





10th - 13th January / RDS, Dublin

ITSTARTSHERE



























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Social Networking at BTYSTE 2018

Keep in contact with what is going on at BTYSTE through Twitter and Facebook, why not put some comments up there yourself!

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

Please use the hashtag #BTYSTE

#ITSTARTSHERE













♠ O O O O O BTYSTE

Get the app

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

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









Welcome to the 2018 BT Young Scientist & Technology Exhibition

It is with great pleasure I welcome you to the 54th BT Young Scientist & Technology Exhibition. Since its foundation by Dr. Tony Scott and the late Fr. Tom Burke in the 1960s, close to 90,000 students have entered their creative and imaginative ideas to this prestigious event.

As a leading technology company we feel that it is vital to foster an interest in Science, Technology, Engineering and Mathematics right across the country to ensure our cities and towns have the talent required to move forward as a society. This is something we are proud to do with our investment each year with the BT Young Scientist & Technology Exhibition.

At BT, we are passionate about promoting women in technology and I am pleased to report that this year over 60% of project entries and qualified projects are from female students, with a few specific projects on what influences girls to study STEM.

This year was as competitive as ever, with an impressive 2,031 projects submitted by students across the island of Ireland. We are particularly satisfied to know that every county was represented by a submission. After much debate by our esteemed judges, we announced 550 finalist projects in October to an incredible group of students you will meet here this week.

Every year the quality of projects amazes myself, the judges and the entire team at BT. The energy, passion and dedication the students, teachers and parents apply to this journey is incredible to witness. The road to the BT Young Scientist & Technology Exhibition can start in the classroom, at home or in the most unlikely of situations but it is the student's dedication and the

support they receive from their network of teachers, parents and friends that make their idea become a reality.

The projects you will see cover a wide variety of areas from new studies and analysis which forces us to look at a situation differently to technology developments that solve an everyday issue and clever use of mathematics that present unique ideas never seen before. I would encourage you all to not only see as many projects as you can but to spend time with the students and chat to them about the journey they went on with their project.

Over the course of the week, visitors will see how all the projects vary in a range of complexity. From the simplest of ideas to complex equations, the BT Young Scientist & Technology Exhibition continuously acts as an excellent platform to encourage students of all levels to take an interest in the areas of Science, Technology, Engineering and Mathematics.

All the students should be incredibly proud of entering, qualifying and making it here this week. They may not know it now but they have developed skills along this process that will benefit them throughout their entire careers.

The BT Young Scientist & Technology Exhibition is a wonderful experience for students, teachers and the public at large. It is also worth noting that the 2018 overall winner will represent Ireland in the European Union Contest for Young Scientists when it comes to Dublin in September.

For some students the journey of having a project displayed at our Exhibition may have started this year but for others, ideas have been churning from when they were really young. With this in mind, I am delighted to welcome 2,200 junior scientists to the RDS Primary Science Fair. The Fair showcases STEM investigations (science, technology, engineering and maths) undertaken by 4th-6th class and Key Stage 2 primary school-aged children across Ireland.

I would also like to once again pay my gratitude and thanks to our judges and also our partners including, the Department of Education and Skills in the Republic of Ireland, Department of Education in Northern Ireland, Analog Devices, Intel, RTÉ and Perrigo, without their support we could not make this exceptional event a reality.

Show

Shay Walsh Managing Director, BT Ireland

Proud organiser of the BT Young Scientist & Technology Exhibition.







The BT Young Scientist & Technology Exhibition 2018 is proudly sponsored and supported by;









Lear







































INTELLECTUAL VENTURES®













































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connecting women in technology



























































































The awards

Main awards

BT Young Scientist & Technologist(s) of the Year 2018

Individual or Group

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

Best Individual or Best Group

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

Runner-up Individual and Runners-up Group

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

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

Special awards

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

Category awards

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



Social & Behavioural Sciences

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



Chemical, Physical & **Mathematical Sciences**

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



Technology

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



Biological & Ecological Sciences

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

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







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.





Travel awards

Student awards

Analog Devices Student Award

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

Intel Student Award

This award is presented to an individual or group for outstanding work exhibited in the Chemical, Physical & Mathematical Sciences category, except where the project has been selected as BT Young Scientist & Technologist(s) of the Year. The prize is an all-expenses paid trip to the USA to compete in the Intel International Science and Engineering Fair (ISEF) in Pittsburgh, Pennsylvania, May 13-18. 2018. The teacher/mentor of the winner(s) of this award will also receive an all-expenses paid trip to ISEF.

Perrigo Student Award

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

RTÉ Student Award

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

Rev Dr Tom Burke bursary

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

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

Founders medal

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

Educator of excellence awards

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

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

Perrigo Educator of Excellence - Biological and Ecological Sciences

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

BT Educator of Excellence - Social and Behavioural Sciences The winner receives a bursary of €2,000 and a BT Trophy.

Intel Educator of Excellence Award - Chemical, Physical and **Mathematical Sciences**

The winner will receive the Intel trophy and an all-expenses paid trip to the USA to attend the Intel International Science and Engineering Fair which takes place in Pittsburgh, Pennsylvania, May 13-18, 2018.



















Special awards

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

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

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

Schools awards

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





























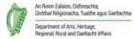














































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BT Young Scientist & Technology Exhibition Judges

Social & Behavioural Sciences



Siobhan Aherne Prof. Joe Barry Dr Mairin Boland Dr Barry Brunt Annette Cahalane Prof. Catherine Comiskey Prof. Regina Connolly Dr Tara Cusack Dr Jean Cushen Conor Faughnan

Dr Domnall Fleming Dr Yseult Freeney Dr Jones Irwin Dr Mary Ivers Dr Angela Leahy Roisin Lyons Eoin MacCuirc Dr Maeve Martin Prof. Des McCafferty Michelle McCarthy-Severs

Lynda McSweeney Dr Elizabeth Nixon Dr Eoin O'Mahony Aidan Ryan David Silke Dr Victoria Simms Dr Sinead Smyth Prof. Anthony Staines

Chemical, Physical & Mathematical Sciences



Prof. Stephen Connon Prof. Sean Corish Prof. Padraig Dunne Prof. Orla Feely Prof. Pat Guiry Dr Graeme Horley

Prof. Peter Lynch Dr Michael McGrath Prof. Ronan McNultv ★ 1985 Dr Maria Meehan Dr Aoibhinn Ni Shuilleabhain Dr Martina Nolan-Jones

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

Technology



Julie Byrne Bernie Capraro Prof. Sarah Jane Delany John Dunnion Leonard Hobbs Barry Kennedy

Dr Fidelma Butler

Dr Stephen Butler

Prof. Ann Cullinane

Prof. Michael Doherty

Noel King Aaron McCormack Dr Diarmuid O'Brien Tom O'Dwyer Brian O'Mara Ann O'Sullivan

Julie Spillane Dr Peter Taylor ★ 2001 Anna-Marie Turley

Biological & Ecological Sciences



Prof. Liam Dolan Dr Evelyn Doyle Prof. Marie Guidon Prof. Des Higgins

Ruth Murphy

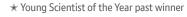
Dr Colin Kelleher Mary Kelly-Quinn ★ 1976 Prof. Grace McCormack Prof. Jennifer McElwain Prof. Deirdre McGrath Dr John Monahan ★ 1965 Prof. Niall Moyna Dr Tadhg O Croinin

Special Awards Chairperson

Dr Richard O Hanlon Prof. John O'Halloran Prof. Donal O'Shea Kathy O'Boyle Prof. John Quinn Dr Fiona Wilson

Professor Eoin O'Neill

BT Chairperson





2018 Projects - quick search



Project category

Social and Behavioural Sciences

1100 - 1720

Chemical, Physical and **Mathematical Sciences**

2100 - 2608

Technology

3100 - 3607

Biological and **Ecological Sciences**

4100 - 4614

School name/County

Antrim	
Fort Hill College	3505
South Eastern Regional College - Lis	sburn 4611
St Killian's College	3400, 3600, 3607
Wellington College	2200
Armagh	
St Catherine's College	4426
Carlow	
Gaelcholáiste Cheatharlach	1577, 4561
Presentation de la Salle College	3109
Cavan	
Breifne College	1503
Colaiste Dun an Ri	1101, 1104, 1112
	1413, 1415, 1424, 4414
St Bricin's Vocational School	1521, 1714
Virginia College	1535
Clare	
Mary Immaculate Secondary School	
Mary Immaculate Secondary School - Lisdoonvarna 1225	, 2206, 2302, 4100, 4102
Mary Immaculate Secondary School - Lisdoonvarna 1225 4104	, 2206, 2302, 4100, 4102 , 4208, 4221, 4311, 4422
Mary Immaculate Secondary School - Lisdoonvarna 1225 4104 Meánscoil Na Mbráithre	, 2206, 2302, 4100, 4102 , 4208, 4221, 4311, 4422 1599, 3213
Mary Immaculate Secondary School - Lisdoonvarna 1225 4104 Meánscoil Na Mbráithre Scoil Mhuire - Ennistymon	1, 2206, 2302, 4100, 4102 1, 4208, 4221, 4311, 4422 1599, 3213 2513
Mary Immaculate Secondary School - Lisdoonvarna 1225 4104 Meánscoil Na Mbráithre Scoil Mhuire - Ennistymon St. Joseph's Secondary School	1, 2206, 2302, 4100, 4102 1, 4208, 4221, 4311, 4422 1599, 3213 2513 4204
Mary Immaculate Secondary School - Lisdoonvarna 1225 4104 Meánscoil Na Mbráithre Scoil Mhuire - Ennistymon St. Joseph's Secondary School St. Joseph's Secondary School - Tulk	1, 2206, 2302, 4100, 4102 1, 4208, 4221, 4311, 4422 1599, 3213 2513 4204
Mary Immaculate Secondary School - Lisdoonvarna 1225 4104 Meánscoil Na Mbráithre Scoil Mhuire - Ennistymon St. Joseph's Secondary School St. Joseph's Secondary School - Tulk	1, 2206, 2302, 4100, 4102 2, 4208, 4221, 4311, 4422 1599, 3213 2513 4204 a 4537
Mary Immaculate Secondary School - Lisdoonvarna 1225 4104 Meánscoil Na Mbráithre Scoil Mhuire - Ennistymon St. Joseph's Secondary School St. Joseph's Secondary School - Tulla Cork Ballincollig Community School	1, 2206, 2302, 4100, 4102 4, 4208, 4221, 4311, 4422 1599, 3213 2513 4204 a 4537
Mary Immaculate Secondary School - Lisdoonvarna 1225 4104 Meánscoil Na Mbráithre Scoil Mhuire - Ennistymon St. Joseph's Secondary School St. Joseph's Secondary School - Tulk Cork Ballincollig Community School Bandon Grammar School	2206, 2302, 4100, 4102 4, 4208, 4221, 4311, 4422 1599, 3213 2513 4204 4537 4417 1107, 1115, 1575, 3215
Mary Immaculate Secondary School - Lisdoonvarna 1225 4104 Meánscoil Na Mbráithre Scoil Mhuire - Ennistymon St. Joseph's Secondary School St. Joseph's Secondary School - Tulk Cork Ballincollig Community School Bandon Grammar School Carrigtwohill Community College	2006, 2302, 4100, 4102 4, 4208, 4221, 4311, 4422 1599, 3213 2513 4204 4337 4417 1107, 1115, 1575, 3215 4411
Mary Immaculate Secondary School - Lisdoonvarna 1225 4104 Meánscoil Na Mbráithre Scoil Mhuire - Ennistymon St. Joseph's Secondary School St. Joseph's Secondary School - Tulla Cork Ballincollig Community School Bandon Grammar School Carrigtwohill Community College Christ King Girls Secondary School	4417 1107, 1115, 1575, 3215 4411 1222, 1304, 1602, 4579
Mary Immaculate Secondary School - Lisdoonvarna 1225 4104 Meánscoil Na Mbráithre Scoil Mhuire - Ennistymon St. Joseph's Secondary School St. Joseph's Secondary School - Tulk Cork Ballincollig Community School Bandon Grammar School Carrigtwohill Community College Christ King Girls Secondary School Clonakilty Community College	4417 1107, 1115, 1575, 3215 421, 4304, 4537 2513 4204 4537
Mary Immaculate Secondary School - Lisdoonvarna 1225 4104 Meánscoil Na Mbráithre Scoil Mhuire - Ennistymon St. Joseph's Secondary School St. Joseph's Secondary School - Tulla Cork Ballincollig Community School Bandon Grammar School Carrigtwohill Community College Christ King Girls Secondary School	2206, 2302, 4100, 4102 4, 4208, 4221, 4311, 4422 1599, 3213 2513 4204 a 4537 4417 1107, 1115, 1575, 3215 4411 1222, 1304, 1602, 4579

Coláiste Choilm	1504,					
	3507,	3515,	3522,			
					4536,	
Coláiste Muire - Crossl	naven			1206,	1216,	3301
Coláiste Na Toirbhirte				1430,	1539,	1590
Coláiste Pobal Bheann	trai				1567,	4535
Colaiste Treasa - Kantı					1516,	
		2502,	4206,	4303,	4508,	4513
Douglas Community S	chool					4416
Gaelcholáiste Mhuire					3517,	4547
Glanmire Community	College					4527
Kinsale Community Sc					1114,	
					1519,	
					3403,	
				4403,	4412,	
Maria Immaculata Cor	nmunity	Colleg	e			4553
Midleton College					1563,	
Millstreet Community	School		1511,	1578,	3521,	4557
Mount Mercy College					2208,	4524
Mount St Michael					4217,	4565
Nagle Rice Secondary	School					1547
North Monastery Seco	ondary S	chool		3303,	3415,	3603
Pobalscoil na Tríonóid	е				1405,	1517
Presentation College -	Cork			1411,	1429,	4103
Presentation Seconda	ry Schoc	ol – Mit	chelsto	wn		4559
Sacred Heart Seconda	ry Schoo	ol			4549,	4563
Schull Community Col	lege		1556,	1702,	1711,	2307
Scoil Mhuire - Kanturl	(4209,	4540,	4572
Scoil Mhuire gan Smál	- Blarne	ey		1417,	3211,	3409
Scoil na mBráithre Chr	íostaí					1713
Skibbereen Communit	y Schoo	l				4577
St Aloysius College - C	arrigtwo	hill		2213,	3526,	
					4568,	4574
St Aloysius School						1407



School name/County

St Francis Capuchin College	1502
St Mary's High School	1559
St Mary's Secondary School - Macroom 141 1603, 3212, 441	9, 1514, 1568, .5, 4512, 4525
St Mary's Secondary School - Mallow	2606, 4421
St. Brogan's College	2402
Donegal	
Coláiste Ailigh 1302, 2218, 330	08, 3405, 4105
Deele College	1513
Gaelcholáiste Chineál Eoghain	1529
Magh Ene College 1526, 1596, 3207, 452	1, 4600, 4603
Pobalscoil Ghaoth Dobhair 1414, 152	24, 4406, 4423
Rosses Community School	1522
St Columba's Comprehensive School	2518
Down	
New-Bridge Integrated College	3209
South Eastern Regional College - Bangor Campu	s 4605,4614
Dublin	
Adamstown Community College	1204, 1720
Alexandra College	3302, 3509
Ardgillan Community College	4554
Ardscoil Rís - Dublin	1228
Belvedere College	1571
Blackrock College	2107, 2215
	2107, 2215 2516
Blackrock College	
Blackrock College Cabinteely Community School	2516
Blackrock College Cabinteely Community School Castleknock College	2516 1108
Blackrock College Cabinteely Community School Castleknock College Castleknock Community College Coláiste Chilliain	2516 1108 4400
Blackrock College Cabinteely Community School Castleknock College Castleknock Community College Coláiste Chilliain Coláiste Eoin 210	2516 1108 4400 1557, 1565
Blackrock College Cabinteely Community School Castleknock College Castleknock Community College Coláiste Chilliain Coláiste Eoin 210	2516 1108 4400 1557, 1565 01, 4219, 4534
Blackrock College Cabinteely Community School Castleknock College Castleknock Community College Coláiste Chilliain Coláiste Eoin 210 Coláiste losagáin 151	2516 1108 4400 1557, 1565 01, 4219, 4534 .0, 4570, 4571
Blackrock College Cabinteely Community School Castleknock College Castleknock Community College Coláiste Chilliain Coláiste Eoin 210 Coláiste losagáin 151 Coláiste Phádraig – Lucan Colaiste Pobail Setanta	2516 1108 4400 1557, 1565 01, 4219, 4534 .0, 4570, 4571 2304, 2607
Blackrock College Cabinteely Community School Castleknock College Castleknock Community College Coláiste Chilliain Coláiste Eoin 210 Coláiste losagáin 151 Coláiste Phádraig - Lucan Colaiste Pobail Setanta Dominican College	2516 1108 4400 1557, 1565 01, 4219, 4534 .0, 4570, 4571 2304, 2607 1507, 1540
Blackrock College Cabinteely Community School Castleknock College Castleknock Community College Coláiste Chilliain Coláiste Eoin 210 Coláiste losagáin 151 Coláiste Phádraig - Lucan Colaiste Pobail Setanta Dominican College	2516 1108 4400 1557, 1565 01, 4219, 4534 .0, 4570, 4571 2304, 2607 1507, 1540 2605
Blackrock College Cabinteely Community School Castleknock College Castleknock Community College Coláiste Chilliain Coláiste Eoin 210 Coláiste Iosagáin 151 Coláiste Phádraig - Lucan Colaiste Pobail Setanta Dominican College Dominican College - Drumcondra 130	2516 1108 4400 1557, 1565 01, 4219, 4534 .0, 4570, 4571 2304, 2607 1507, 1540 2605 08, 1588, 4545
Blackrock College Cabinteely Community School Castleknock College Castleknock Community College Coláiste Chilliain Coláiste Eoin 210 Coláiste losagáin 151 Coláiste Phádraig - Lucan Colaiste Pobail Setanta Dominican College Dominican College - Drumcondra 130 Gaelcholáiste Reachrann	2516 1108 4400 1557, 1565 01, 4219, 4534 .0, 4570, 4571 2304, 2607 1507, 1540 2605 08, 1588, 4545 4214

Le Chéile Secondary School	1594
Loreto Abbey Secondary School 1	1544, 4212
Loreto College - Foxrock	4425
Loreto College - St Stephens Green 1201, 1301, 1	520, 4205
Loreto High School 1212, 1220, 1223, 2	505, 4562
	210, 4413
	1544, 4578
Marian College	4602
Mount Anville Secondary School	4427
Mount Sackville Secondary School	1416
Muckross Park College	4555
Phobailscoil Iosolde 2203, 2207, 2	2305, 3204 1300, 4310
	2600, 3401
Ringsend College	1421
	2520, 4216
	2105, 2205
	2404, 2514
	1300, 3508
	1426
St Joseph's Secondary School	1426
St Louis High School	2214
St Marys College - C.S.Sp.	3200
St Mary's Secondary School	1545
	1113, 3305
St Pauls College	2217
	2102, 2508
Sutton Park School 2201, 3104, 4	
Synge Street CBS 2103, 2109, 2204, 2	
Terenure College	2511
The Kings Hospital	4502
Trinity Comprehensive School	1592
Wesley College - Ballinteer	4610
Galway	
Calasanctius College	3208
Coláiste Bhaile Chláir 1423, 1	1553, 3523
Coláiste lognáid S.J.	4419
Coláiste Mhuire - Ballygar	1580
Dominican College - Galway	1403











