'Sullivan



2025

Winner will be
announced on
Friday 10 January

INNOVATION



1972
Seán Mac Fheoraís



1973
Tadhg Begley



1974
Richard Elliott



1975
Noel Boyle



1976
Mary Kelly-Quinn



1977
Micheal Og O'Brian



1978
Donald P McDonnell



1986
Breda Maguire,
Niamh Mulvaney



1987
Emma Donnellan,
Henry Byrne



1988
Siobhan Lanigan
O'Keeffe



1989
Grace O'Connor,
Sinead Finn



1990
Anna Minchin-
Dalton



1991
Barry O'Doherty,
Daniel Dundas



1992
Elizabeth
Dowling, Jean
Byrne R.I.P.



2000
Thomas Gernon



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



2014
Paul Clarke



2015
Ian O'Sullivan,
Eimear Murphy



2016
Diana Bura,
Maria Louise
Fufezan



2017
Shane Curran



2018
Simon Meehan



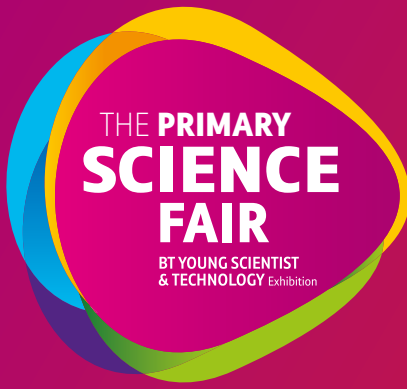
2019
Adam Kelly



2020
Alan O'Sullivan,
Cormac Harris

Discover more at
archive.btyoungscientist.com





The Primary Science Fair

The Primary Science Fair has been an exciting part of the BT Young Scientist & Technology Exhibition for 25 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 9 January

Does participating in physical activities throughout the school day increase students focus?

Christian Brothers Preparatory School, Cork

Can produce produce power?

Kill O'The Grange N.S., Dublin

Does drinking energy drinks increase your risk of developing Type 2 Diabetes and kidney problems in later life?

Scoil Mhuire NS, Ballyboden, Dublin

Tiny Victims: Simulating the Effects of Plastic on Irish Sea Life

St. Attracta's Senior National School, Dublin

Laughter: The Best Medicine?

St. Damian's N.S., Dublin

Understanding Dogs: A Scientific Exploration of Behaviour, Senses, Communication and Benefits of their Presence in the Primary School Learning Environment

St. Mary's Junior College Rathmines, Dublin

Fruit Juice- Which one is the best?

St. Mary's College Junior School, Dublin

What would happen if global sea levels decreased by 1km and how would this impact sea life?

Dun Laoghaire ETNS, Dublin

Can car

Our Lady's Grove Primary School, Dublin

Bacteria all around us

Our Lady's Grove Primary School, Dublin

Music to my plant's ears!

Mercy Convent Primary School, Kildare

What makes a Rocket Propel?

St Corbans BNS, Kildare

Healthy School Lunches

S N Moin Ruadh, Kilkenny

The Science behind breaking World Records

Barna National School, Limerick

Non-Branded vs Branded.....better for our budget but is it better for our health?

Scoil Naomh Bríd, Louth

Allergies

Quignamanger NS, Mayo

How much air is in our favourite crisps?

Quignamanger NS, Mayo

Shopping assistance for blind/deaf people

Quignamanger NS, Mayo

Can you make plastic out of milk?

Clonown NS, Roscommon

Does screentime affect our concentration?

Scoil na Maighne, Tipperary

Myth Busting - The 5 Second Rule

Bunscoil Loreto, Wexford

Where is the Germiest Place in Our School?

Bunscoil Loreto, Wexford

The Nutritional Value and quality of Brand Name food products in comparison to a supermarkets' own brand competing product.

Bunscoil Loreto, Wexford

Light Fantastic

St Colman's N.S. Ballindaggin, Wexford

Does Music Help Us Concentrate?

Scoil Naomh Bríde, Wexford



Friday 10 January

Has the return logo on plastic bottles encouraged people to recycle more?

CBC Preparatory School, Cork

Let's Go with Renewable Energy

Scoil Eoin Baiste, Donegal

Can a Seed Grow with Different Liquids Other than Water?

Scoil San Treasa, Dublin

How well do you know your local park?

Scoil San Treasa, Dublin

Flavour: Tastebuds, brain or both?

Pope John Paul II National School, Dublin

Feeling Blue or Seeing Red? - The Impact of Colour on Emotional Response

Pope John Paul II National School, Dublin

Thrills and Chills: The Science Behind Roller Coaster Motion

Pope John Paul II National School, Dublin

Taste Test Showdown - Store Brand Vs Name Brand Food

Pope John Paul II National School, Dublin

How does the material/shape of a boat affect how well it floats?

Rush National School, Dublin

What makes flavoured water flavoured but still clear?