2018 Projects - quick search



School name/County

Gairmscoil na bPiarsach	1700, 1707
Portumna Community School	1208, 1418, 1501, 1573
	4510, 4531
Presentation College - Athenry	3408
Seamount College	3210
St Raphaels College	4556
St. Mary's College	1708, 1717
Yeats College	4302
Kerry	
C.B.S. Secondary School	3501
Coláiste Bhréanainn	1704, 4404
Comprehensive School - Tarbert	1518, 3519
Gaelcholáiste Chiarraí	2519, 4543
Killorglin Community College	1203, 3100, 3417, 4200
Mercy Secondary School	1218, 1525, 1710, 4215
St. Brigid's Secondary School	1591
Kildare	
Celbridge Community School	3412
Coláiste Naomh Mhuire	1226, 1582
Maynooth Education Campus	1111, 1589, 3414
Patrician Secondary School - Newbr	idge 2308
Salesian College - Celbridge	3216
Scoil Mhuire Community School	2602, 4509
St Conleth's Vocational School	3110
St Wolstan's Community School	1561
Kilkenny	
Castlecomer Community School	1410, 1537, 1558
	4523, 4551
Coláiste Eamann Rís	4539
Coláiste Pobal Osraí - Kilkenny	1427
Loreto Secondary School - Kilkenny 1562, 1581	1512, 1536
Meánscoil na mBráithre Criostaí	1508, 1551
St Kieran's College	4515
Laois	
Heywood Community School	1306, 1538, 1709, 2506 3307, 4305
Leitrim	
Ballinamore Community School	1506

Mohill Community College					2303
St. Clare's Comprehensive Sch	nool	3205,	4201,	4213,	4514
Limerick					
Ardscoil Ris - Limerick	1210,	1401,	1560,	4528,	4548
Castletroy College				2212,	3102
Coláiste Chiaráin					4418
Colaiste Ide and Iosef					1422
Coláiste lósaef	1500,	1546,		1597, 3201,	
Colaiste Mhuire - Askeaton					3606
Colaiste Nano Nagle					1515
Crescent College Comprehens	sive				1715
Desmond College - Limerick		1207,		2108, 3502,	
Gaelcholáiste Luímnigh			1425,	2401,	4606
Hazelwood College				1586,	3406
John The Baptist Community	School			1541, 1587,	
Laurel Hill Coláiste FCJ					1543
Laurel Hill Secondary School	FCJ			1570,	3511
Salesian Secondary College, F	Pallaskei	nry	3605,	4542,	4576
Scoil Mhuire agus Ide					3510
Thomond Community College	9			1564,	3520
Londonderry					
Coleraine Grammar				2210,	4309
Loreto College Coleraine			2306,	2604,	2608
Oakgrove Integrated College					1701
St Mary's College		2100,	2403,	2601,	4503
Longford					
Ardscoil Phadraig					4558
Ballymahon Vocational School	ol				1574
Lanesboro Community Colleg	e	1106,	1110,	1305,	1712
Meán Scoil Muire					1705
Louth					
Bush Post Primary School 3518, 4608			1530,	1566,	1604
De La Salle College - Dundalk				1505,	1598
Our Ladys College - Droghed	a				2106
St Vincent's Secondary School	ol	1408,	1509,	4516,	4601



School name/County

Mayo	
Ballinrobe Community School	1229
Sacred Heart School	1213
Sancta Maria College	4306
St. Mary's Secondary School	4552, 4575
Meath	
Beaufort College	3105
Loreto Secondary School - Navan	1584, 1719, 4211
St Patrick's Classical School	3525
St Peter's College - Dunboyne	3407
St. Joseph's Secondary School	4607
Monaghan	
Coláiste Oiriall	4522
Offaly	
Colaiste Choilm	4304
Gallen Community School	3107
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St Nathy's College Sligo Jesus & Mary Secondary School Mercy College Summerhill College Ursuline College Tipperary Cistercian College Coláiste Mhuire Co-Ed	4207, 4409, 4518 1402 2216, 4223 1718, 4613 2309 3, 1593, 2504, 3217 1523, 4307, 4546 1103
St Nathy's College Sligo Jesus & Mary Secondary School Mercy College Summerhill College Ursuline College Tipperary Cistercian College Coláiste Mhuire Co-Ed Colaiste Phobáil Rós Cré	4207, 4409, 4518 1402 2216, 4223 1718, 4613 2309 3, 1593, 2504, 3217 1523, 4307, 4546 1103 3601
St Nathy's College Sligo Jesus & Mary Secondary School Mercy College Summerhill College Ursuline College 1533, 1583 Tipperary Cistercian College Coláiste Mhuire Co-Ed Colaiste Phobáil Rós Cré Comeragh College	4207, 4409, 4518 1402 2216, 4223 1718, 4613 2309 3, 1593, 2504, 3217 1523, 4307, 4546 1103 3601 1432, 1532
St Nathy's College Sligo Jesus & Mary Secondary School Mercy College Summerhill College Ursuline College 1533, 1583 Tipperary Cistercian College Coláiste Mhuire Co-Ed Colaiste Phobáil Rós Cré Comeragh College Our Ladys Secondary School	4207, 4409, 4518 1402 2216, 4223 1718, 4613 2309 3, 1593, 2504, 3217 1523, 4307, 4546 1103 3601 1432, 1532 4402
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PROJECT QUICK SEARCH IS ALSO AVAILABLE ON OUR APP...



















Social & Behavioural Sciences

JUNIOR INDIVIDUAL

Title: A Statistical Analysis of Dental Phobia And Anxiety Prevalence And The Effects They Have On Regular Attendance At The Dentist.

Overview: My project aims to identify the causes of dental phobia and anxiety and its prevalence, as well as the affects it has on regular attendance.

School: Kinsale Community School

County: Cork **Teacher:** Shaun Holly Student(s): Lily Fitzgerald

Title: Processed meat not so neat Overview: My project is about the dangers of processed meats and the health risks associated with processed meats. I want to investigate people's knowledge on this.

School: Colaiste Dun an Ri

County: Cavan

Teacher: Megan O' Brien Student(s): Jessica Dodd

1102

Title: A statistical analysis of the impact of internet parenting style, parental attitude and family functionality on the susceptibility of an adolescent to internet addiction.

Overview: This project aims to investigate the effect that internet parenting style, parental attitude and family functionality has on an adolescents susceptibility to internet addiction.

School: Colaiste Treasa - Kanturk

County: Cork

Teacher: Derry O'Donovan Student(s): Isobel Hynes

1103

Title: Analysing the effect on first year students' positivity using 'Three Good Things'

Overview: The purpose of this project is to analyse the effect on first year students' positivity using a programme called 'Three Good Things'.

School: Coláiste Mhuire Co-Ed County: Tipperary Teacher: Mary C Ryan Student(s): Jack Kennedy

Title: Rural Roundabout Wreckage: A statistical investigation to examine and improve the current driving practices in my local area

Overview: I wish to investigate whether the inhabitants of Kingscourt and people who drive through the town use the four roundabout on our Main Street correctly.

School: Colaiste Dun an Ri

County: Cavan

Teacher: Lorraine Hickey Student(s): Aimee Reilly

Title: A statistical investigation into the decline of reading among Ireland's youth and how we can prevent this from impacting future generations

Overview: My project shall investigate why Ireland's youth have diverted their interests from reading and what we can do to prevent this from impacting future generations.

School: Kinsale Community School

County: Cork **Teacher:** Shaun Holly Student(s): Sarah Fitzgerald

1106

Title: Every day counts: A statistical analysis of the impact of attendance on Junior Cert results

Overview: I am looking at the impact attendance has on Junior Cert results in English, Maths and Science in my school.

School: Lanesboro Community

College

County: Longford Teacher: Mary O'Brien Student(s): Orla Lyons

1107

Title: Are You Ready For Life?

Overview: We intend to carry out an investigation to see if the school you go to, can determine the skills you're taught needed for independent living.

School: Bandon Grammar School County: Cork

Teacher: Maire Flynn Student(s): Holly Warren

Title: Fruit - Just eat it

Overview: Examines the benefits of eating fruit and use of to treat certain conditions and ages. Also the best way to store fruit.

School: Castleknock College County: Dublin

Teacher: Tom Tierney

Student(s): Andrew Mc Weeney

Title: An investigation into the factors that influence Irish people to eat a vegetarian diet

Overview: To investigate the factors that influence people in Ireland to become vegetarian, and if nonvegetarians would decrease the amount of meat they eat.

School: Kinsale Community School

County: Cork Teacher: Shaun Holly Student(s): Ellen Doyle

Title: Smartphones - Can They Affect the Neuroplasticity of Babies and Young Children?

Overview: I wish to investigate phone usage in young children, see how it affects them and see how aware parents are of this issue.

School: Lanesboro Community

College

County: Longford Teacher: Michael Lyons Student(s): Adam Kingi

1111

Title: Sensory Processing Dissorder in

our classroom today

Overview: Sensory Processing Disorder - How can teachers and parents support the children distressed by over and under stimulation in our classroom today.

School: Maynooth Education Campus County: Kildare

Teacher: Tom Dixon Student(s): Aimee Murray

1112

Title: To investigate deduction and logical reasoning, and to explore if age and geographic location can influence

Overview: My project analyses the psychological factors that influences peoples perception of others.

School: Colaiste Dun an Ri

County: Cavan

Teacher: Michelle Hough Student(s): Oisin Raymond

Title: Save the Heartbreak

Overview: My project aims to increase the amount of people that know how to provide CPR and aim to develop a system to train everyone.

School: St Michaels College County: Dublin Teacher: Niall Trehy Student(s): James Dunne

1114

Title: How has fake news affected how much we believe the news today? Overview: My project is about our trust in the news. How much do we believe and how it has affected our

decision making. School: Kinsale Community School

County: Cork **Teacher:** Shaun Holly Student(s): Madelyn Fahey

Title: A Statistical Analysis of Traffic Speed In A 50 km/h Zone

Overview: An in-depth statistical analysis of measured traffic speeds on a busy stretch of road with reference to weather conditions, time of day and vehicle length.

School: Bandon Grammar School

County: Cork Teacher: Maire Flynn Student(s): Charlie O'Callaghan

INTERMEDIATE INDIVIDUAL

Title: Gauging the appetite of the Irish population for inglorious fruits and vegetables: A feasibility study. Overview: My project aims to reduce the rate of food waste by introducing 'ugly vegetables'. Using unwanted

produce to feed Irish homes could be our answer.

School: Colaiste Treasa - Kanturk

County: Cork

Teacher: Bríd-Anne O'Donoghue Student(s): Sarah Murphy

Title: An Analysis of the Housing Shortage in Ireland using Agent-Based Modelling

Overview: To model the housing market in Ireland in order to investigate methods of dealing with the housing crisis from a governmental point of view.

School: Loreto College - St Stephens Green

County: Dublin Teacher: Louise Kerr Student(s): Claire Gregg

1202

Title: Attitudes to Public Green Space in Rural Irish Towns: An Investigation into Perceptions and use of Roscommon and Longford Town Parks Overview: To gain an understanding of people's perceptions and use of

parks where they are based in two rural Irish towns. School: Roscommon Community

County: Roscommon Teacher: Joanne Broggy Shea Student(s): Michael Lough

1203

Title: Can your daily routine affect your exam results?

Overview: My aim is to compare an 'A-Student's' daily routine to an 'average' student's daily routine to see if certain activities can affect exam results positively.

School: Killorglin Community College

County: Kerry Teacher: Donal O'Reilly Student(s): Cian Lynch

Title: Why Do Trans People Have Some of the Highest Suicide Rates in the World?

Overview: I chose this project to bring awareness to what trans people go though and how it can impact their mental health.

School: Adamstown Community College

County: Dublin Teacher: Niamh Brennan Student(s): Dylan Donohue

1205

Title: Spotting Dyslexia: A quantitative study to investigate dyslexia symptom recognition among Irish primary school teachers of children aged 5-7.

Overview: This study involves identifying Irish Primary School teachers ability to recognise the symptoms of dyslexia in children from the ages of 5 to 7.





School: Colaiste Treasa - Kanturk County: Cork **Teacher:** Joanne Corkery

Student(s): Róisín Foley

1206

Title: Do Sexist Judgements Trump Non-Sexist Attitudes

Overview: A correlational analysis of subconscious judgement and conscious attitudes in relation to gender stereotypes and prejudices School: Coláiste Muire - Crosshaven

County: Cork

Teacher: Martina McMahon Student(s): Eve Bracken

1207

Title: A comparative Investigation into the Acceptance of Foreign National Students in Rural and Urban Schools

Overview: A statistical investigation into how foreign national students are being accepted into urban and rural school communities in Ireland

School: Desmond College County: Limerick Teacher: Aoife Culhane Student(s): Sarah Leahy

1208

Title: An Maith Leat Gaeilge? Overview: An investigation of the status of the Irish language in Ireland. How Irish is in decline in Ireland and to find a solution to this.

School: Portumna Community School

County: Galway Teacher: Sinead Keena Student(s): Rebecca Casey

1209

Title: Old Heads vs Young Legs Overview: My project investigates whether experienced sports teams are more successful in important matches at an elite level than more youthful, less experienced teams.

School: St. Fintan's High School County: Dublin

Teacher: Cathy Reilly Student(s): Cian Mulligan

1210

Title: What makes a Good Science Teacher? Exploring contextualised perceptions of students from a range school types

Overview: My research question investigates whether perceptions of good science teaching differ across school types/ contexts eg second level DEIS/non-DEIS/fee-paying, co-ed & single-sex

School: Ardscoil Ris County: Limerick Teacher: Diane Condon Student(s): Paul Hamilton

Title: Could your blood be killing you? Overview: An investigation into the awareness of Haemochromotosis in Ireland today.

School: Ard Scoil Na Mara County: Waterford Teacher: Niamh Shannon Student(s): Conor Ó'Cadhla

Title: Parenting from a Child's Eyes Overview: I want to investigate how children perceive their parents from an early age on and uncover how to prevent a negative change from happening

School: Loreto High School County: Dublin Teacher: Angela Benson Student(s): Elizabeth Brady

1213

Title: To Investigate The Differences in How Unchallenged Children and Children with Down Syndrome Perceive Gender Roles as They Age Overview: I'm investigating to see how children of varying age and with Down syndrome perceive gender roles by asking them questions usually

associated with particular genders. School: Sacred Heart School

County: Mayo Teacher: Kieran Hall

Student(s): Ariadna Gómez-Kelly

1214

Title: Thought; a Product of

Language?

Overview: I will examine the idea that thought is determined by language and I shall also examine theory that language is only one aspect of cognition.

School: Our Lady's Bower County: Westmeath Teacher: Julie-Anne Greaney Student(s): Kate Olwill

Title: A Reflection in Time: The Irish Town: Then and Now

Overview: Using statistics to analyse the changing trends in a typical Irish town over the past 50 years.

School: Desmond College County: Limerick Teacher: Aoife Culhane Student(s): Evan Condon

1216

Title: IQ gets you hired, EQ gets you promoted, what about MQ?!

Overview: To design and validate a measure of messiness as a personality trait, [Messiness Quotient(MQ)] and test if messiness follows the normal distribution.

School: Coláiste Muire - Crosshaven County: Cork

Teacher: Martina McMahon Student(s): Ava Lehane

Title: Who Would You Prefer Was Behind Bars? A Statistical Study Into Discrepancies In Public Attitudes To

Overview: I plan to find out whether

the public would prefer if certain groups of people were incarcerated for longer than other groups of people School: Kinsale Community School

County: Cork **Teacher:** Shaun Holly Student(s): Conor Horan

1218

Title: HPV: Why Not Me? A statistical analysis on the negative attitudes regarding the Human Papilloma Virus

Overview: My project will investigate the benefits of girls receiving the HPV vaccine and why there is such negativity and fear surrounding information about the vaccine. School: Mercy Secondary School

County: Kerry Teacher: Jemma Lynch Student(s): Ella Itsede

1219

Title: Why Fidget Spinners Are More Than Toys

Overview: I aim to showcase the advantages and disadvantages of stim toys and their normalization in media.

School: St Marvs College County: Wicklow Teacher: Joanne English Student(s): Katie Garrett

1220

Title: A Case Study on Conformity Based on Social Standards: the LGBT+ Community within Secondary Schools Overview: A study to see whether claims made by teachers regarding the supportiveness of the school (RE: LGBT Community) are consistent with the views of students

School: Loreto High School County: Dublin Teacher: Angela Benson Student(s): Leigh Aherne

Title: Creating Change: How reading can create empathy for marginalised groups.

Overview: To show that when teenagers read about fictional characters from marginalised groups, their attitudes will change, thereby reducing prejudice in fictional and real-life settings.

School: Scoil Mhuire gan Smál County: Roscommon Teacher: Padraig Harlow Student(s): Niamh Petrie

1222

Title: An investigation to see if technology can help children divert from it

Overview: It's about an app that will help children to not be as addicted to technology, by giving the child tasks to do away from technology.

School: Christ King Girls Secondary School

County: Cork Teacher: Julia White Student(s): Grace Onofrei

Title: The different effects Mindfulness has on different individuals

Overview: My project intends to highlight the different effects the practice of mindfulness has on different individuals using a two-week experiment.

School: Loreto High School County: Dublin Teacher: Angela Benson

Student(s): Róisín O'Brien

Title: Ticking Yes or No; A statistical study investigating parents attitudes towards the HPV vaccine and their information sources.

Overview: I aim to discover why parents choose to opt in/out of the HPV vaccine programme and the sources they use when making their decision.

School: Presentation Secondary School - Thurles

County: Tipperary Teacher: Charlene O'Brien Student(s): Emma Hayes

1225

Title: Did the opening of an Aldi store in Ennistymon affect the shopping patterns of people in North Clare? Overview: I am looking to see if the opening of an Aldi shop in Ennistymon affected the shopping patterns of people in North Clare.

School: Mary Immaculate Secondary

School - Lisdoonvarna County: Clare Teacher: John Sims Student(s): Aoife Dowling

1226

Title: Why are girls underdiagnosed with autism?

Overview: My project aims to investigate the reasons behind the underdiagnosis of autism in girls. School: Coláiste Naomh Mhuire

County: Kildare **Teacher:** Nadine Hennessy Student(s): Alana Lacey

1228

Title: The Influence of Music on Cycling speed (and wheel rotations). Overview: I am investigating to see whether the tempo of a song will change the speed and rotations done on a bike in one minute

School: Ardscoil Rís County: Dublin Teacher: Anne Doyle Student(s): Conor Walsh

1229

Title: A comparative study on the affect of climate on the emotions of teenagers in Ireland and Slovakia Overview: Looking for a link between the weather conditions and their

















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effect on the emotions of teenagers in Ireland compared to Slovakia. School: Ballinrobe Community School

County: Mayo **Teacher:** Deirdre Dwyer

Student(s): Patrik Žáček **SENIOR INDIVIDUAL**

1300

Title: What's the deal with the HPV vaccine?

Overview: This project analyses the reasons behind whether or not people vaccinate their children with the HPV vaccine and the views from different members of society.

School: St Andrew's College County: Dublin Teacher: Hilary Rimbi Student(s): Isobel Moloney

1301

Title: An Extroverted Education? A Study of Personality-Based Bias in the Classroom

Overview: I am investigating how personality type (introversion vs. extroversion) influences ones experience of the education system and if this reflects the 'extrovert ideal' in Western society.

School: Loreto College - St Stephens Green

County: Dublin Teacher: Jamie Bain Student(s): Hana Gallagher

Title: Triall eolaíochta chun taispeaint an tionchar atá ag "cúpla deoch" ar do thiomáint

Overview: I want to scientifically show that even one or two drinks can hamper a driver's ability to drive safely School: Coláiste Ailigh

County: Donegal Teacher: Micheál Ó Giobúin Student(s): Iarlaith Mac Fhionnghaile

Title: Can Syrian refugees adapt to life in Ireland?

Overview: My aim is to investigate whether refugees integrate into Irish society effectively and if not how can we assist them in doing this.

School: Colaiste Mhuire - Mullingar County: Westmeath

Teacher: Eva Acton Student(s): Jibola Boris

1304

Title: Classroom dissection: The attitudes of students and teachers Overview: My project will consist of the results of a survey put to secondary students and teachers asking them about classroom dissection with background research included.

School: Christ King Girls Secondary School

County: Cork **Teacher:** Julia White Student(s): Cliona Scully

Title: The cure for poor health literacy?: An investigation into the readability of public health resources. Overview: I am investigating whether difficulties in understanding public health resources become a barrier to achieving healthcare literacy. School: Lanesboro Community

College County: Longford

Teacher: Michael Lyons Student(s): Brian Lyons

Title: See What I'm Saying? An investigation into the McGurk Effect, and its correlation with the learning methods of Irish Teenagers

Overview: To investigate The McGurk Effect and examine how its results correlate with the learning methods of Irish teenagers, through students' results in the VARK questionnaire.

School: Heywood Community School County: Laois

Teacher: Aodhagan O Suilleabhain Student(s): Arianna Mezzapelle

1307

Title: "App"itude towards mental health in Irish Schools

Overview: An in depth research into the experiences of Irish students and their mental health approaching exams. Comparing the use of a relaxation application versus not. School: Coláiste an Chraoibhin

County: Cork

Teacher: Cathrena O'Keeffe Student(s): Dara-Jeanne Sheedy

Title: How can a Mobile App help people with Anxiety or Depression? Overview: This project aims to help people with Anxiety or Depression through the use of a Mobile App. School: Dominican College -

Drumcondra County: Dublin Teacher: Karen Ward Student(s): Eve Cullen

JUNIOR GROUP

Title: A statistical analysis examining why the prevalence of Lyme Disease is more common in the south of Ireland Overview: We aim to investigate the reasons why the prevalence of reported cases of Lyme Disease is greatest in the South of Ireland. School: Pobalscoil Neasain - Baldoyle County: Dublin

Teacher: Gemma Buicke Student(s): Amy Molloy, Roisin Finnegan

1401

Title: The Analysis Of The Affect Of Blue Light On Young People Before They Sleep.

Overview: In our experiment we will look at the statistics of how many young people use their phones before they sleep and the effects it has.

School: Ardscoil Ris County: Limerick Teacher: Phil Harte

Student(s): Joseph Hempenstall, Aaron Carmody, Stuart O'Neill

Title: Does Money Buy You A Smile? **Overview:** We are examining the tooth-brushing habits of teenagers and adults. We are assessing:(i)Which products are good at preventing tooth decay? (ii) Are more expensive products better?

School: St Nathy's College County: Roscommon Teacher: Oonagh Redmond Student(s): Niamh Flaherty, Arianna Cahill

1403

Title: (Re)Wire: A Solution for **Enhancing Student Attention Spans** While Studying

Overview: Our study will encompass the creation of a mobile application that will motivate students towards positive studying behaviours by limiting mobile enabled distractions.

School: Dominican College County: Galway Teacher: Dee King Student(s): Aaliyah Clohessy, Ava McGahon

Title: Self Sustainable Homes - Is Initial Cost A Barrier? Overview: To study new electricity generating solar technologies and discover why they haven't taken off in Ireland by investigating the public, electricity providers and the government.

School: Tullamore College County: Offaly Teacher: Sarah Rossiter Student(s): Jean Carson, Eadaoin Carroll, Glory Omoruyi

Title: The Video Game Experiment Overview: A study of varying attitudes, aggression and behaviour amongst different students through a survey. The project generated much interest from the students and fascinating results. School: Pobalscoil na Tríonóide

County: Cork **Teacher:** Edel Charles

Student(s): Conor McArdle, TJ Daly, Dylan Lyons

Title: To Assess if the Halo Effect Influences the Public's Purchasing Habits of Organic Food and to Test if Organic Labels Bias Taste Perceptions. Overview: We aim to test the Halo

Effect's influence on the public's taste perception of organic food and assess their purchasing decisions and understanding of organic-food **School:** Kinsale Community School

County: Cork Teacher: Shaun Holly Student(s): Rachel Henderson, Aoife Walsh, Meadhbh Hurley

Title: Do countries with hotter climates have lower numbers of depression? A study of long term effects of vitamin D intake.

Overview: An investigation to discover if human being's mental health is affected by climate temperature.

School: St Aloysius School

County: Cork

Teacher: Katie O'Donovan Student(s): Amy Wallace, Hazel Harrington

Title: To determine the effect of mindful meditation on stress levels and sleep patterns in adolescents Overview: We wish to investigate the therapeutic effectiveness of regular mindful meditation on stress levels and sleeping patterns in adolescents

School: St Vincent's Secondary School County: Louth

Teacher: Laura McGrory Student(s): Zara O'Shea, Isabel Holmes, Grace Olamijuwon

1409

Title: From Wonder Woman to Daddy Pig; An investigation of the sexist conditioning of children through TV and film

Overview: Our project will look at the extent of the sexist conditioning and stereotyping that children are exposed to through TV and film. School: Ard Scoil Na Mara

County: Waterford Teacher: Niamh Shannon Student(s): Róisín Ní Chadhla. Erin O'Sullivan, Ryan Fleming

Title: The effects of bad footwear Overview: Our project aims to show the effects of wearing incorrect footwear

School: Castlecomer Community School County: Kilkenny

Teacher: Fiona Morrissey Student(s): Sophie Bourke, Shauna Phelan, Hannah Doyle

Title: To determine at what age and to what extent do young male and females teenagers modify their diet when they get involved in competitive level sport activities? Overview: We will determine to what extent a teen will alter their diet when involved in competitive sports.





School: Presentation College County: Cork Teacher: Julie Hanlon Student(s): Conor Madden, Pierce Scully, Finn Cowhig

Title: Peoples attitudes towards the say so causes of Autism

Overview: We are finding out what are peoples thoughts and reactions on the say so causes of Autism. We are doing this by survey.

School: Kinsale Community School County: Cork

Teacher: Shaun Holly Student(s): Caoimhe McGuinness, Kaitlynn Compagno, Clare Cronin

1413

Title: Fight the Light (Statistical Analysis of rural men and their perception of SPF in the fight against skin cancer.)

Overview: We will be investigating Sun Protection Factor .We'll also be doing a survey on farmers and builders to see if they know about

School: Colaiste Dun an Ri County: Cavan Teacher: Linda Kelly Student(s): Maria McCaul, Holly Gaughan, Daisy Cox

Title: An Brú a Bhaineann le aistriú ón Bunscoil go dtí an Meánscoil Overview: Our project looks at the pressure of going to secondary school and how it can effect them. School: Pobalscoil Ghaoth Dobhair

County: Donegal Teacher: Susan Ní Loinsigh Student(s): Orla Ní Dhubhaigh, Róise Ní Fhearraigh, Áine Ní Bhaoill

Title: Gypsum - where does it come from and how does it compare to other continental deposits.

Overview: For our project we want to complete a study of the gypsum rock that Gyproc Saint-Gobain use in their factory in Kingscourt Co Cavan.

School: Colaiste Dun an Ri County: Cavan Teacher: Megan O' Brien Student(s): Max Kelly, Cein O' Rourke, Alex O'Reilly

Title: A Deposit Refund Scheme for Ireland - do we have the bottle? Overview: To compare the level of knowledge among our peers on the issue of pollution due to single use beverage containers compared to peers in other EU countries where a Deposit Refund Scheme exists. We will determine if they would be prepared to support such a scheme and how much of a deposit/refund it would take to motivate them to get on board.

School: Mount Sackville Secondary School

County: Dublin Teacher: Anne Meade Student(s): Roisin Kellegher, Isobel Byrne

Title: The positive and negative Psychological effects of Type 1 Diabetes on children

Overview: Our project aims to highlight the positive and negative psychological effects on children with type 1 diabetes and to identify the need for psychological support. School: Scoil Mhuire gan Smál -

Blarney County: Cork

Teacher: Marguerite ODonoghue Student(s): Miriam Murphy,

Sarah Healy

1418

Title: To establish a dogs recognition of colour

Overview: Our project is testing a dog's colour recognition. We've always wondered if they have a preferred colour as they don't see colour like us. We wanted to determine if they can distinguish between colours which appear similar to them.

School: Portumna Community School

County: Galway Teacher: John Enright

Student(s): Caitlin Masterson Maxwell, Kaitlyn Brien, Ciara Reddin

1419

Title: Fast Fashion Overview: Our project aim is to determine how fast fashion contributes to how much chemicals in clothes are affecting the environment. School: St Mary's Secondary School

- Macroom

County: Cork

Teacher: Jennifer Butler Student(s): Grace Lucey,

Tia Campion

1420

Title: An investigation into variance in female performance levels throughout

Overview: To investigate the degree female athletic performance is effected by varying hormonal levels on a weekly basis due to menstrual cycle.

School: St Joseph's College -Borrisoleigh

County: Tipperary Teacher: Mary Gorey Student(s): Katie Ryan, Danielle Ryan

1421

Title: Causes and treatments of anxiety in teenagers

Overview: We will be finding out what causes the most anxiety in teenagers and simple effective methods to

School: Ringsend College County: Dublin Teacher: James O'Keeffe

Student(s): Abbie Cassidy, Clodagh Clarke

1422

spent online.

Title: Does the amount of time spent online correlate with your knowledge of internet safety as a teenager? Overview: To investigate if teenagers' knowledge of internet safety differs depending on the amount of time

School: Colaiste Ide and Iosef County: Limerick Teacher: Maria Mc Mahon Student(s): Clíodhna Ryan, Lillie Reynolds, Alicia O'Connor

Title: Pressure Pointes

Overview: The project overview is to educate young dancers from twelve to eighteen year olds about the pressure and force of different dance shoes.

School: Coláiste Bhaile Chláir County: Galway Teacher: Sinead Walsh Student(s): Ciara Cullinane. Aoife O'Sullivan

1424

Title: An investigative study into the prevalence of waste segregation, and the influential factors on segregating waste in Cavan/Monaghan

Overview: Our project focuses on the prevalence of rubbish segregation and factors which aids/prohibits people segregating their rubbish in accordance with waste disposal company guidelines.

School: Colaiste Dun an Ri County: Cavan Teacher: Michelle Hough Student(s): Hana O'Connor, Kayla Mahon, Kelsey Buckland Morris

Title: Blagálaí ag athrú ár Sochaí? Staidéar ar athrú nósanna daoine de bharr an Meáin Shóisialta

Overview: Táimid ag staidéar 'influencers' ón meáin shóisialta agus conas a athraíonn siad nósanna fograíocht. Tá muid ag staidéar an aois ghrúpa ó 10-50.

School: Gaelcholáiste Luímnigh County: Limerick Teacher: Ciara Ní Dhrisceoil Student(s): Mary O'Callaghan, Sarah Moloney, Claire Leddin

Title: Does social jetlag, sleep debt and breakfast patterns effect memory retention in students in post-primary in education

Overview: This project will attempt to find out whether or not there is a correlation between social jetlag, breakfast habits and short-term memory retention.

School: St Joseph's Secondary School

County: Dublin Teacher: Daryl Dunne

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

Title: An éifeacht a bhfuil ag boladh ar cuimhne

Overview: Féiceam ar chonas a bhfuil éifeacht ag boladh ar cuimhneacháin agus is féidir toradh scrúdú a feabhsú le boladh éagsúladh

School: Coláiste Pobal Osraí

County: Kilkenny Teacher: Lughaidh Ó Néill Student(s): Cara O'Maoilriada, Eddie Molyneaux, Sean O'Malley

1428

Title: A Statistical Analysis on the Strengths and Weaknesses of the Cycle to Work Scheme

Overview: We aim to explore the reasons why people choose whether or not to use the cycle to work scheme and peoples views on the scheme.

School: Kinsale Community School County: Cork Teacher: Shaun Holly Student(s): Lilv Gill. Emer Heery, Lucy Foley

1429

Title: Investigate the impact of rowing on the wellbeing of students in the junior and senior squads compared with non-rowers from an Irish boy Secondary School.

Overview: This project will aim (1)to measure the benefits of rowing on junior and senior squads students'(physical and mental) well-being and (2)compare it with non-rowing students'.

School: Presentation College County: Cork

Teacher: Julie Hanlon Student(s): Joachim O'Driscoll, Conor Power

1430

Title: Media photographic adaptation of criminals

Overview: Media's portrayal of criminals and how differences in public opinions can be influenced by tampered images. Two surveys: original photographs and adaptations of criminal/non criminals.

School: Coláiste Na Toirbhirte County: Cork

Teacher: Declan Cronin Student(s): Hannah Morrissey, Emma Gallagher

1431

Title: The Fault in Our Stars Overview: We wish to discover if your zodiac sign accurately describes your personality and skills.

School: Coláiste Bhríde County: Wicklow Teacher: Miriam Rickerby Student(s): Isabella Chonaill, Laura Gallagher





















Social & Behavioural Sciences

Title: To Investigate the Effects of Mobile Phones on Academic Performance.

Overview: Does excessive mobile phone usage effect students academic performance through endless scrolling and does this lead to their inability to concentrate.

School: Comeragh College **County:** Tipperary Teacher: Carrie Hogan Student(s): Eryk Adamczyk, Conan Harrison Quility, Tadhg Sheehan

INTERMEDIATE GROUP

1500

Title: To raise awareness about Rett Syndrome and investigate the effect it has on loved ones..

Overview: Our project is about raising awareness about Rett Syndrome and the effect it has on the individual and their loved ones.

School: Coláiste lósaef County: Limerick **Teacher:** Sharon Magner Student(s): Aisling Dwane, Lucy Chawke, Kacie Culhane

Title: Avoid The Worst and Put First Aid First!

Overview: This project is aimed at teachers as, due to research, are mostly unqualified in First Aid and uncomfortable in the event of a medical emergency.

School: Portumna Community School

County: Galway Teacher: Paul Maguire Student(s): Julie Moran, Sandra Shaughnessy

1502

Title: Hypnotic Susceptibility Overview: my aim is to find out what people know about hypnosis and whether age/gender contribute to how susceptible a person is to

School: St Francis Capuchin College County: Cork

Teacher: N. Barry Student(s): Daniel Cremin, Cathal O'Regan

1503

Title: Gender neutral toilets....Who

Overview: A study of the perceptions and views of teenagers of various ages and adults into gender neutral toilets.

School: Breifne College County: Cavan

Teacher: Amanda McNally Student(s): Melissa McCabe, Katie McCormack, Kate Smyth

1504

Title: From Town to Country: How is the quality of life changing for families who have recently relocated to rural Ireland.

Overview: A case study on how recent relocations from urban to rural areas impacts the quality of life of these

School: Coláiste Choilm County: Cork Teacher: Lillian Heylin Student(s): Aoife Babington, Fiona Nagle

Title: Dublin Dominance - Where does

it begin?

Overview: Dublin have Dominated Inter-County Football for the Last Decade. We aim to establish at what level this Domination begins and why. School: De La Salle College - Dundalk

County: Louth Teacher: Cara Mc Adam Student(s): Liam Cafferty, John Reel, Oisin Brennan

1506

Title: But sure, it's only women's football

Overview: To examine difference in attitudes towards men's and women's Gaelic football and the affects it has on drop-out rates, through statistical analysis, interviews and surveys.

School: Ballinamore Community School

County: Leitrim

Teacher: Eamon Geoghegan Student(s): Edel Shanley, Lauren Tivnan, Abbi Sweeney

Title: A Study on the Understanding of Depression in Secondary School

Overview: We are doing this project to see what people know about depression and we also want to inform people of methods of help

School: Colaiste Pobail Setanta

County: Dublin **Teacher:** Laura Kelly Student(s): Alishaer Ahmed, Richard Adebayo, Dennis Ukandu

Title: The Effect of Foam Rolling on The Sprint Speed of Active Male Teenagers

Overview: We want to investigate if foam rolling has an effect on sprint speed among active male teenagers, and if it will benefit them.

School: Meánscoil na mBráithre Criostaí

County: Kilkenny Teacher: Eddie Teehan Student(s): James Fields. Daniel Walsh, Liam Moore

Title: A comparative study into the reported advantages and disadvantages of Insulin pumps. Overview: We are investigating the reported advantages and disadvantages of different types of insulin pumps for young adults with type 1 diabetes.

School: St Vincent's Secondary School

County: Louth Teacher: John White Student(s): Rebekah Woods, Maria Smith, Molly Hughes

Title: Mental Health Education in public versus private schools Overview: The aim is to determine the extent to which mental health education differs between public and private schools and the impact on

student well-being. School: Coláiste Iosagáin County: Dublin **Teacher:** Róise Ní Fhátharta Student(s): Niamh Ní Chumascaigh,

Sophie Beddoe

1511

Title: An improvement to the ranking system for Ireland's second level schools.

Overview: To create a formula for ranking Ireland's second-level schools. We will use both academic and nonacademic performance indicators. Project is inspired by current American initiatives.

School: Millstreet Community School

County: Cork **Teacher:** Shane Guerin Student(s): Mark Casey. Eimear Corcoran

Title: High Tech vs Low Tech - Which is best for elite junior athletes? Overview: Examining whether junior elite athletes require Smartwatches to enable them to perform better or instead learn to run to certain

School: Loreto Secondary School County: Kilkenny Teacher: Maureen Hand

Student(s): Neasa Ruane, Issey Shine, Annie McEvoy

1513

Title: An exploratory study of Instagram use and its relationship to self esteem and a number of background variables.

Overview: Our project aims too examine the complex interaction between Instagram use and personality and psychological factors among young adults.

School: Deele College County: Donegal **Teacher:** Mary Gibbons Student(s): Katie Allan. Saoirse Sheridan, Caitlin Sheridan

Title: Cost Benefit Analysis: Autism Assistance Dogs, Are They Worth It? Overview: We are analyzing the cost of training an autism assistance dog in comparison to the benefits they have on the family's life

School: St Mary's Secondary School - Macroom

County: Cork

Teacher: Jennifer Butler Student(s): Anna O'Leary, Hanna O'Donovan

Title: The science of FOMO (Fear of Missing Out)

Overview: Our project will investigate how accountable social media is on the phenomenon of FOMO, "FOMO Fear of missing out" which is a form of anxiety.

School: Colaiste Nano Nagle County: Limerick Teacher: Kelly Walsh Student(s): Caitríona O Halloran, Amy O' Halloran, Kerri Cleary

Title: Invisible Parents, Inconspicious Children. A Study of Parent-Child Separation among the Homeless in Emergency Accommodation.

Overview: Our study investigates the prevalence and needs of homeless parents, who are in emergency accommodation and separated from their children.

School: Colaiste Treasa - Kanturk

County: Cork

Teacher: Derry O'Donovan Student(s): Nóirína O'Sullivan, Shauna Linehan

1517

Title: Technology+Dry Eye Syndrome Overview: The effect of electronic screens to people who suffer from dry eye syndrome.

School: Pobalscoil na Tríonóide

County: Cork Teacher: Edel Charles Student(s): Lucía García, Nadia Senouci

Title: Unknown Jobs for Dogs Overview: Highlight: how assistance dogs(ADs)support people with disabilities and health issues, Different types of ADs, Rules and regulations around ADs and Charities that train ADs.

School: Comprehensive School -Tarbert County: Kerry

Teacher: Gerard Nash Student(s): Rachel O'Connor, Roisin Moran

1519

Title: Are young vapers at risk of popcorn lung?

Overview: we based our project on the curiosity we share about the popularity of vaping among young people in Ireland, and their reasons for doing so.

School: Kinsale Community School

County: Cork Teacher: Shaun Holly Student(s): Daire Buckley, Michelle Collins





1520

Title: Let Science Influence The Voting

Overview: A study through surveys into the political knowledge of 16 year olds, compared to the political knowledge of people of voting age, mainly 18 year olds.

School: Loreto College - St Stephens

Green

County: Dublin Teacher: Jamie Bain Student(s): Susie Gill, Sarah Kelly, Adrianne Ward

Title: Facebook depression, is it real? Overview: Our project aims to show that social media is a main reason for 'Facebook depression' in teenagers. School: St Bricin's Vocational School

County: Cavan

Teacher: Anne-Marie Tackney Student(s): Kayleigh Brady,

Marina Lago

1522

Title: Snap Map, To snap or not Overview: A survey based project which looks at the usage of snapchat map and the potential risks for users especially teenagers.