St. Kilian's Senior National School, Dublin

Let's Keep Our Brains Moving!

St. Kilian's Senior National School, Dublin

Can we affect our memory recall by changing the font style, colour or including images in the information we are learning?

St. Andrew's College Junior School, Dublin

Does the colour of food affect whether we like it or not?

St. Andrew's College Junior School, Dublin

Organic versus non organic food, what is better?

St. Andrew's College Junior School, Dublin

Dizzy in the Digital World - Exploring Motion Sickness with VR

Pope John Paul II National School, Dublin

Mosquitos - friend or foe?

St. Andrew's College Junior School, Dublin

The Science of Sustainable Fashion: Creating Clothes from Waste Materials

St Brigids Senior Girls School, Dublin

Does colour affect your mood?

Our Lady of the Wayside NS Kilternan, Dublin

How does processed food affect the human body vs organic foods

St. Andrew's College Junior School, Dublin

Which material makes the best hot water insulator?

Dulargy NS, Louth

Does heart rate return to normal faster in children that play sport or don't play sport

Dulargy NS, Louth

Material Car Race Test

St Paul's SNS Drogheda, Louth

Anatomy of the Hand

St Paul's SNS Drogheda, Louth

Solar Oven

St Paul's SNS Drogheda, Louth

Foil-Detecting Robot Car

St Paul's SNS Drogheda, Louth

The Study and Extraction of D.N.A.

Dunderry N.S., Meath

The Impact of Musical Genres on Phonotropism

St. Michael's N.S. Kill, Meath

The Neuroscience of Music- Analysing how music affects performance

Scoil Aonghusa Special School Cashel, Tipperary

Is seeing believing? What do our eyes see?

S N Padraig Naofa Courtnacuddy, Wexford

To eat, or not to eat? Does the timing of meals impact on sports performance?

St Saviour's NS, Wicklow

Bacteria Powered Calculator

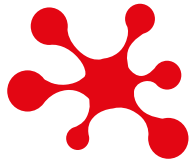
St Brigid's NS, Wicklow

Finding the breaking point - exploring how different materials and their qualities can prevent eggs from cracking

St. Laurence's NS, Greystones, Wicklow

Bridging the Gap! (Bridging the Gap Between the Design and Function of Bridges)

St. Laurence's NS, Greystones, Wicklow



THE BT YOUNG SCIENTIST
BUSINESS BOOTCAMP

BT Young Scientist Business Bootcamp

Programme for students

A number of the exhibiting intermediate and senior students from the 2025 BT Young Scientist & Technology Exhibition will be invited to take part in a BT Young Scientist Business Bootcamp from 3 to 6 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.





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.



FORMER PARTICIPANT

“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.”



BT YS Bootcamp 2024 highlights

https://youtu.be/yjXC97GOAb0?si=cKjtxryfvq4x2FS_



in association with UCD Innovate





Events schedule

Thursday 9 January

	BT ARENA	CONCERT HALL	CLYDE ROOM FOYER
09:00	3D Theatre from 2021/2022		
09:30	Circus 250 What Stuff Does		
10:00		Through the cosmos 3D	Global Goals (Drumming Workshop)
10:15			
10:30	Mark the Science Guy: Sports Tech		
10:45			
11:00		Through the cosmos 3D	Global Goals (Drumming Workshop)
11:15	Mark the Science Guy: Extreme Adventures		
11:30			
11:45			
12:00	Circus 250 What Stuff Does		Global Goals (Drumming Workshop)
12:15		Through the cosmos 3D	
12:30			
12:45	Mark the Science Guy: Extreme Adventures		
13:00			
13:15		Through the cosmos 3D	
13:30	Mark the Science Guy: Sports Tech		
13:45			
14:00			Global Goals (Drumming Workshop)
14:15	Circus 250 What Stuff Does	Through the cosmos 3D	
14:30			
14:45			
15:00			Global Goals (Drumming Workshop)
15:15	Mark the Science Guy: Extreme Adventures		
15:30			
15:45			
16:00			Global Goals (Drumming Workshop)
16:15			
16:30			

Events schedule

Friday 10 January



	BT ARENA	CONCERT HALL	CLYDE ROOM FOYER
09:00	3D Theatre from 2021/2022		
09:30	Circus 250 What Stuff Does		
10:00		Through the cosmos 3D	Global Goals (Drumming Workshop)
10:15			
10:30	Mark the Science Guy: Sports Tech		
10:45			
11:00		Through the cosmos 3D	Global Goals (Drumming Workshop)
11:15	Mark the Science Guy: Extreme Adventures		
11:30			
11:45			
12:00	Circus 250 What Stuff Does		Global Goals (Drumming Workshop)
12:15		Through the cosmos 3D	
12:30			
12:45	Mark the Science Guy: Extreme Adventures		
13:00			
13:15		Through the cosmos 3D	
13:30	Mark the Science Guy: Sports Tech		
13:45			
14:00			Global Goals (Drumming Workshop)
14:15	Circus 250 What Stuff Does	Through the cosmos 3D	
14:30			
14:45			
15:00			Global Goals (Drumming Workshop)
15:15	Mark the Science Guy: Extreme Adventures		
15:30			
15:45			
16:00			Global Goals (Drumming Workshop)
16:15			
16:30			