School: Rosses Community School

County: Donegal Teacher: Kevin Boyle Student(s): Mikaela Greene, Colm O'Donnell, Maurice McGee

1523

Title: Does the quantity of food eaten effect the quality of sleep. Overview: We hope to test whether

the quantity of food eaten prior to sleep effects the quality of said sleep. **School:** Cistercian College

County: Tipperary Teacher: Lesley Cox Student(s): Eoghan Brennan, Jacob Faughnan

Title: An bhfuil dátheangachas ag cabhrú le fadhbanna a réiteach níos

Overview: This project investigates if students who are bilingual have a greater aptitude for problem solving than those who are monolingual

School: Pobalscoil Ghaoth Dobhair

County: Donegal

Teacher: Siobhan Ni Shearcaigh Student(s): Molly Níc Phaidín. Grace Ní Chonchuir, Caitlin James

1525

Title: The knowledge young adults have on homelessness today. Overview: Our project discuses the knowledge and the opinions our school peers and young adults of our community have on homelessness today and to spread awareness. School: Mercy Secondary School

County: Kerry Teacher: Jemma Lynch Student(s): Ciara Murphy, Jessica Cotter

1526

Title: An investigation into Biofeedback

Overview: We wish to investigate to see if concentration has an effect on body temperature and heart rate.

School: Magh Ene College County: Donegal **Teacher:** Yvonne Higgins Student(s): Aaron Bradshaw, Oisin Carolan

1527

Title: fake newwwws

Overview: To investigate secondary school students' views on the reliability of online news outlets, their awareness of current news topics, and to determine difference in results on the basis of age and gender.

School: John The Baptist Community

School

County: Limerick **Teacher:** James Devereux

Student(s): Caitlin Madden, David Wolfe, Aisling Moloney

Title: Does the phonetic alphabet transcription of a word help language pronunciation

Overview: Is using IPA in secondary school beneficial to students and if so, it should be a module in Transition

School: Ursuline Secondary School - Thurles

County: Tipperary Teacher: Michael English Student(s): Niamh Casey, Flaine Chute

Title: How Safe are we on the Internet? A Case Study- Cé Chomh Sabháil atá an Idirlíon? An Cás Staideir Overview: Our aim is to conduct surveys to evaluate how safe we are

on the internet based on age, gender and our uses of the internet.

School: Gaelcholáiste Chineál Eoghain County: Donegal

Teacher: Niamh Mc Daid Student(s): Holly McDaid, Toby Yeoman, Megan Bracken

1530

Title: Gender Wage Gap Fact or Fiction

Overview: Our project is seeing if there is an actual wage gap between men and women in Ireland today. School: Bush Post Primary School

County: Louth Teacher: Gary Galvin

Student(s): Michael-john Hanlon, James McArdle, Shane McArdle

1531

Title: The Misleading Portrayal of

Overview: Our project focuses on

exploring the traits associated with psychopathy, what it is like to be a psychopath, and how the stigma around psychopathy developed.

School: Jesus and Mary Secondary School, Our Lady's Grove

County: Dublin Teacher: Marc Paul Lynn Student(s): Sophie Culleton, Amy Doyle, Meserah Abdullah

1532

Title: Common Misconceptions about

Autism among Students.

Overview: To assess the common misconceptions about Autism among Students in the Secondary School

Education System. School: Comeragh College County: Tipperary Teacher: Carrie Hogan

Student(s): Carrick Edwin Reynolds, Anastasia Ivanova-Brujeva,

Luke McNamara

1533

Title: Smells like Non-Sense Overview: We are investigating how an absence of one sense can affect our other senses as a member of our group has anosmia (no sense of smell).

School: Ursuline College County: Sligo Teacher: Anthony Carolan Student(s): Filis Burke. Tara Duggan, Amy Hopkins

Title: Léigh anois go curamach do scrúdpháipéir.....

Overview: Our project aims to investigate the benefit of accessing both the English and Irish version of an exam as well as statistical analysis of current practices of students from Gaelcholáistí taking the Junior Certificate exams.

School: Gaelcholaiste Na Mara -Arklow

County: Wicklow

Teacher: Rebecca Ní Chonchúir Student(s): Aisling Downes. Isabella Lawlor, Sarah Brennan

Title: Investigate how all the senses combine together to influence taste Overview: We want to investigate how all the senses combine to influence taste by performing two experiments with volunteers from our school.

School: Virginia College County: Cavan Teacher: Miriam Nugent Student(s): Emily Murphy, Grainne Walsh

1536

Title: Teaching: The Right Way? Overview: An experiment to investigate the responses of primary school children to different teaching methods and to generate a standardised statistic based on these results.

School: Loreto Secondary School

County: Kilkenny Teacher: Brendan Williams Student(s): Rachel Kelly, Reece Carter, Sinéad Bass

Title: Why girls exit sport at an early

age?

Overview: Our project aims to find some of the reasons why girls exit sport at an early age

School: Castlecomer Community

School County: Kilkenny

Teacher: James Murphy Student(s): Eimear Stone, Róisín Brennan, Emma Dwyer

Title: ASMR - What's Your Trigger? Overview: Our project is based on Autonomous Sensory Meridian Response and discovering a method of finding someone's individual triggers based on age, gender, etc.

School: Heywood Community School

County: Laois

Teacher: Niamh Delanev Student(s): Niamh Kelly, Jade Coleman, Chieu Phelan

Title: Can music improve the mood of dementia patients?

Overview: We aim to find out if music can have a positive impact on the emotions of people suffering with dementia.

School: Coláiste Na Toirbhirte

County: Cork

Teacher: Declan Cronin Student(s): Claire Barry, Rachel Mellerick, Elena Behan

1540

Title: A Study in the Variables that Affect Dream Recollection in Teenagers

Overview: We want to investigate how age, gender, last activity before bed, amount of hours slept, and how you wake up (e.g. alarm) affect dream

School: Colaiste Pobail Setanta

County: Dublin Teacher: Laura Kelly

recollection.

Student(s): Matthew McQuade, Eamon Almukhtar, Evan Murphy

1541

Title: An investigation into the pretraining nutritional knowledge of secondary level students on the basis of age, gender and sport.

Overview: Our project aims to investigate if young athletes are aware of the correct nutrition and hydration needed to maximise performance.

School: John The Baptist Community School

County: Limerick **Teacher:** James Devereux

















Social & Behavioural Sciences

Student(s): Rory Hannan, Micheal Martin, David Power

1542

Title: The Dire Disadvantages to a Celebrity Smile

Overview: Our investigation, in teenage girls, into the relationship between orthodontic treatment and our central nervous system.

School: Loreto Secondary School

County: Kilkenny **Teacher:** Laura Whelan Student(s): Tara Gillespie, Ellen Keane, Emily Cairns

1543

Title: Global Warming: Fact or Fiction?? A statistical analysis into the opinions of Irish people on Global Warming. Overview: We want to find out if Irish people really believe Global Warming

School: Laurel Hill Coláiste FCJ County: Limerick Teacher: Johanna Healy Student(s): Emily Condon, Ciara O'Brien, Kate Crowley

1544

Title: Is everything you think you know about addiction wrong? Overview: An investigation into Bruce K. Alexanders theory that addiction is more of a psychological and social issue than an individual physical problem.

School: Loreto Abbey Secondary School

County: Dublin Teacher: Linda Nolan Student(s): Alannah Hughes, Sophie Shortt, Abigail Casey

1545

Title: An investigation into televised road safety campaigns, to see if they are having a lasting impact on young teenagers attitudes towards drink and drug driving

Overview: Conducting an investigation into the effectiveness of televised road safety campaigns to test their impact levels with young teens. School: St Mary's Secondary School County: Dublin

Teacher: Bronwyn Mulvey Student(s): Lauren McGuinness, Sarah Brady

1546

Title: Irish farmers concerns for Brexit Overview: this project will be looking to see if farmers are scared of Brexit and will it effect our agricultural sector

School: Coláiste lósaef County: Limerick Teacher: Sharon Magner Student(s): Dylan Scanlon, Peter Buckley

Title: Are facial expressions scientifically or abstractly contagious Overview: Our project aims to

find out if facial expression such as smiling and yawning are scientifically contagious or abstractly contagious. School: Nagle Rice Secondary School

Teacher: Tara Maguire Student(s): Shauna McDonnell, Anna Walsh

1548

County: Cork

Title: A Statistical Analysis of Women's Knowledge of Cervical Screening and What Influences them to Attend for Screening.

Overview: Our project aims to examine women's knowledge of cervical screening and the smear test. We will investigate factors affecting women's decision to attend for

School: Kinsale Community School

County: Cork Teacher: Shaun Holly Student(s): Aisling Hurley, Aoife O'Leary, Abby Fay

1549

Title: To Creche or Not To Creche **Overview:** The benefits and disadvantages of children attending crèche is widely debated. This project investigates the behavioral and emotional impacts crèche has on

School: Athlone Community College

County: Westmeath Teacher: Niall Carty Student(s): Breena Breheny, Olive O'Loughlin, Lia Harte

Title: The views of the Irish public based on age, religion and gender towards the life of the unborn.

Overview: we hope to see do peoples opinions towards the life of the unborn change based on their age, religion and gender.

School: Castlerea Community School

County: Roscommon **Teacher:** Pauline Dervin

Student(s): Tara Keane, Sandra Keane

Title: An investigation into the attitude of recycling in Irish students in primary schools and how it changes as they grow into secondary school Overview: A survey sent to 6th class and ty students about their attitude to recycling, to find changes and why do attitudes change as they grow School: Meánscoil na mBráithre Criostaí County: Kilkenny

Teacher: Eddie Teehan Student(s): Michael Rafter, Jack Murphy, Luke Cullen

Title: Finding the link between late-life depression and Alzheimer's

Overview: We hope to find a link between late-life depression and Alzheimer's disease.

School: John The Baptist Community

County: Limerick Teacher: Sarah O' Dwyer Student(s): Caoimhe Crowley,

Eimear Moore

1553

Title: An investigation into mental health disorders in first world countries Overview: An investigation into mental health issues in first world countries involving treatment, history and how these issues are viewed in different parts of the world School: Coláiste Bhaile Chláir

County: Galway Teacher: Eleanor Nolan Student(s): Ethan Kaya, Jason Folan, Luke Roberts

1554

Title: A Quantitative Study To Show the Effect of Female Role Models on Girls choosing STEM subjects at Second Level.

Overview: This is a quantitative study of the effect of female role models in science on females choosing STEM subjects in second level education.

School: Colaiste Treasa - Kanturk

County: Cork

Teacher: Derry O'Donovan Student(s): Molly Browne. Sinead Movnahan

Title: Teenaged veganism! Is it possible Overview: Our project aim is to find out what teens know about the vegan lifestyle, its health benefits and to improve awareness

School: St Marys College County: Wicklow Teacher: Joanne English Student(s): Kelsey Devlin, Niamh Curley

Title: Re-thinking Gender: Is It Worthwhile?

Overview: We aim to open a discussion on gender, among teenagers and adults, to find an answer to our fundamental question: Is Re-thinking Gender Worthwhile? School: Schull Community College

County: Cork Teacher: Larissa Kelly

Student(s): Liadh Pyburn, David Walsh

1557

Title: Athchursáil San Lá Atá Inniu

Overview: Ag fhiosrú an bhfuil fhios ag daoine conas athchursáil i gceart agus an féidír linn eolas ceart a thabhairt dóibh air.

School: Coláiste Chilliain

County: Dublin

Teacher: Doireann de Nógla Student(s): Finn Mac Giolla Comhaill,

Geena Ní Chonghaile

Title: A statistical analysis into the HPV vaccine uptake by girls in our school community and the influence of social media.

Overview: Our project is about how social media influences parent's decisions on whether their daughter should or shouldn't receive the HPV vaccination.

School: Castlecomer Community School

County: Kilkenny **Teacher:** Robert Morris Student(s): Jenna Brennan, Katie Doyle

Title: Talking out loud: sane or insane? Overview: A study of how speaking to yourself out loud can improve mental health, focus, and may be a sign of higher intelligence.

School: St Mary's High School

County: Cork **Teacher:** Niamh Jones

Student(s): Abby Nagle Garne, Ellen O'Donnell, Clidna Casey

1560

Title: Horse Play

Overview: To investigate the effects, if any, certain aural stimuli has on a horses heart rate and behaviour and therefore well-being and behaviour

School: Ardscoil Ris County: Limerick Teacher: Diane Condon Student(s): Robert Moloney, Ronan Goodwin-Boers, Brendan Penny

Title: An investigation into the use and awareness of e-cigarettes among teens and a comparison of genders Overview: Our project aims to find out what teenagers know about the ingredients in e-cigarettes and whether the use varies among

School: St Wolstan's Community School

County: Kildare Teacher: Paula Kirrane Student(s): Emilie Donaghy, Grace Carragher

1562

genders

Title: An investigation to see if the quality of student's handwriting has deteriorated due to technological advancements.

Overview: By investigating if the quality of student's handwriting has deteriorated due to technological advancements in schools. We are comparing students capability of writing in cursive.

School: John The Baptist Community School

County: Limerick **Teacher:** James Devereux Student(s): Micheál Hennessy, Thomas Ryan, Anna O' Dwyer





1563

Title: Light Emitting Sleep Assister (L.E.S.A)

Overview: Our project will involve creating a device that will help regulate sleep patterns of its users, giving them more energy and improving their everyday lives.

School: Midleton College County: Cork **Teacher:** Paul Joyce Student(s): Liam Hoogstad, Sam Spillane, Stephen Moore

1564

Title: An investigation of female participation in Irish politics Overview: An investigation into the lack of female participation in Irish politics and what influences women to get involved in Irish politics.

School: Thomond Community College County: Limerick **Teacher:** Michael Treacy

Student(s): Toni Alannah Corbett, Robyn Kiely, Manika Chaddad

Title: An bhfuil difríocht idir a bheith ag rith go moch ar maidin agus sa trathnóna?

Overview: Tá muid chun fháil amach ó ag scrúdaigh dáltaí scoile má ritheann tú níos tápaí ar maidin no ar trathnóna.

School: Coláiste Chilliain County: Dublin Teacher: Ruth Ní Mhuirí

Student(s): Seosamh Ó'Muirí Sóirle Ó Dubhshláine Dónal Ó Cluanaigh

1566

Title: Investigation of Attitudes of Male and Female Attitudes towards Abortion

Overview: We our going to be doing our project on the different attitudes of male and female towards abortion. School: Bush Post Primary School

County: Louth Teacher: Aisling White Student(s): Katie McGrath Demi Mulligan Deirbhile O'Doherty

1567

Title: Have We Been Sleeping Wrong For 300 Years?

Overview: Investigating the effects and benefits of Bi-Modal sleep versus the conventional sleep pattern. This "alternative" sleeping was actually popular until the 1700s and industrial revolution

School: Coláiste Pobal Bheanntrai

County: Cork

Teacher: Siobhan O'Sullivan Student(s): Fergal Connolly Mark O'Flaherty Dray Morgan

1568

Title: Investing in the Early Years- the free pre-school scheme Overview: A quantitative and qualitative study which explores the

benefits of preschool to the country

and its effects on the child's life and well-being.

School: St Mary's Secondary School

- Macroom County: Cork

Teacher: Jennifer Butler Student(s): Jessica Buckley, Dominika Starzycka

1569

Title: Why don't you drink? **Overview:** Social Analysis Community Profile to identify reasons why a group

of young people between the age of 15-18 years old choose to abstain from alcohol

School: Castlepollard Community College

County: Westmeath Teacher: Aoife Brady Student(s): Megan D'Arcy, Rebecca O'Keeffe

Title: The investigation and the correlation of the importance of blood tests for all age groups in today's modern society.

Overview: We wish to examine and analyse attitudes towards blood testing, and regulations in other countries, to conclude whether people recognise its importance for their health.

School: Laurel Hill Secondary School

County: Limerick Teacher: Mary Frawley Student(s): Mary Moloney, Niamh Murphy

Title: Examining the Current Rate of Change in Political Ideologies among

Overview: We will be examining the effects of social and world pressures on the rate of change of political ideologies among teenagers.

School: Belvedere College County: Dublin Teacher: Stephen Carev Student(s): Cormac Docherty, Boris Yu, Mark O'Neil

Title: A statistical analysis to investigate the knowledge surrounding the administration of anaphylaxis injections

Overview: investigating the ability of people who don't have allergies to administer the anaphylactic injection to someone in anaphylactic shock.

School: Kinsale Community School County: Cork

Teacher: Shaun Holly Student(s): Olivia Lordan, Georgina McCarthy

1573

Title: What is the economic effect of the 'School Run'

Overview: We calculated the various cost of people driving to school and

compared that to the cost of the bus service.

School: Portumna Community School County: Galway

Teacher: Niamh Barry Student(s): Stephen Conroy, Caolan Bennett, Darragh Salmon

1574

Title: Suicide Awareness Overview: We want to raise awareness about suicide.

School: Ballymahon Vocational School

County: Longford Teacher: Edel Mooney Student(s): Chloe Dalton, Grace Keegan, Lisa Dowd

Title: Is Dr Google making us a nation of 'cyberchondriacs'?

Overview: An investigation into the prevelance of self-diagnosis through the internet in different age groups and how this hinders and undermines the work of medical professionals.

School: Bandon Grammar School

County: Cork

Teacher: Carena McCarthy Student(s): Sophie Wetz,

Charlotte Jennings, Lauren O'Donovan

Title: A statistical analysis of Irish student's perspectives on the usage of steroids and to raise awareness about the effects they have on your body in the future

Overview: Our project is set out to investigate student's perception on the usage of anabolic steroids and to raise awareness of the effects they have.

School: Coláiste lósaef County: Limerick Teacher: Brian Clarke Student(s): Davieanna Donegan, Aisling O'Rahilly, Alanah Carroll

Title: Cèn fàth go bfhuil mèadù tagtha ar fadhbanna meabhair i mbun dèagòirì

Overview: Beidh muid ag scrùdù cèard iad na prìomh cùiseanna go bfhuil ardù tagtha are fadbhanna meabhair i mbun dèagòirì agus na èifeachtaì atà le sin.

School: Gaelcholáiste Cheatharlach County: Carlow Teacher: Julia Coffey Student(s): Bebhinn Ní Scanláin, Faye Nì Bhuachàin

Title: An investigation into the effects of heavy school bags on young people Overview: our project aims to investigate the problems associated with heavy school bags and how this can be alleviated with the assistance of taking lockers

School: Millstreet Community School

County: Cork Teacher: Shane Breen Student(s): Dylan Sheehan, Brian O'Sullivan, David O'Donovan

Title: The Future of the Mobile Phone Overview: In our project we hope to investigate the future of the mobile phones and what different age groups want from their phone in the future. School: Scoil Mhuire gan Smál County: Roscommon

Teacher: Padraig Harlow Student(s): Louise Fetherstone, Courtney Kelly, Aine Keenan

1580

Title: Mental Health & Alcohol -What's the relationship? Is it time to

Overview: We wish to investigate why teenagers start drinking and if they know the effects it has on their mental health. We will survey teenagers/ professionals.

School: Coláiste Mhuire - Ballygar County: Galway

Teacher: Geraldine Fallon Student(s): Saoirse Ward, Amy Coleman

1581

Title: The Diversity Challenge -Woman in Business Leadership Overview: To investigate into the reasons behind why woman are not taking part in more senior business leadership roles.

School: Loreto Secondary School

County: Kilkenny Teacher: Laura Whelan Student(s): Zoe Fenlon, Aoibhin Leamy, Laura Langton

1582

Title: Food Allergens in Restaurants: Is the Regulation Nuts?

Overview: Our project aims to investigate whether the food allergen regulation currently employed in restaurants in Ireland is adequate for food allergy sufferers.

School: Coláiste Naomh Mhuire

County: Kildare **Teacher:** Nadine Hennessy Student(s): Máire Coghlan, Sorcha Daly, Isabelle O'Dwyer

1583

Title: Does the Girl Fall Far from the STEM?- An Investigation into Gender Inequality in STEM Careers.

Overview: We will research why more boys go into STEM careers than girls do by making surveys and giving them to people of different age groups.

School: Ursuline College

County: Sligo Teacher: Anthony Carolan Student(s): Ellen Bastible, Laura Keane

1584

Title: Personality and conformity Overview: To investigate the possible correlation between personality and conformity















Social & Behavioural Sciences

School: Loreto Secondary School -

Navan County: Meath

Teacher: Clodagh Finnegan

Student(s): Róisín Healy, Fatima Osman, Muireann Hegarty

Title: Overexposed- An investigation into the photo impairment effect and people's propensity to give away living in the moment.

Overview: We aim to find out how overuse of our smartphones e.g. taking photos/videos is negatively affecting our memory and in turn our life experiences.

School: Coláiste Choilm County: Cork Teacher: Karina Lyne

Student(s): Emma Drummond, Holly Butler

1586

Title: Subtle Manipulation: An investigation into people's awareness of the discreet enhancement techniques used by advertisers Overview: This project seeks to determine if people are aware of the subtle influences of advertising

by investigating the impact of the alterations made to advertisements. School: Hazelwood College

County: Limerick **Teacher:** Matthew Finn Student(s): Ellen Reidy, Aine O'Sullivan

1587

Title: An investigation comparing auditory and visual learning on the basis of age and gender.

Overview: Our project aims to discover whether people have better auditory or visual memory depending on the factors of age and gender. School: John The Baptist Community School

County: Limerick Teacher: James Devereux Student(s): Dervla Walsh. Ciara Hynes, Jade Kelly

Title: The effects of fast fashion Overview: we will investigate the effects of the fast fashion industry on the environment, 3rd world, developed world and possible solutions to these problems School: Dominican College -Drumcondra

County: Dublin Teacher: Gemma Kirwan Student(s): Isobel Crerand, Katelin Bratt

1589

Title: A Study on the Effect of Age Ratings on Movies and Video games for Under 15s

Overview: This study's main objective is to analyse students under 15 to find out if age ratings on Movies or

Videogames have their intended

effect.

School: Maynooth Education Campus

County: Kildare Teacher: Tom Dixon

Student(s): Liam Nulty, Robert Parker

Title: To investigate if there is a direct link between parental anxiety and anxiety in their children

Overview: We are going to measure anxiety in parents using a survey and do the same for their children using an adapted survey.

School: Coláiste Na Toirbhirte

County: Cork

Teacher: Declan Cronin Student(s): Nicole Callanan, Fionnuala Murphy

Title: The technological world and its life changing effects

Overview: An investigation into how smartphones and technology can have long term life changing effects on both our physical and mental health.

School: St. Brigid's Secondary School

County: Kerry

Teacher: Emma Cronin Student(s): Caoimhe O'Connor,

Eimear Beazley, Kate Lynch ODoherty

Title: To investigate if students learn sport skills better if they are taught through the use of a coaching app.

Overview: To find out if students who are taught by engaging their minds and not just telling and showing them learn and perform a skill better

School: Trinity Comprehensive School County: Dublin

Teacher: Patrick O'Reilly Student(s): Brandon Kenna, Keith Enright

Title: Does Time Fly? An investigation into time perception

Overview: An investigation into how people view the passing of time based on age, gender, and differing factors such as listening to music, doing tasks etc.

School: Ursuline College

County: Sligo

Teacher: Anthony Carolan Student(s): Bebhinn Reilly, Rose Peyton, Elizabeth Bartlett

Title: Fidgets: Friend or Foe? Overview: Our project aims to investigate the effectiveness of fidgets, such as fidget spinners, chewing gum or music on study and concentration.

School: Le Chéile Secondary School

County: Dublin

Teacher: Ciara Finnegan

Student(s): Terry Jones, Kelvin Tobun

Title: Éifeacht na gCuótaí Inscne ar Dháil Éireann

Overview: Investigate the effects of gender quotas on the makeup of Dáil Éireann before and after gender quotas were introduced in 2012.

School: Meanscoil Gharman

County: Wexford

Teacher: Elaine Nic Réamoinn Student(s): Conor De Rúit, Robbie Mac Giolla Dé

Title: An investigation into the effect of different strategies on success rate in penalty kicks

Overview: We wish to investigate the effect of different strategies on success rate in penalty kicks School: Magh Ene College

County: Donegal **Teacher:** Yvonne Higgins Student(s): Gearoid Sweeney, Shane Towey, Mason Collins

Title: The Mark

Overview: How height and weight affect "the mark" and how the mark effects the match and how it can tilt the match in favor of teams

School: Coláiste Iósaef County: Limerick Teacher: Brian Clarke Student(s): Ryan Negron, John O'Dea, Tony O'Connell

Title: Virtual Fitness

Overview: Investigating the fitness levels after physical activity outside and comparing that to virtual exercise inside within both genders between the ages of fourteen and sixteen.

School: De La Salle College - Dundalk County: Louth

Teacher: Cara Mc Adam Student(s): Cían Conroy, Pauric Craven, Cían Mc Dermott

Title: Meditation and wellbeingwhat's the link? A study into the effects of meditation on the wellbeing of teenage boys.

Overview: This project aims to explore the direct link that meditating can have on the wellbeing of teenage boys over a one month period.

School: Meánscoil Na Mbráithre

County: Clare **Teacher:** Eimear Griffey Student(s): Ruairi Murphy, Niall Hegarty

1600

Title: The Sense of Being Stared At: A statistical analysis of extra sensory perception (ESP)

Overview: To identify the existence and prevalence of the sense of being stared at through an examination of extra sensory perception.

School: Coláiste Choilm

County: Cork Teacher: Karina Lyne Student(s): Keri Murphy,

Hazel Lehane, Brian O'Kane

Title: Managing your mental health Overview: An investigation into effects of different well-being techniques on mental health in a secondary school environment.

School: Coláiste lósaef County: Limerick Teacher: David Owens Student(s): Matthew Byrnes, James Herbert, Liam Sheedy

1602

Title: The Impact of Two Social Media Sites on the Body Image of Teenage

Overview: The main objective of our project is to see the effects and contribution of social media to a teenage girl's outlook on their body image.

School: Christ King Girls Secondary

School County: Cork Teacher: Julia White Student(s): Aoife McTaggart, Cliona McTaggart, Alison Barry

Title: Under the Influence? The effect of social media influencers on daily life Overview: Our project aims to find out in what wavs and to what extent do social media influencers affect peoples' day to day lives.

School: St Mary's Secondary School - Macroom

County: Cork

Teacher: Jennifer Butler Student(s): Rosie Murphy, Ciara Maguire

1604

Title: Trypophobia: Fear Or Disgust? Overview: We set out to test if trypophobia is a true phobia or just an emotional contagion produced on social media, through a number of tests.

School: Bush Post Primary School County: Louth

Teacher: Gary Galvin Student(s): Patrick Johnston, Andrew Moore, Liam O'Donnell

SENIOR GROUP

1700

Title: Meoin daoine faoi hAiste Bia 'Sláintiúil'

Overview: Ba mhaith linn fáil amach cén aiste bia a cheaptar an ceann is sláintiúla m.sh saor ó ghlutan, véigeatóir agus gan carbaihiodráití srl.

School: Gairmscoil na bPiarsach

County: Galway

Teacher: Marianne Ní Thuama Student(s): Lauren Nee, Evelvn Ni Ghriallais. Neasa Nic an Ríogh





Title: Comparison of actual and perceived challenges faced by transgender students at post-primary

Overview: We will compare the actual and perceived issues and challenges faced by post-primary transgender students within the school environment.

School: Oakgrove Integrated College County: Londonderry

Teacher: Laura Corbett Student(s): Daire O'Brien, Chelsea Daly, Aoife McGinley

1702

Title: An investigation into the difficulties faced by Irish youth due to a lack of sexual education in schools. Overview: This project will investigate what emotional and physical difficulties Irish adolescents face due to a lack of sexual education.

School: Schull Community College

County: Cork **Teacher:** Larissa Kelly

Student(s): Joe Arundel Mc Sweeney, Niamh Connolly, Áine Levis

Title: The Effects of Non-Selection for Physical Activities on Adolescents' Mental Well-Being

Overview: Effects of Non-Selection for Physical Activities on Adolescents' Mental Well-Being with a Focus on Young Players who are Rejected by **Professional Clubs**

School: The Abbey School County: Tipperary **Teacher:** Marian Keating

Student(s): Tadhg Carew, Jack Quirke

Title: An Investigation into conformity and how minorities can influence it Overview: This project looks to investigate the level of conformity in different group situations. We wish to examine both internal and external forces leading to conformity.

School: Coláiste Bhréanainn

County: Kerry Teacher: Marie Vaughan Student(s): James Knoblauch, Harry Knoblauch, Oran O'Donoghue

Title: An investigation on the safety of elderly people using pedestrian crossings

Overview: Our aim is to identify difficulties elderly people face when crossing at pedestrian crossings and to develop recommendations to make crossing safer for them.

School: Meán Scoil Muire County: Longford Teacher: Jane Glennon Student(s): Beibhinn Mulcahy, Emma McGoev

1706

Title: Autism! Living with sensory overload.

Overview: our project investigates the effects sound music touch and art therapy has on children suffering with autism or an autistic spectrum disorder

School: Avondale Community College County: Wicklow

Teacher: Aoife Sullivan Student(s): Hannah Kinsella, Aoibheann Hayes

1707

Title: An bhfuil leanaí in ann Pirimid an Bhia a husáid i gceart?

Overview: An bhfuil gasúir na hÉireann ag fáil i ndóthan cothig san aiste bia? An bhfuil siad ag leanacht an pirimid bia i gceart?

School: Gairmscoil na bPiarsach

County: Galway

Teacher: Marianne Ní Thuama Student(s): Eveline Ní Niadh, Ríona De Búrca

1708

Title: An Investigation Into The Disengagement of Galway Teenagers in Politics.

Overview: Looking into the lack of knowledge about and disengagement towards political affairs from young people in Galway, and how to reverse

this disengagement. School: St. Mary's College County: Galway Teacher: Anthony Carey Student(s): Hubert Matuszewski, Morgan O'Callaghan

1709

Title: Is text writing and phrasing killing ability to use the English language correctly?

Overview: Investigating this topic in a society where texting and phrasing is prioritizing using the English language correctly. By using various interviews and techniques culminating various

School: Heywood Community School

County: Laois

Teacher: Niamh Delaney Student(s): Melissa Donegan, Jessica Donegan

1710

Title: An investigation into the teaching and learning of Junior Certificate Physics and the promotion of STEM to female students

Overview: The development of interactive learning resources to improve the learning of the Junior Certificate Physics course, and to promote STEM to female students.

School: Mercy Secondary School

County: Kerry Teacher: Eimear Nolan Student(s): Olivia Moriarty, Tamila Khussainova

Title: An investigation and analysis of the socioeconomic implications of the 'Brexit' on the next generation of

Overview: Our project investigates the potential impact of 'Brexit' on the Irish generation Z, including its implications in areas such as education, trade, tourism and employment.

School: Schull Community College

County: Cork Teacher: Larissa Kelly Student(s): Hollie Collins, Tarah Fleming, Aoife Nash

Title: An investigation into the effect of illicit substance use on student attainment in the Junior Cert Overview: Investigating the impact illegal substances have had on attainment levels in Junior cert English, Maths and Science. School: Lanesboro Community

College County: Longford **Teacher:** Michael Lyons Student(s): Patrick Kenny, PJ Connaughton, Oran Walton

Title: DITCH YOUR CARBON CUP

Overview: Ditch Your Carbon Cup Print is an environmental project, reducing Carbon Emissions locally and nationally by encouraging people to ditch the disposable paper cup. School: Scoil na mBráithre Chríostaí

County: Cork **Teacher:** Maria Kelly Student(s): Eamonn O' Sullivan, Conor Buckley, Paul Drinan

Title: Border Towns and Brexit **Overview:** To investigate the impact of Brexit on our local town and surrounding area.

School: St Bricin's Vocational School

County: Cavan

Teacher: Anne-Marie Tackney Student(s): Jake Rogers, Ciarán Egan, Kamil Podgajny

1715

Title: Asking the Future about the Present - The Statistics of Cognitive Conflict in Relation to Refugees in Ireland.

Overview: Using statistics to measure the views of adolescents, young adults and adults on refugees with an experimental and control questionnaire using hypothetical scenarios.

School: Crescent College Comprehensive County: Limerick Teacher: Emma Lynch Student(s): Thomas Gomes, Donnacha Henchy, Jack Murtagh

Title: A statistical analysis on the gender inequality in leadership roles in the education sector

Overview: Our project aims to investigate the gender roles present in the education sector and the inequality between genders in leadership roles.

School: Coláiste lósaef County: Limerick Teacher: Sharon Magner Student(s): Rebecca Corkery, Megan Kennedy

1717

Title: How far will you go? Using Impulsivity to predict gambling instincts with a modified UPPS-P test Overview: Our project tests the possibility of developing a gambling problem using a UPPS-P Impulsivity Scale and correlating results with two simple chance games

School: St. Mary's College County: Galway Teacher: Anthony Carey Student(s): Fergal Byrne, Michael Lukvanov

Title: Codladh I Do Chulaith Scoile Overview: The investigation of the impact of sleep during the school day on students concentration and performance in the class. Would a nap class be helpful?

School: Mercy College County: Sligo

Teacher: Caoimhe Lynn Student(s): CarolAnn Monaghan, Grainne Redmond, Julie Gaine

Title: Attacking Eye Tracking Overview: Our Attacking Eye-Tracking system aims to improve speed and accuracy of recall when reading and has been designed to assist students with eye tracking difficulties. School: Loreto Secondary School -

County: Meath **Teacher:** Lisa Darley Student(s): Lauren Freyne, Johannah Fennessy

1720

Title: Is your mobile making you less

Overview: Our project is trying to prove that increased access to mobile phones is what is making our generation physically unhealthy. School: Adamstown Community

College County: Dublin Teacher: Jane Halloran Student(s): Mary Adekoya, Dhanya Binoy



















Chemical, physical & mathematical sciences

JUNIOR INDIVIDUAL

Title: Investigating the amount of synthetic dyes in various foods and drinks using a homemade spectrophotometer

Overview: This project has 2 parts; the construction of a homemade spectrophotometer: which is used to measure the amount of synthetic dyes in foods and drinks.

School: St Mary's College **County:** Londonderry Teacher: Ann Blanking Student(s): Ava Canney

Title: Ag tógáil luasaire caithnín Cockroft-Walton

Overview: Tógfaidh mé lúasaire prótóin Cockcroft-Walton, agus feicfaidh mé ar an radaíocht a dhéanann an léas nuair a bhuaileann sé trí tairgead difrúila, bismuth, litium, HBo3.

School: Coláiste Eoin County: Dublin Teacher: Seán Ó Murchú Student(s): Max Ó'Donnchú

Title: Development of Theoretical Mathematical Models Regarding the Physics of Moment and Levers Overview: The aim of this project is to mathematically describe how a body with mass will act while balancing on a fulcrum.

School: St. Fintan's High School County: Dublin

Teacher: Cathy Reilly Student(s): Michael Doyle

2103

Title: An Unusual Problem Involving Sums of Powers of Natural Numbers Overview: A method for generating identities involving sums of powers of natural numbers is developed. These identities provide one-parameter solutions of certain Diophantine equations.

School: Synge Street CBS County: Dublin Teacher: Martha Nolan Student(s): Marton Goz

2104

Title: An Investigation to Find Out the Quantity of Microplastics in Bottled Water

Overview: In my project, I aim to find out if there are microplastics in bottled water and if so how much can he found.

School: Kinsale Community School

County: Cork Teacher: Shaun Holly Student(s): Ivanna Janse Van Rensburg

Title: Electricity from Photosynthesis Overview: Is it possible to extract

energy from plants? Through photosynthesis plants produce organic matter and "waste product" that can be collected and directed in electricity.

School: Santa Sabina Dominican

College County: Dublin Teacher: Andrew Hone Student(s): Eva Guiden

Title: A Hele-Shaw cell experiment Overview: Hele-Shaw flow is flow of fluid between two plates which have a very thin space between them. Under pressure, the fluids form interesting

School: Our Ladys College - Drogheda

County: Louth

Teacher: Frances O'Regan Student(s): Sorcha McGeown

Title: How Would a Weakening of the Earth's Magnetic Field Affect Aurora Borealis?

Overview: The Earth's magnetic field weakens every few 100,000 vears prior to its pole reversal, so what would this effect have on the Aurorae?

School: Blackrock College County: Dublin

Teacher: Hugo Rowsome Student(s): Rory Luff

2108

Title: An Investigation to compare the antioxidant effects of natural and synthetic food preservatives

Overview: I am researching the use of antioxidants in food and looking into the possibility of using more natural alternative food preservatives.

School: Desmond College County: Limerick Teacher: Marie Corkery **Student(s):** Emily Garrett

Title: Extensions of Escott's Infinite Product Method for Calculating

Square Roots

Overview: A method of obtaining new algebraic identities is described. These identities generate infinite products that can calculate square roots with very great accuracy.

School: Synge Street CBS County: Dublin Teacher: Elaine Egan Student(s): Yaduvir Arhangi

INTERMEDIATE INDIVIDUAL

2200

Title: Modelling Electrochemical Cell

Overview: Using both computer modelling and experimental data, I aim to investigate the most efficient and cost-effective configurations and operating conditions of electrochemical cells.

School: Wellington College

County: Antrim Teacher: David Cardwell Student(s): Harvey Donnelly

Title: The design and testing of a slow release drug system

Overview: My project is the design of a device using chemistry principles that would be suitable for intravenous placement for long-term drug release.

School: Sutton Park School

County: Dublin

Teacher: Catherine Tattersall Student(s): Áine Shiels

2202

Title: An investigation into the effect of common drinks in the dissolution of kidnev stones

Overview: To investigate common drinks which could be used to significantly reduce the size of artificially synthesised kidney stones.

School: C.B.S. Roscommon County: Roscommon Teacher: Breege Grennan Student(s): Jonathan Bontha

Title: Using Nanoparticles to increase the Heat Transfer of a Domestic

Overview: In my project I am using nanoparticles to increase the heat transfer of a domestic radiator. This will ultimately save money and

School: Phobailscoil Iosolde

County: Dublin Teacher: Lynda Jordan Student(s): Áine Measey

Title: On the Constant Occurring in Haruki's Lemma

Overview: Haruki's lemma involves a configuration of five points on a circle. I have proved a formula for the 'constant' in this lemma.

School: Synge Street CBS County: Dublin Teacher: Ger Davin Student(s): Chirag Joshi

2205

Title: Aluminium - Let's Reflect on

Overview: My project is an investigation into the leaching process of aluminium while cooking with it in the form of 'tin foil'.

School: Santa Sabina Dominican

College County: Dublin Teacher: Paul Nugent Student(s): Hannah Killeen

2206

Title: How much do dirty car headlights affect driver visibility? Overview: My idea is to find out how the build-up of salts and road grime on vehicle headlights, affects the light quality from the headlights.

School: Mary Immaculate Secondary

School - Lisdoonvarna County: Clare Teacher: John Sims Student(s): Kate Considine

Title: Investigating The Effects Of A Magnetic Field On Plant Growth And Germination

Overview: A study of the affects of a static magnitic field on seed germiation rates for possible application in developing countries. School: Phobailscoil losolde

County: Dublin Teacher: Lynda Jordan Student(s): Lucy Parkin

Title: Using Machine Learning to Locate Exoplanets

Overview: Using machine learning to analyse data from the W.M Keck Observatory in Hawaii to locate exoplanets, which are planets orbiting stars outside our solar system.

School: Mount Mercy College

County: Cork

Teacher: Aaron O'Sullivan Student(s): Laura O'Sullivan

2209

Title: A Network Model to Analyse

Peer Learning

Overview: This project investigates the network structure of peer to peer learning for senior cycle secondary school students.