Events schedule

Saturday 11 January

	BT ARENA	CONCERT HALL	CLYDE ROOM FOYER
09:00	3D Theatre from 2021/2022		
09:30		Through the cosmos 3D	
09:45	Circus 250 What Stuff Does		
10:00			
10:15			
10:30		Through the cosmos 3D	
10:45	Mark the Science Guy: Sports Tech		
11:00			Global Goals (Drumming Workshop)
11:15			
11:30	Mark the Science Guy: Extreme Adventures	Through the cosmos 3D	
11:45			
12:00			
12:15	Circus 250 What Stuff Does		
12:30		Through the cosmos 3D	
12:45			
13:00			Global Goals (Drumming Workshop)
13:15	Mark the Science Guy: Extreme Adventures		
13:30		Through the cosmos 3D	
13:45			
14:00			
14:15	Mark the Science Guy: Sports Tech		
14:30		International prize presentation	
14:45			
15:00	Circus 250 What Stuff Does		Global Goals (Drumming Workshop)
15:15			
15:30			
15:45			
16:00			
16:30	Mark the Science Guy: Extreme Adventures		



**BT YOUNG SCIENTIST
& TECHNOLOGY Exhibition**

BT - THE CHANGE MAKERS

2001



BT become the custodian, organiser and sponsor of the Young Scientist Exhibition. With the arrival of BT came the introduction of the Technology category and the launch of the inaugural Primary Science Fair which is run alongside the main exhibition each year.

2006



BT introduces an Accommodation Grant Scheme to help students and schools with expenses incurred when travelling to the exhibition. To date BT has awarded almost €1.5m to schools that are more than 70km from venue and for BTYSTE2025 extended the scheme to all DEIS schools.

2010



The first BT Young Scientist Business Bootcamp is held in Dublin. Bootcamp is a four-day business commercialisation and entrepreneurship mentoring programme where 30 BTYSTE participating students are selected to participate each year.

2014



The 50th anniversary of the Young Scientist. The BT Young Scientist Archive was launched and BT commissioned a commemorative book to celebrate the half century of this world renowned exhibition.

2015



The BTYSTE introduces Irish University Association scholarships for senior winners and An Post commissions a Young Scientist Commemorative Stamp which was unveiled at the exhibition in this year.

2018



The first Young Scientist Exhibition in Kenya takes place and EUCYS is hosted in Ireland for the 2nd time in its 35 year history. The competition was hosted by the Young Scientist charitable trust and welcomed 134 students from 38 countries.

2021



As the world adapts to a global pandemic, the first ever Virtual BTYSTE takes place becoming a global success welcoming visitors from 77 countries. The virtual exhibition becomes a multiple award-winning show, winning both a PRII award and Covid Comms award.

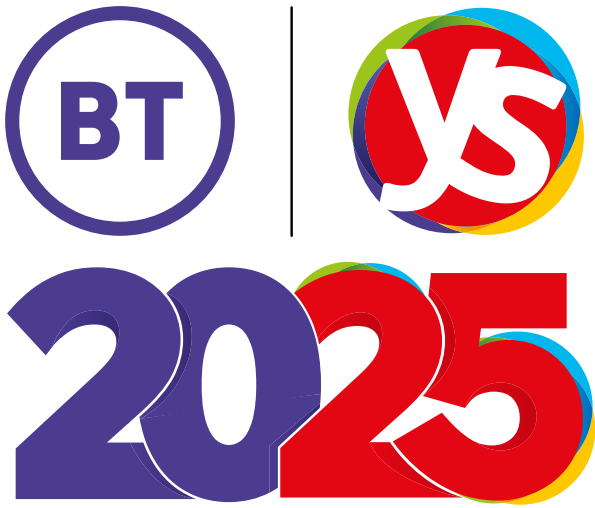


2024



The 60th anniversary of the Young Scientist is marked by the introduction of a new category, Health & Wellbeing.

BT • CELEBRATING 25 YEARS @BTYSTE



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. That's why for 25 years we have been 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 the Republic of 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.

BT in 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.

Responsible Business

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.

BT has achieved the Business Working Responsibly Mark®, the official standard of excellence for sustainability and corporate social responsibility. We were one of the inaugural Irish signatories of Business in the Community's Low Carbon Pledge® and the first signatory in Ireland of Elevate, their Inclusive Workplace Pledge®.

We have been recognised as one of Ireland's healthiest places to work for six 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.



BT • CELEBRATING 25 YEARS @BTYSTE



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www.btyoungscientist.com