School: Coláiste An Spioraid Naoimh

County: Cork **Teacher:** Tim Kerins

Student(s): Aidan Mamo Cooney

Title: Reducing Particulate Pollution Using Ionisers

Overview: Calibrating air ionisers and build a prototype suitable for vehicle exteriors to help reduce particulate pollution in an urban evironment on a distrobuted macroscopic scale.

School: Coleraine Grammar County: Londonderry Teacher: Trina Reid Student(s): Shreya Ghaie

Title: An Unusual Continued Fraction Expansion for the Base of Natural

Overview: Using the matrix representation of continued fractions I provide a proof of a very unusual continued fraction expansion of the base of natural logarithms.

School: Synge Street CBS County: Dublin **Teacher:** Shane Freeman Student(s): Benedek Goz

2212

Title: An Investigation of Mersenne Prime Numbers

Overview: I want to investigate if there is an infinite amount of





Mersenne prime numbers. I also want to create a program to efficiently

generate them. School: Castletroy College

County: Limerick Teacher: Ellen Murnane Student(s): Aodhán Gallagher

2213

Title: Warming Up to Free Heating Overview: My project is to design a solar pannel heater to heat peoples homes, not just water. My idea would save money and reduce fossil fuels.

School: St Aloysius College -Carrigtwohill

Teacher: Angelina Carew Student(s): Ava Kate Beausang

2214

County: Cork

Title: Hi Hydraulics! Vertical Railroad

Switch Using Hydraulics

Overview: For this project I made a railroad switch that works vertically using hydraulics.

School: St Louis High School

County: Dublin

Teacher: Catherine Clayton Student(s): Helen Ryder O'Neill

2215

Title: The Prevention of Sodium Chloride Build-Up on Glass Surfaces Overview: An investigation into the science behind the build-up of sodium chloride on glass windows and how to prevent this build-up.

School: Blackrock College County: Dublin

Teacher: Hugo Rowsome Student(s): Conor Slattery

Title: King Arthur and Harry Potter? A Computational linguistic analysis to prove Arthurian themes

Overview: Computational linguistic analysis of the Harry Potter series of novels. To identify and highlight parallels and influences that the Arthurian legends have in these books.

School: Jesus & Mary Secondary

School County: Sligo

Teacher: Margaret Kenny Student(s): Gordon McHale

2217

Title: Applying the brachistochrone to sport

Overview: taking the

brachistochrone, a shape found in maths and physics, and applying it to sport to see if new or better feats are possible.

School: St Pauls College

County: Dublin Teacher: Brian Duffy Student(s): Michael Joyce

2218

Title: Fréamhshamhail díleáiteoir anaeróbach baile a thógáil chun áit úsáid bhreoslaí iontaise sa teach a

ghlacadh.

Overview: Beidh mé ag dhéanamh taighde ar mo athróga agus tairisigh agus ag thógail díleáiteoir anaeróbach baile feidhmiú a dtig linn a úsáid in ár saol.

School: Coláiste Ailigh County: Donegal

Teacher: Shane Ó Breacáin Student(s): Amy Nic Giolla Iontóg

SENIOR INDIVIDUAL

2300

Title: Glogos - Self-Illuminating Clothing

Overview: The aim of this project is to investigate alternative methods of making hi-vis clothing 'glow' to

improve wearer safety. School: Avondale Community College

County: Wicklow Teacher: Aoife Sullivan Student(s): Seán Byrne

Title: Applications of Queuing Theory to the Public Orthodontic Treatment System

Overview: An analysis of the Public Orthodontic Treatment system using mathematical modelling to provide multi-case data to aid optimisation and efficient resource management. School: Coláiste An Spioraid Naoimh

County: Cork Teacher: Tim Kerins Student(s): Tony O'Halloran

2302

Title: A statistical analysis of Irish winning lotto numbers

Overview: I want to analyse the winning lottery numbers and devise a system showing certain number combinations to play or avoid to improve winning odds.

School: Mary Immaculate Secondary

School - Lisdoonvarna County: Clare Teacher: John Sims Student(s): Fearghal Burke

Title: Developing a qualitative method of detecting silica in sandblasted denim fabric

Overview: Sandblasting is a critical issue, prompting silicosis in exposed factory workers. I will develop a detection method so the textile industry can regulate its usage.

School: Mohill Community College County: Leitrim

Teacher: Jacqueline Muldowney Student(s): Ezekiel Djeribi Stevens

Title: An investigation Into the applications of de Rham cohomology to Riemann surfaces

Overview: This project will investigate whether or not de Rham cohomology can be used to analyse and extract new information from Riemann surfaces in topology.

School: Coláiste Phádraig - Lucan

County: Dublin

Teacher: Jacqueline Farrell Student(s): Dáire Byrne

Title: A Wavelength, Frequency and Visual Spectral Analysis of Human

Accents

Overview: A closer look at differences, similarities and mathematical and physical properties between human voices from different people. What makes us sound unique?

School: Phobailscoil losolde

County: Dublin Teacher: Lynda Jordan Student(s): Kacper Nowak

2306

Title: Magic Marbles

Overview: A project investigating the properties and applications of liquid and gas marbles.

School: Loreto College Coleraine

County: Londonderry Teacher: Maeve Close Student(s): Susan McKendry

2307

Title: An investigation into the removal of microplastics from water using ferrofluids.

Overview: This project aims to investigate the efficacy of ferro fluids in the removal of microplastics from water. The concentration of microplastics is measured using a home-built spectrometer.

School: Schull Community College

County: Cork Teacher: Larissa Kelly Student(s): Fionn Ferreira

Title: Nature vs Nurture: The comparison of organic spider silk vs silk-like polymer on the grounds of mechanical properties and viscoelasticity

Overview: My project aims to make a long-chain nylon polymer, with a elasticity, tensile strength, and durability greater then that of spiders silk webbing.

School: Patrician Secondary School

County: Kildare Teacher: Colin Doheny Student(s): Evan Mather

2309

Title: Reasoning in Intelligent Systems: Abstraction and Structure **Overview:** Feature-rich data presents a problem ripe for exploration through regression analysis; a decisiontheoretic approach that intelligently determines the salient features necessary for making predictions. School: Summerhill College

County: Sligo Teacher: Derek Wynne Student(s): Luke Hamilton

2310

Title: A Data Analytical Approach to

Classifying Odours according to their

Chemical Properties

Overview: The classification and prediction of odour molecules based on their chemical properties and structures using statistical and data analytical techniques.

School: St Finian's College County: Westmeath Teacher: David Andrews Student(s): Eimear Kyle

JUNIOR GROUP

2400

Title: Experimental and theoretical investigation of air resistance on falling coffee filters and ping pong balls

Overview: We compare theoretical and experimental data to model the motion coffee filters and ping pong balls as they fall under gravity.

School: Dominican College County: Wicklow Teacher: John O'Brien Student(s): Lily Devitt, Isabella Downey

2401

Title: Boilgeoga & Broidearnach! Staidéar ar ráta imoibríocht Berocca Overview: Táimid ag fiosrú an éifeacht a bhfuil ag réimse tuaslagóir agus an cineál coimeádán, gloine nó plaisteach ar ráta imoibríocht taibléidí broidearnach cosúil le Berocca.

School: Gaelcholáiste Luímnigh

County: Limerick Teacher: Ciara Ní Dhrisceoil Student(s): Anna Shaw, Teagan McGarvey

2402

Title: A Chemical Investigation of the effects that an Open Sewer Pipe has on the Sea Water Quality of Five West Cork Beaches

Overview: Chemically analyse and compare sea water samples taken from five beaches and show the effect that an open sewer pipe has on their water quality.

School: St. Brogan's College County: Cork

Teacher: Karen Keohane Student(s): Rachel Lordan, Emma Kelly

2403

Title: Investigating the factors that affect the marinating of foods **Overview:** This project investigates the factors that affect the adsorption of marinating ingredients to foods to give them more flavour.

School: St Mary's College **County:** Londonderry Teacher: Ann Blanking Student(s): Cora Nicholl, Grace Canning

2404

Title: Insects as a Reliable Food Source for the Growing Population Overview: We looked at different types of insect that could be used as





Chemical, physical & mathematical sciences

a food source, for the population as

School: Skerries Community College

County: Dublin

Teacher: Louise Sullivan Student(s): Mia Kelly, Ruby Mitchell Sherwin

2405

Title: A Comparison of Predicted Weather Versus Actual Weather. Is There as Much of a Difference as People Think?

Overview: Our project aim is to compare predicted weather data to actual weather, and see if there is as much difference between them as people think.

School: Avondale Community College

County: Wicklow Teacher: Aoife Sullivan Student(s): Nathan Delamere, Luke Doyle

2406

Title: The physics of the trebuchet

Overview: We investigate the physics behind the trebuchet catapult and what factors affect it's ability to hurl

School: Dominican College County: Wicklow Teacher: John O'Brien Student(s): Rachel Werner. Catherine Moyseyeva

INTERMEDIATE GROUP

2500

Title: An investigation into the phytoremediation of fertliser runoff in Co. Roscommon

Overview: We are investigating the ability of different types of plants to remove fertiliser runoff from water which will prevent it getting into our streams.

School: C.B.S. Roscommon County: Roscommon Teacher: Breege Grennan Student(s): James Mooney, Sean McLoughlin, Kevin Fannon

Title: The Friction Self-contradiction **Overview:** An in-depth investigation of the effects of heat on the force of friction on a number of different surfaces.

School: Coláiste Choilm County: Cork Teacher: Paudie Scanlon

Student(s): Andrew O'Mahoney, Seán O'Donoghue, Jack Desmond

Title: A study to identify the various aspects of meteors above SW Ireland using video footage and developing an algorithm to determine camera placement for optimal viewing and accuracy

Overview: We will be tracking meteors from south west Ireland using detection equipment and

developing an algorithm to determine camera placement for optimal viewing

School: Colaiste Treasa - Kanturk

County: Cork

Teacher: Derry O'Donovan Student(s): Roisin Kavanagh, Leah Murphy

2503

Title: A Quantitative Analysis of Marine Microplastics on the West

Overview: We are going to analyse the level of microplastic in sea water at 25 beaches along the West Cork Coast

School: Clonakilty Community College

County: Cork

Teacher: Patrick O Keeffe Student(s): Padraic Cullinane, James Moloney, Conn Dineen

2504

Title: Sound of Music

Overview: We'll make a D.I.Y speaker using a swirl of copper wire pasted on a piece of paper and placed close to a neodymium magnet.

School: Ursuline College County: Sligo

Teacher: Anthony Carolan Student(s): Fatma Dogan, Leah Fehrmann, Grainne Devaney

Title: Fruit Ripeness

Overview: Testing whether or not sound can be used to reveal if fruits are ripe or not.

School: Loreto High School

County: Dublin

Teacher: Angela Benson Student(s): Aishling Mcgrath,

Zara McCreery

2506

Title: Need for Speed:An investigation into the effect competition has on your speed when sprinting.

Overview: An investigation into how your sprinting speed is affected by the people you are sprinting beside and whether or not you are faster sprinting alone.

School: Heywood Community School

County: Laois

Teacher: Aodhagan O Suilleabhain Student(s): Floriana Mezzapelle, Jessica Barrett, Sarah McMahon

Title: An Education Programme Investigating The Physics of Our Amusement Parks

Overview: We wish to create a programme for physics students, based on conducting experimental tests on various rides, in an amusement park environment.

School: Loreto Secondary School -Balbriggan

County: Dublin Teacher: Niamh Mc Nally Student(s): Ella Cooper, Emma Finnegan

Title: Windy Cities - Air movement in an urban environment

Overview: A study on how building planning and placement in cities can affect the movement and congestion of wind, including practical research and computer simulations.

School: St. Fintan's High School County: Dublin

Teacher: Cathy Reilly Student(s): Daragh Hollman,

Frank Wolfe

2509

Title: An investigation into the effects of vaporizers on plant growth Overview: The effects of vaping on

School: C.B.S. Roscommon County: Roscommon Teacher: Breege Grennan Student(s): Daire McDonald, Mark Purcell, Oisin Connaughton

Title: investigating the extraction process of resveratrol from japanese knotweed root and the possibility of its use as a bio fuel.

Overview: This involves using various solvents and the ratio of solvents for the extraction process. We are investigating the output energy of various amounts of this fuel.

School: Ursuline Secondary School - Thurles

County: Tipperary Teacher: Anne Molony Student(s): Emma-jayne Burke, Anna Downey, Kate Williams

Title: Using sodium alginate and calcium lactate infused capsules as a method of drug delivery for young children and those on long term medication

Overview: Capsules made from sodium alginate and calcium lactate to hold tablets. These capsules make taking tablets easier for children and adults who find it difficult.

School: Terenure College County: Dublin Teacher: Aine Hallahan Student(s): Michael La Grue, Jack Mulhern

2512

Title: Classroom CO₂ levels and its effect on student cognitive performance

Overview: Through the use of sensors and dataloggers we are monitoring the levels of CO₂ in various classrooms and studying its effects on student cognitive performance.

School: Athlone Community College County: Westmeath Teacher: Martina Roache

Student(s): Danielle Greasley, Jenny Seery

Title: Is the Maths in The Music? Overview: An investigation into the effect of the use of Fibonacci numbers to increase the appeal of twenty-first century music

School: Scoil Mhuire - Ennistymon

County: Clare

Teacher: Sue-Ann Sheridan Student(s): Niamh McMahon, Lara Mellett, Lucy Nunan

Title: Generalizations of n-Space Geometric Projections and Transformations

Overview: This project generalizes n-dimensional transformations (rotation, translation, and scaling), along with orthographic and perspective projections, in order to visualize complex datasets and n-dimensional polytopes

School: Skerries Community College

County: Dublin

Teacher: Louise Sullivan Student(s): Adam Kelly, Sam Enright

Title: The creation of a gluten detection kit

Overview: Investigating the fuctionality of our kit to measure the amount of gluten in an item of food, using gliadin peptides, magnetic beads, aptamers and selected food

School: Scoil Mhuire gan Smál County: Roscommon Teacher: Padraig Harlow Student(s): Keira Crosbie, Megan Farrell

Title: Superheroes Just Add Science! Overview: Our project aims to examine superheroes from comic books and apply science to their super-human feats to show what would happen in the real world.

School: Cabinteely Community School County: Dublin Teacher: Maura Harte

Student(s): Conor Slevin, Adam Quinn, Philip Menton

2517

Title: Not Just For Nails Overview: Our project is the research and design of a product which can be carried on a night out to detect spiked

School: Presentation Secondary

School - Thurles County: Tipperary Teacher: John Flynn Student(s): Laura Murphy, Sarah McCarthy, Lichelle Mogge

2518

Title: Coastal Erosion in South West Donegal (1951-2017)

Overview: How the coastline of South West Donegal has changed over the last sixty-six years.

School: St Columba's Comprehensive





School

County: Donegal Teacher: Kathleen Molloy Student(s): Edward Moss, Conor Mc Crossan

2519

Title: Comhchosúlachtaí idir an cúbe agus an teitrihéadrán

Overview: Ag deanamh fiosrú ar na airíonnaí cosúla atá ag na 2 solad platónach 3D an cúbe agus an teitrihéadrán i toisí eagsúla.

School: Gaelcholáiste Chiarraí County: Kerry

Teacher: Tríona Uí Mhaolchatha Student(s): Leah Ní Sheanacháin, Cian Morgan

2520

Title: Designing and 3d printing stable bridge designs

Overview: We will test Beam, Truss, Arch, Cantilever, Cable-stayed, and Suspension types of bridges and their stability using 3d printed scale

School: Sandford Park School Ltd County: Dublin

Teacher: Dana Kilroy Student(s): James Sharkey,

Bhavesh Sood

SENIOR GROUP

2600

Title: Investigating the effects of exposing the polymer BPA within plastic bottles to UV Light and examining if the depletion rate is influenced by the liquid within a bottle. Overview: We aim to investigate if the rate of depletion of BPA is influenced

by the liquid contained in a plastic bottle when exposed to ultraviolet.

School: Pobalscoil Neasain - Baldoyle

County: Dublin Teacher: Gemma Buicke Student(s): Alex Molloy, Amadeus Anjos

2601

Title: The development and testing of a simple, inexpensive wound dressing that indicates infection

Overview: This project involves the design, development and testing of a simple, inexpensive wound dressing that can indicate is infection is present.

School: St Mary's College County: Londonderry Teacher: Ann Blanking Student(s): Kayleigh Doherty,

2602

Lesley Devlin

Title: An Investigation into the Deposition of Metallic Particles in E-Cigarette Vapour.

Overview: Our project aims to further investigate the metals present in e-cigarette vapour, where these metals are coming from and the health effects they may cause. School: Scoil Mhuire Community

School

County: Kildare Teacher: Helena Lynn Student(s): Gráinne Lawlor, Enya Nordon

2603

Title: Exactly Solvable Perturbations

of Planetary Orbits

Overview: Methods proposed by

Jacobi and McGehee are extended to obtain exact formulae for the orbits of centrally and non-centrally perturbed inverse square law forces.

School: Synge Street CBS County: Dublin Teacher: Kate Walsh Student(s): Haroon Hussain, Gleb Kurilenko

2604

Title: Water Bridges

Overview: An investigation into the phenomena which occurs between two beakers of deionised water when a high voltage is applied across them. School: Loreto College Coleraine

County: Londonderry Teacher: Maeve Close Student(s): Dónal Close, Siân Donaghy

2605

Title: Using UVC Photometry to measure the caffeine content of various drinks

Overview: We are using ethyl acetate to extract caffeine from drinks. By measuring the absorption of 275 nm light, we calculate the caffeine content.

School: Dominican College County: Dublin

Teacher: Orla Condren Student(s): Grainne Duggan, Caitlin Ni Shuilleabhain

Title: Assessing the enhancement of radioactivity in plants grown in selected Cork soils; environmental implications of long-term use of Phosphate fertilizer. Overview: Using gammaspectrometry and CR-39 detectors in assessing the radioactivity in plants grown in selected Cork soils and the implications of the use of Phosphate fertilizer.

School: St Mary's Secondary School

- Mallow County: Cork

Teacher: Martin Timmons Student(s): Caoimhe Cronin,

Shauna Murphy

Title: Can a Chua circuit really be used

to produce random sequnces Overview: Chua's circuit can produce

a mixture of random and periodic signals and we want to explore their ability to generate truly random

School: Coláiste Phádraig - Lucan

County: Dublin Teacher: Jacqueline Farrell Student(s): Azmain Faiq Bin Abduzzaher, James McDonagh

2608

Title: The Memory effect **Overview:** This is a project which investigates a newly discovered 'memory' effect suggesting that crumpled sheets 'remember' the application and removal of a force for days.

School: Loreto College Coleraine **County:** Londonderry Teacher: Maeve Close Student(s): Fearghal Close,

Seán Doherty, Dominic Bradley

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Technology

JUNIOR INDIVIDUAL

3100

Title: Organo Chew

Overview: Organo chew is creating a cleaner environment. Completing successful experiments to dissolve chewing gum using organic produce, natural light and recyclable containers.

School: Killorglin Community College

County: Kerry Teacher: Donal O'Reilly Student(s): Chloe Nagle

3101

Title: String Save - New String Instrument Tuning Peg Design and Development

Overview: String Save is a new concept string instrument tuning peg designed to prevent musical strings being over-tensioned and breaking during tuning and during play. School: Kinsale Community School

County: Cork Teacher: Shaun Holly Student(s): Rory O'Leary

Title: Hel-Mate - A concussion monitoring device

Overview: My project is a helmet sensor that detects if you have a concussion. If a concussion is detected an application will notify the team doctor.

School: Castletroy College County: Limerick Teacher: Ellen Murnane Student(s): Liam O'Mara

Title: Madralert - a Methane Gas Alarm for Dogs.

Overview: The "Madralert" is programmed using snap4arduino and an input and output sensor. The sensor detects methane and emits a high pitched sound that deters dogs. School: F.C.J. Secondary School

County: Wexford Teacher: Michael Ruane Student(s): Pierce Ryan

Title: The Design for a Cooking Water Conservation System for Developing Countries

Overview: This is a design for a system to condense steam to water from cooking and stored in aquabeads for plant growth in drought prone countries.

School: Sutton Park School County: Dublin

Teacher: Catherine Tattersall Student(s): Amelie Kearney

3105

Title: SafeRide

Overview: My idea is a device that is secured to a bike's handlebars and records video any time a vehicle comes within 1.5 metres.

School: Beaufort College County: Meath Teacher: Sean Hughes

Student(s): Benjamin Soroos

Title: Clearwater: Correct UV energy for safe drinking water

Overview: My project looks at a how to automatically know when water has received enough UV light from diodes to make it safe to drink.

School: Ard Scoil Na Mara County: Waterford Teacher: Niamh Shannon Student(s): Caoimhín O'Leary

3107

Title: A solar thermal collector efficiency measurement device and analysis

Overview: My project aims to create a device which can collect data on a solar thermal collector to determine its efficiency

School: Gallen Community School

County: Offaly

Teacher: Stevan McGrath Student(s): Eoin Sheridan

Title: Cultivation on ocean

Overview: Building a CCP (Cultivation Control Panel) to monitor the pH level of water, amount of light for plant growth and optimum temperature for ships greenhouse.

School: Our Lady's Bower County: Westmeath Teacher: Julie-Anne Greaney Student(s): Nirmitha Premnath

3109

Title: Data wave emitter via laser beams.

Overview: I plan to send information, such as text and images through laser beams flashing at high speeds. The information is interpreted through a solar cell.

School: Presentation de la Salle

College

County: Carlow

Teacher: Michelle Bridgett Student(s): Mike Meaney

3110

Title: Reducing Anxiety in First Year Orientation, using a 3D Game Overview: A 3D game based on the School's layout for incoming students, to navigate the school, in a familiar setting prior to stressful crowded corridors.

School: St Conleth's Vocational School

County: Kildare Teacher: Bernie McMahon

Student(s): Joey King

INTERMEDIATE INDIVIDUAL

3200

Title: Using Neural Networks to Mark State Exams

Overview: State examinations to

be completed online. Results then corrected by a Convolutional Neural Network, and to be submitted for collation and dissemination for Results Day.

School: St Marys College - C.S.Sp.

County: Dublin Teacher: John Nisbet Student(s): Aidan Dowling

Title: FILTER | An algorithm to help detect and combat Fake News **Overview:** Filter is an algorithm which is able to detect the ongoing problem of fake news to better educate people on current affairs

School: Coláiste Iósaef County: Limerick Teacher: Brian Clarke Student(s): Alex Goodison

3202

Title: Scrum Developer

Overview: Develop good scrum habits by including electronics into a scrum tackle bag that will provide feedback to coaches and players ensuring their technique is correct.

School: Desmond College County: Limerick Teacher: Donal Enright Student(s): Ronan Mullane

3203

Title: Modelling Evolution: a gradient descent approach to predicting population genetics

Overview: Using a evolutionary approach to designing real world projects through the use of computer simulation

School: Kishoge Community College

County: Dublin Teacher: Micheal Griffin Student(s): Zac Reid

3204

Title: The Development of an Interactive and Tactile Learning Programme for Children with Autism Spectrum Disorder Using Modular Robotics

Overview: Creation of an interactive tactile lesson for students with Autism Spectrum Disorder to assist with their self management skills using modular robotic toys.

School: Phobailscoil losolde County: Dublin Teacher: Lynda Jordan Student(s): Hayley Brady

3205

Title: The Use Of Augmented Reality To Enhance Students Learning

Experiences

Overview: The use of augmented reality with belief that this idea if incorporated into schools can enhance students learning experience in subjects like science and history. School: St. Clare's Comprehensive

School County: Leitrim Teacher: Edel McPhelim Student(s): Chris Curran

3206

Title: 'Grind No More': Reducing The Incidence Of Bruxism (Tooth Grinding) Overview: The aim of my project is to develop an innovative device to increase sensory input, which is known to mitigate tooth grinding.

School: Coláiste Choilm

County: Cork

Teacher: Paudie Scanlon Student(s): Mariah Sheehan

Title:: Improved electrochemical capacitor incorporating doped graphene and a liquefied gas electrolyte

Overview: An improved electrochemical capacitor using fluoromethane and Tetraethylammonium tetrafluoroborate as a liquefied gas electrolyte with doped graphene as

the plates. School: Magh Ene College County: Donegal Teacher: Yvonne Higgins Student(s): Matthew Barry

3208

Title: Spherical Wheel System Overview: My goal is to invent a magnetic spherical wheel system which will drive in all directions. It would enable vehicles more flexibility

in confined spaces. School: Calasanctius College

County: Galway Teacher: Christina Kenny Student(s): Alice Shaughnessy

3209

Title: Class Spell

Overview: A brand new innovative iOS App helping people to improve their spelling capabilities.

School: New-Bridge Integrated College County: Down Teacher: Dara Morgan Student(s): Jack Delaney

3210

Title: Helmets for Hockey Overview: The objective of this project is to investigate the possibility of helmets for Hockey players. School: Seamount College County: Galway

Teacher: Jamie Connors Student(s): Muireann Faherty

3211

Title: The Imitation Game Overview: A project to develop a chatbot (Virtual Agent) capable of winning Alan Turing's Imitation Game. School: Scoil Mhuire gan Smál -

Blarnev County: Cork

Teacher: Elaine Keane Student(s): Sarah Sweeney





3212

Title: Safety for A.S.D. Overview: My project aims to insure the safety of children with autism in

controlled environments and improve awareness of the safety issues that these children face.

School: St Mary's Secondary School

- Macroom County: Cork

Teacher: Jennifer Butler Student(s): Kitty Clancy

Title: Investigating the energy impact of crypto-currency mining Overview: An investigation into the feasibility of mining Bitcoin/ crypto-currencies using renewable energy sources such as wind or solar, to increase efficiency and reduce environmental impact.

School: Meánscoil Na Mbráithre

County: Clare **Teacher:** Sean Murphy Student(s): Patrick Sheridan

Title: VPN - One in Every Home Overview: A solution to internet safety by creating a VPN School: Jesus and Mary Secondary School, Our Lady's Grove County: Dublin Teacher: Marc Paul Lynn Student(s): Emma Babos

Title: Using facial recognition and Al as assistive technology for moderate stage dementia patients.

Overview: My project uses image recognition, Al and speech synthesis as assistive technology for early and moderate stage dementia patients. School: Bandon Grammar School

County: Cork Teacher: Carena McCarthy Student(s): Gregory Tarr

Title: Quantifying Whiplash: An IoT Sensoring Approach to Help Reduce Insurance Claims Costs

Overview: This project attempts to quantify real impacts of whiplash cases by using IoT enabled devices and a process to provide real data for proper assessment.

School: Salesian College - Celbridge County: Kildare

Teacher: Jorge Andres Student(s): Odhran Brady

3217

Title: Life Line

Overview: An app providing aid in the form of CPR guidance and emergency contact help when there has been a cardiac arrest and CPR is needed.

School: Ursuline College County: Sligo

Teacher: Anthony Carolan Student(s): Eimear Kearins

3218

Title: LightMyFret - Easier Way To Learn The Guitar Using LED's Overview: My project aim is to help people learn the guitar with a fun and easier experience using LED's

School: John The Baptist Community

School

County: Limerick Teacher: Sarah O' Dwyer Student(s): Darragh Condell

SENIOR INDIVIDUAL

3300

Title: Music Through Neural Networks Overview: Exploring the ability of Neural Networks to represent music, starting with classical music. And sharing the tools for doing so with the world.

School: Scoil Chonglais County: Wicklow Teacher: Eileen Gallagher Student(s): Agustin Plaza Reino

Title: Machine Learning in the Treatment of Molar Cancer Overview: I aim to use machine learning and artificial intelligence to improve the treatment and detection of Gestational Trophoblastic Disease, more commonly known as Molar Cancer.

School: Coláiste Muire - Crosshaven

County: Cork

Teacher: Richard McGlade Student(s): Andrew Nash

3302

Title: Poem Machine Translation

Overview: Developing a machine translation system to translate Spanish poems to English. School: Alexandra College County: Dublin

Teacher: Patrick Cushen Student(s): Tianyiwa Xie

Title: An autonomous system that provides information on the wellbeing of a patient with a chronic

Overview: I'm developing a medical device for assisting caregivers, in the care of the elderly. Integral to the device is its autonomony and feedback, in realtime.

School: North Monastery Secondary School

County: Cork Teacher: Frank Murphy Student(s): Danila Fedotov

3304

Title: River-Nanny - Analysis and Monitoring River Ecosystems -Balancing Drinking Water Use with Natural Environment in a Changing

Overview: Climate Change is creating increasing pressures on Drinking

Water Use. The Natural Environment shares this resource. Automatic Monitoring of Rivers is essential for continued biodiversity. School: East Glendalough School

County: Wicklow Teacher: Mary Sheridan Student(s): Donovan Webb

3305

Title: A Deep Neural Network to translate American Sign Language into English

Overview: My project is an Artificial Neural Network that translates a video of ASL (American Sign Language) into an English translation using Deep Learning.

School: St Michaels College County: Dublin Teacher: Niall Trehy Student(s): Devin O'Keefe

Title: Image Completion using Generative Adversarial Networks Overview: An investigation into using variations of Generative Adversarial Networks with Deep Neural Networks to tackle the problem of image completion.

School: St Joseph's College -Borrisoleigh County: Tipperary

Teacher: Mary Gorev Student(s): John Ryan

3307

Title: A library for Graph Analysis of **Github Commit Histories** Overview: The design, implementation and evaluation of a Haskell based library that provides functions for the performance of graph analysis of Github commit

School: Heywood Community School County: Laois

Teacher: Aodhagan O Suilleabhain Student(s): Benjamin Barrett

3308

Title: App chun luas na gaoithe ar bharr chnoic a thomhais ón bun. Overview: I wish to develop an app to be able to measure wind speeds at the top of a mountain whist at the bottom.

School: Coláiste Ailigh County: Donegal Teacher: Micheál Ó Giobúin Student(s): Seán Ó Braoin

JUNIOR GROUP

3400

Title: Smart Desk Overview: Smart Desk is an interactive learning environment enabling children with Dyscalculia learn numbers by using visual, auditory, and kinaesthetic methods accommodating all types of learners. School: St Killian's College County: Antrim

Teacher: Sean Connolly Student(s): Ellen Martin, Rachel McAuley

3401

Title: EchoCopter - A sophisticated prototype of a model helicopter incorporating a built in Ultrasonic Sensor to alert cabin crew of nearby objects in the flight path of an aircraft.

Overview: Our project is to design and build a model helicopter with a built in ultrasonic sensor which detects objects in flight preventing crashes and accidents.

School: Pobalscoil Neasain - Baldoyle

County: Dublin Teacher: Gemma Buicke

Student(s): Robert Torley, Scott Taaffe, Josh Hand

3402

Title: Alzheimer's Alert Overview: Low wattage tracking device built into a gel orthotic in a sock that is triggered by standing on it allowing others to track the individual.

School: Desmond College County: Limerick Teacher: Donal Enright Student(s): Lauren McMahon, Hazel Corbett, Orla Mullane

3403

Title: ECO kettle

Overview: We're going to combine the features of a thermal flask with a domestic kettle create a kettle that will keep water warm for 5hr. FLETTLE!!!

School: Kinsale Community School

County: Cork Teacher: Shaun Holly Student(s): Orla Madden, Katie Reynolds, Niamh Crowley

Title: To create an app that helps detect glaucoma and other eye diseases using the torchlight and camera on a phone.

Overview: Our project is to form an app that people in underdeveloped regions of the world could use to identify glaucoma and other eye diseases.

School: St Joseph of Cluny County: Dublin Teacher: Naomi Torpey Student(s): Ella Jones, Amy Kelly, Jennifer Kestell

3405

Title: Staidear a dhéanamh ar an bhféidearthacht a bhaineann le péint bhóthair theirmeachóim mar tháscaire luath-rabhaidh ar Oighear dubh ar bhóithre na hÉireann

Overview: The project aim is to investigate whether a thermochromic road paint could provide Irish motorists with an early warning for icy road conditions.





















Technology

School: Coláiste Ailigh County: Donegal Teacher: Rosa Mc Laughlin Student(s): Tiarnan O'Fearail, Oisin O'Fearail. Breandan Mac Suibhne

Title: No keys, no problem!! An innovative key finder to aid individuals locate misplaced keys

Overview: Don't you just hate when your keys go missing? With our key finder let us help you solve that problem forever with the single push of a button.

School: Hazelwood College County: Limerick **Teacher:** Martina Matthews Student(s): Conor Heenan, Stephen Long, Iain Kelly

3407

Title: OTC Med Minder Overview: Over-the-counter medicine addiction is a growing problem. We propose developing computer software that tells the cashier how much medicine you've bought recently-preventing OTC medicine abuse.

School: St Peter's College - Dunboyne County: Meath **Teacher:** Catherine Clair

Student(s): Sarah Avram. Roisín O'Connor

3408

Title: A Dual Sensor, Stereo-Feedback Headset For the Visually Impaired Overview: We developed a headset sensor system with stereo audio feedback and will test its potential to improve a blind person's ability to navigate their environment. School: Presentation College -

Athenry County: Galway Teacher: Kenneth O'Dea Student(s): Aibhe Regan,

Niah McCarthy

3409

Title: The Development of an Autonomous Car

Overview: Using a simple board computer and various arduino microcontrollers we plan to build and program a basic autonomous car. School: Scoil Mhuire gan Smál -

Blarney County: Cork Teacher: Robert Nolan Student(s): Hannah O'Shea, Estere Kviese, Katelyn Lane

3410

Title: Motor+

Overview: An inclusive modular car safety system designed to save lives on the road.

School: St Joseph's College -

Borrisoleigh **County:** Tipperary **Teacher:** Mary Gorey Student(s): Jack O'Brien, Gerard Hickey

3411

Title: The I.C.E. Helmet Overview: The I.C.E Helmet is a helmet that will sense a sudden impact using an accelerometer and pressure pads on the sides, front and

School: Colaiste Mhuire - Mullingar County: Westmeath Teacher: Eva Acton

Student(s): Sam McGrath, Ahmed Galander, Abdel Shamboul

3412

Title: Careful Crossings Overview: We are creating an app that promotes road safety by warning

you when you are approaching a road School: Celbridge Community School County: Kildare

Teacher: Mary Gormley Student(s): Éilis Pluymers, Fionn Reilly

3414

Title: The XYZ 2000 - Cheap 3D Printing

Overview: Our Project is to create a 3D printer from old CD drives and an Arduino Uno that should cost less than 75 euro.

School: Maynooth Education Campus

County: Kildare Teacher: Tom Dixon Student(s): Jack Jennings, Tom Drumgoole

Title: A Smart milking solution **Overview:** Using colour sensors and a solenoid valve to prevent the contamination of milk with either blood or mastitis when the cows are being milked.

School: North Monastery Secondary

School County: Cork Teacher: Kieran Ruby Student(s): Jack James, Kelvin Osagie, Porosh Hossain

3416

Title: An investigation into the physics of a whirligig with the aim of producing a simple blood centrifuge that can be used in developing countries

Overview: We investigate a simple blood centrifuge, inspired by a toy whirligig, that can be made for almost no cost.

School: Dominican College County: Wicklow Teacher: John O'Brien Student(s): Maria Ahmed, Alana Mays

3417

Title: "The Rear Guard" Overview: The rear guard is a traffic/ cyclist alert system for bikes and cars using a proximity alert sensor to warn drivers and cyclists of each others

School: Killorglin Community College

County: Kerry Teacher: Kevin Foley Student(s): Lily Evers, Saoirse O Carroll, Caitlin Horgan

INTERMEDIATE GROUP

3500

Title: Tackling Concussions Head On Overview: an analysis on the effectiveness of different types head protection in sports to deal with concussion.

School: Coláiste Choilm County: Cork Teacher: Paudie Scanlon Student(s): Declan Crowley, Ben Cahill, Evan McGuirk

Title: BEAP: Blind and Elderly Assistance Project - Artificial Intelligence for the blind Overview: In our project we have created a product that uses artificial intelligence to help the blind and elderly.

School: C.B.S. Secondary School

County: Kerry Teacher: Eilin Enright Student(s): Kian Trant, Séamus Knightly, Conor Crowley

Title: Farm Hand Overview: Heat retaining, chemical/ waterproof gloves with built in tools suitable for agricultural personnel, that provide protection, increase safety and communication whilst reducing accidents.

School: Desmond College County: Limerick Teacher: Donal Enright Student(s): Kayla McMahon, Fiona Kelly

Title: Adaptive 'L' and 'N' Plates for use in cars

Overview: We are investigating the development of an electronic/electromechanical L/N plate that adapts to learners requirements. This will improve visibility from cars for dual plate users.

School: Our Lady's Bower County: Westmeath Teacher: Ellen Maguire Student(s): Katie Commins, Alicia Lawless

3504

Title: An Investigation into the Properties and Practicalities of Agar-Based Bioplastics

Overview: We have made agar-based bioplastics and we will test their properties to see if they could be a suitable alternative to standard plastics.

School: Kinsale Community School County: Cork

Teacher: Shaun Holly Student(s): Lucy Plant, Oscar Humphreys, Clíodhna Doyle

3505

Title: Hamster Power Overview: We have tested if a hamster can generate electricity by running on a hamster wheel to create a new renewable energy source. School: Fort Hill College

County: Antrim Teacher: Stephen McCormick Student(s): Ben Halligan,

Jamie Martin

3506

Title: The Use Of A Mechanism On The Gates Of A Livestock Trailer To Decrease Farm Injuries

Overview: The use of a device on the gates of a livestock trailer to minimise injuries to farmers while loading

livestock School: Colaiste Chraobh Abhann County: Wicklow

Teacher: Julie Corrigan Student(s): Alexander Brady, Jack Brady

3507

Title: A sensor based ventilation system

Overview: To make a device that mechanically opens/closes vents based on the level of carbon monoxide present. School: Coláiste Choilm County: Cork

Teacher: Paudie Scanlon Student(s): Áine O'Regan,

Laura Kenneally, Ciara Dineen

Title: Guided Emergency Evacuation for the Visually Impaired

Overview: This project provides audio directions to a blind person on the optimum escape route to evacuate a building in the event of an emergency.

School: St Andrew's College County: Dublin Teacher: Hilary Rimbi Student(s): Yasmin Ryan, Aaron Speer, Oscar Doyle

3509

Title: The Creation of a Tracking Device

Overview: we will be creating a tracking device to be attached to any object, using a GPS, a battery and a raspberry pi.

School: Alexandra College County: Dublin Teacher: Patrick Cushen Student(s): Eva Duggan, Katherine McDermott. Lucy McDermott

3510

Title: Réiteoir

Overview: Réiteoir Is an app for the apple watch which is for GAA referees it combines the notebook





and watch and various other pieces of information.

School: Scoil Mhuire agus Ide County: Limerick Teacher: Rebecca Phillips Student(s): Oisín O'Sullivan, Oisín Enright, Jack Duggan

3511

Title: Baby on Board- a device that prevents hot car deaths from occurring

Overview: "Baby on Board" is a device that alerts parents that they have left their child in their car by accident to prevent hot car deaths. School: Laurel Hill Secondary School FC I

County: Limerick Teacher: Mary Frawley Student(s): Claire Cooney, Ellen Murphy

3512

Title: SON Multisystem Console Overview: SON is a multi-system console that runs retro games as well as a Linux Distribution.

School: Clonakilty Community College

County: Cork Teacher: Patrick O Keeffe Student(s): Oliwier Krawczyk, Nikola Tarczalowicz, Sean Cahalane

3513

Title: Don't Bin the Banana Peel-Biomass it!

Overview: This project designs a banana peel briquette. It will compare the effectiveness of banana peels, peel briquettes and coal in order to evaluate environmentally friendly fuels.

School: Desmond College County: Limerick Teacher: Aoife Culhane Student(s): Jack Corkery, Bryan Mortell, David O'Brien

Title: Modelling Engineering Applications with Technic Mechanisms and Mindstorm Robotics

Overview: Use of Lego Technic Mechanisms and Mindstorm Robotics to model Engineering projects and develop problem solving skills that are key to STEM subjects.

County: Wicklow Teacher: Joe Dolan Student(s): Seán Nolan, Shay Barrett, Nathan Rogers

School: Scoil Chonglais

Title: Allergen identification: designing a new app to alert the visually impaired the risks of allergens in food products

Overview: Creating an app for visually impaired that will display allergen information contained in food packages. The app will use text-to-speech to inform users about School: Coláiste Choilm County: Cork Teacher: Lillian Heylin

Student(s): Tara Weafer, Kate Corcoran, Abaigh Murphy

Title: Clár idirghníomhach chun feabhas a chur ar chumarsáid Overview: Chruthaíomar clár idirghníomhach chun cabhrú le scileanna cumarsáide dalta inár scoil le riachtanis speisialta.

School: Gaelcholáiste Mhuire

County: Cork

Teacher: Aoife Ní Mheachair Student(s): Caitlin Ní Coitir, Kaithlyn Ní Chofaigh, Gwen Cúc

3518

Title: Sprain Away Gloves Overview: New and improved Gaelic football gloves that offer light support to the fingers. It can help with both the healing and prevention of sprains. School: Bush Post Primary School County: Louth Teacher: Gary Galvin

Student(s): Aaron Carolan,

3519

Daragh Callan

Title: Life Saving Sensor Overview: Our project is based around the problem of phone use while driving, and the number of road incidents caused by this. We want to stop this.

School: Comprehensive School -Tarbert County: Kerry

Teacher: Gerard Nash Student(s): Clara Hanrahan, Niamh O Carroll, Kayla Hannon

3520

Title: Automatic Emergency Services Alerter

Overview: We are designing a system to automatically notify emergency services in the event of an accident **School:** Thomond Community College

County: Limerick Teacher: Michael Treacy

Student(s): Beth O'Donnell, Rachel Murphy, Keri Long

Title: Charcoal pencil or waterproof marker with a grip?-How to make a firefighter's day easier

Overview: The purpose of our project is to design a waterproof marker with a built in grip and an eraser for firefighter's Breathing Apparatus

School: Millstreet Community School County: Cork

Teacher: Jennifer O'Donoghue Student(s): Shannon O'Sullivan,

Katie Healy

3522

Title: U'V Been Cleaned Overview: We will test for bacteria on bottles and test the effectiveness of UV disinfection using a device that we build using UV LED's.

School: Coláiste Choilm County: Cork

Teacher: Paudie Scanlon Student(s): Niall Kiely,

Fergal O'Leary, Cathal Mac Dermott

Title: A wearable device to provide

elderly care

Overview: Using wearable, cloud and IOT software to address the need for elderly care affordably by monitoring movement patterns using machine learning to detect a fall.

School: Coláiste Bhaile Chláir County: Galway

Teacher: Eleanor Nolan Student(s): Lisa Kelly, Eve Regan

Title: A wireless connection for machinery equipment lights Overview: Create a plug that sends a wireless signal to machinery trailer lights without any cables. Create a unique password to connect to workers equipment only.

School: Presentation Secondary School - Thurles County: Tipperary Teacher: John Flynn Student(s): Sarah Johnson, Sarah-Kate Coffey, Eva Noonan

3525

Title: Roofing Safety Bar Overview: Safety Bar, an investigation to design and create safety equipment to reduce Building Site Injuries. School: St Patrick's Classical School County: Meath Teacher: Cora Marie Kelliher Student(s): Darragh Canny,

Sean Keogh

Title: If The Shoe Fits... Overview: Our projects' aim is to design a specialised shoe for people with Epidermolysis Bullosa (E.B.) and similar condition.

School: St Aloysius College -Carrigtwohill County: Cork Teacher: Angelina Carew

Student(s): Robyn O'Sullivan, Sarah O'Callaghan

3527

Title: No Mower Accidents Overview: A sensor that will shut off blades of a ride-on lawn mower if a human or animal fell within a 1m radius thus reducing accidents. School: St Joseph's College **County:** Tipperary

Teacher: Mary Gorey Student(s): Aisling Dwyer, Hazel Reynolds, Kiara Hearty

SENIOR GROUP

3600

Title: Dementia Aid

Overview: Dementia Aid helps people with Dementia to remember key events in their daily routine using NFCtags and a PI providing guidance and instructions with video School: St Killian's College County: Antrim Teacher: Sean Connolly Student(s): Alex McCormick,

3601

Claire McGuckian

Title: Driver Fatigue - We need to wake up

Overview: We designed a prototype to reduce and make the driver aware of their fatigue which in turn may reduce fatalities on Irish roads School: Colaiste Phobáil Rós Cré County: Tipperary Teacher: Sarah Kirwan Student(s): Alan Mullally,

3602

Title: PiView Renewable Energy Overview: A project which began as a weather station on Slieve Gallion, together we have now developed various forms of renewable energy School: Cookstown High School

County: Tyrone Teacher: Robert Johnston Student(s): Jack Scott, Simon Paine, TJ Lindsay

Brian Parlon, Peter Maher

Title: An Economical Sensor That Leads To The Conservation of Water, Using Sound Frequency.

Overview: A MEMS microphone will detect water flow externally on a taps surface. A Fast Fourier Transform algorithm will correlate flow rate versus frequency for monitoring. School: North Monastery Secondary School

County: Cork Teacher: Frank Murphy Student(s): Harold Ibarlin, Elvis Nzekwe, Filip Gajda

3604

Title: Saved By The Beep Overview: We are creating a carbon dioxide sensor that is connected to an application that detects carbon dioxide levels when it reaches an unsafe level.

School: Our Lady's Bower County: Westmeath Teacher: Julie-Anne Greaney Student(s): Erifeoluwa Jamgbadi, Lamide Olaoye, Daniella Obikoya

3605

Title: GST Power Punch Overview: Pressure sensors placed over boxer's knuckles in between their strapping with a transmitter sending data to a receiver to help





















Technology

decide between direct, partial and non-punches

School: Salesian Secondary College, Pallaskenry

County: Limerick Teacher: John O'Flynn Student(s): William Cahill, Shane Doranm, Ethan Flynn

Title: Let's do more with our CH4; The collection of methane gas from household food waste bins.

Overview: Our project is to redesign household food waste bins so they can collect the methane gas coming from the decomposing food waste.

School: Colaiste Mhuire - Askeaton

County: Limerick Teacher: Karol Davern Student(s): Paul Meehan, Conor Daly

Title: Cot Death Fliminator **Overview:** The majority of cot deaths have been attributed to babies overheating, our device controls the baby's body temperature and provides cool air for breathing

School: St Killian's College County: Antrim Teacher: Sean Connolly Student(s): Niall Black, Orla McNaughton, Ciaran Cairns

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JUNIOR INDIVIDUAL

4100

Title: Do Irish mussels contain microplastics?

Overview: I am looking to see if mussels (Mytilus edulis) found in Ireland contain microplastics. I will compare those found in the wild with farmed mussels.

School: Mary Immaculate Secondary

School - Lisdoonvarna County: Clare Teacher: John Sims Student(s): Cindy O'Leary

4101

Title: A comparative analysis of the antioxidant capacity of fruit and vegetable smoothie drinks: Is there evidence of a synergistic effect? Overview: I aim to measure the relative antioxidant capacity of multiple smoothie mixtures and test for synergistic additive and antagonistic effects using the Briggs-Rauscher reaction.

School: Kinsale Community School

County: Cork Teacher: Shaun Holly Student(s): Shane Collins

4102

Title: Factors affecting efficiency in harvesting of forestry

Overview: I am looking to see how the amount of a tree left behind after harvesting varies and possible reasons for this

School: Mary Immaculate Secondary

School - Lisdoonvarna County: Clare Teacher: John Sims Student(s): Cealan O'Neill

4103

Title: Can full fat milk help control diabetes?

Overview: I am testing full fat milk vs low fat milk to see if it will help to balance my blood sugar levels in the morning.

School: Presentation College

County: Cork Teacher: Julie Hanlon Student(s): Fionn Coleman

4104

Title: The effect of weather, vegetation and topography on the movement of cattle in a winterage in the Burren

Overview: I want to see if the movement of cattle in a winterage in the Burren is affected by weather conditions, topography and vegetation.

School: Mary Immaculate Secondary School - Lisdoonvarna

County: Clare Teacher: John Sims Student(s): Ian Woods

4105

Title: Imscrúdú a dhéanamh ar an

gcaoi a bhfuil amaláis sheileach ceangailte le strus agus scrúdú simplí amaláis sheileach chun leibhéal strus mhic léinn a thomais a fhorbairt.

Overview: My aim for this project is to develop a simple salivary amylase test that can be used to measure stress levels of students.

School: Coláiste Ailigh County: Donegal

Teacher: Rosa Mc Laughlin Student(s): Chloe Ní Chiaráin

Title: Ridding hair/scalp of pediculus humanus capitis (head louse) Overview: In this project i hope to find the best substance to kill head louse that is affordable and easily obtained

School: Midleton College County: Cork Teacher: Paul Joyce Student(s): Ben Richardson

4107

Title: An investigation into the distribution of microplastics in the marine and aquatic environments in my local area

Overview: I am going to evaluate the amount and type of microplastics currently washed up on the local beaches and in the estuary in my area. **School:** Kinsale Community School

County: Cork Teacher: Shaun Holly Student(s): Sean Collins

INTERMEDIATE INDIVIDUAL

4200

Title: An Investigation into using CRISPR-Cas9 to genomically edit Paramecium caudatum to purify Vibrio cholerae-infected water in 3rd world countries.

Overview: Research into using Genetic Engineering and CRISPR-Cas9 to cut a target Gene in Paramecium Caudatum so it feeds on Vibrio bacteria that causes Cholera.

School: Killorglin Community College

County: Kerry

Teacher: Marieke O'Connor Student(s): Timothy McGrath

Title: An investigation of calcium ion levels in the anatomy of adult fracture in-patients.

Overview: In this Study I aim to investigate if calcium ion levels in the human anatomy has any impact on fracture rates.

School: St. Clare's Comprehensive School

County: Leitrim Teacher: Edel McPhelim Student(s): Rachel Mc Partlin

4202

Title: An Investigation into the effect the Lanesboro power station on water quality in the river Shannon

Overview: An investigation into whether Lanesboro Power Station has a negative impact on the water quality in the River Shannon

School: C.B.S. Roscommon County: Roscommon Teacher: Louise Gallagher Student(s): Adam Hegarty

Title: The beneficial effect of blue light reduction on sleep patterns and general well-being

Overview: The aim of my project is to find ways to investigate and alleviate damage caused by exposure to blue

School: Phobailscoil losolde County: Dublin Teacher: Lynda Jordan Student(s): Eoin O'Loughlin

Title: The effects of food ingestion on vocal performance.

Overview: In my project I will have my test subjects ingest oil from different types of seaweed and have them attempt various vocal exercises.

School: St. Joseph's Secondary School

County: Clare

Teacher: Anthony Guilfoyle Student(s): Laura Shannon

4205

Title: A comparison of the lung capacity of female teenagers who participate in regular choir or sport versus those who do neither.

Overview: A statistical analysis of wether regular singing or playing sport among female teenagers effect lung spirometry compared to their sedentary counterparts?

School: Loreto College - St Stephens Green

County: Dublin Teacher: Louise Kerr Student(s): Orla Buggy

4206

Title: Addressing the global goals for sustainable development: an investigation into the use of CRISPR-Cas9 for targeted genome editing in Solanum tuberosum

Overview: This project demonstrates precise genome editing with CRISPR-Cas9 using potato as a model system in order to transfer this technology to other food crops.

School: Colaiste Treasa - Kanturk County: Cork

Teacher: Derry O'Donovan Student(s): Maeve O'Connor

Title: Investigate if forestation in rural areas affects adjacent farm land soil quality and viability

Overview: comparative in depth investigation of soil quality comparing land adjacent to forested land vs similar land non adjacent to forested land.

School: Scoil Mhuire Strokestown

County: Roscommon

Teacher: Modwena Geoghegan Student(s): Niamh Doorley

4208

Title: Expansion rates of Japanese knotweed (Fallopia japaonica) in North Clare

Overview: I want to collect data on the expansion of Japanese knotweed in North Clare and the environment it likes to grow in.

School: Mary Immaculate Secondary

School - Lisdoonvarna County: Clare Teacher: John Sims Student(s): Amy Woods

4209

Title: Pain management in patients suffering from Chiari Malformation Overview: This project will study the effects of Chiari Malformation on patients and aims to discover which method of pain management is the best.

School: Scoil Mhuire - Kanturk

County: Cork Teacher: Aidan Noone

Student(s): Daragh Healy-Fitzgerald

Title: An investigation of microplastics in seawater and their effect on marine organisms

Overview: We intend to investigate the effects microplastics in seawater has on marine organisms using samples from different beaches and with different concentrations.

School: Loreto Secondary School -Balbriggan

County: Dublin Teacher: Chloe White Student(s): Ailís Odell

4211

Title: Testing for the presence of zinc in hair

Overview: To compare zinc levels in hair from people who live in a mining town vs. those who don't.

School: Loreto Secondary School -Navan

County: Meath

Teacher: Clodagh Finnegan Student(s): Una Clarke

4212

Title: Are breeding birds bioindicators of climate change?

Overview: This project aims to establish if there is a link between changing patterns of breeding bird populations in Ireland and Britain and climate change.

School: Loreto Abbey Secondary School

County: Dublin Teacher: Linda Nolan Student(s): Isobel Kearns

Title: Habitat Study: An investigation















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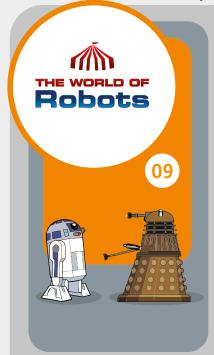






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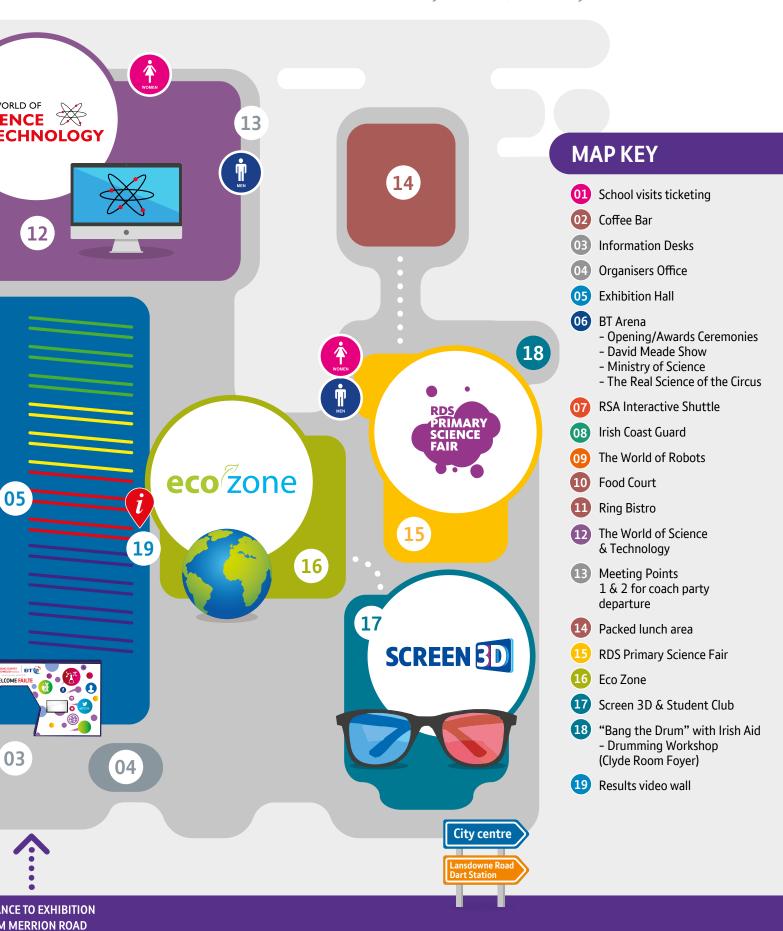




ENTRA FROI









Biological & Ecological Sciences

into the correlation between increased red grouse numbers and high ling heather average heights in Leitrim boglands

Overview: The aim of this project is to determine the correlation between increased red grouse populations and high average heather heights in Leitrim boglands.

School: St. Clare's Comprehensive School

County: Leitrim Teacher: Edel McPhelim Student(s): Ella Sloane

Title: Cé mhéad baictéir a mbíonn ar barr buidéal uisce a bhí roinnte idir foireann spóirt go léir? An ligeann sé do ghalair scaipeadh?

Overview: Ag déanamh fiosrúchán ar an méid baictéir a mbíonn ar barr buidéal uisce a roinneann foireann spóirt go léir agus an bhfuil sé mí-

School: Gaelcholáiste Reachrann

County: Dublin

Teacher: Cormac Mac Ualgairg Student(s): Diarmuid Ó'Duigneáin

4215

Title: The development of an antimicrobial smartphone screen protector

Overview: I have developed an anti-microbial smart device screen protector, intended to combat harmful microbes present on your smart devices.

School: Mercy Secondary School

County: Kerry Teacher: Jemma Lynch Student(s): Robin Porter

4216

Title: Sourdough bread: analysis of gluten content and degradation, with implications for coeliac disease Overview: This project will compare the gluten content of breads made using sourdough and quick dough methods, and assess the degradation

of gluten in these breads. School: Sandford Park School Ltd

County: Dublin Teacher: Edel Martin Student(s): Oscar Despard

4217

Title: To investigate the accuracy of a Near Infra-Red Spectroscopy mobile machine on testing silage and compare it to traditional laboratory analysis

Overview: My project aims to test the accuracy/ sustainability of Near Infra-Red Spectroscopy (NIR) mobile machines and compare it to laboratory analysis results when testing silage.

School: Mount St Michael County: Cork

Teacher: Lorraine McCarthy Student(s): Joan O'Donovan

Title: Automation of a novel approach to increase biofuel production of Nannochloropsis oculata

Overview: Using copper ions to inhibit carnitine biosynthesis to increase biofuel production of nannochloropsis oculata and to automate this process using photoresistors and an Arduino microcontroller.

School: Coláiste Choilm County: Cork Teacher: Karina Lyne Student(s): Ciarán Cotter

Title: An laghdaíonn rataí asláithreachais i scoil Éireannach le caighdeán níos airde glaineacht

Overview: Tá mé chun a scrudu a dhéanamh an laghdóidh rátaí asláithreachais má chuirtear áiseanna agus oideachais níos fearr glaineacht láimhe ar fail i scoil.

School: Coláiste Eoin County: Dublin

Teacher: Cionnaith Ó Dubhthaigh Student(s): Conn Ó Gormáin

Title: Onions - friend or foe? Overview: The aim of my project is to investigate the hypothesis that onions have the ability to absorb bacteria after being exposed to various environments.

School: St Aloysius College -Carrigtwohill

County: Cork

Teacher: Angelina Carew Student(s): Caoimhe Casey

4221

Title: The effect of acidic seawater on Coralline algae and different seashells Overview: I want to investigate what effect seawater at different pH levels has on a number of different types of seashell and on Coralline algae.

School: Mary Immaculate Secondary

School - Lisdoonvarna County: Clare Teacher: John Sims Student(s): Katie Thomas

Title: Investigation into the antimicrobial effects of both aerial and root parts of selected plants against Staphylococcus aureus Overview: I have tested plants (root/ aerial) for antimicrobial activity against Staphylococcus aureus. The WHO has flagged the lack of new antibiotics. My results show promise. School: Coláiste Choilm

County: Cork Teacher: Karina Lyne Student(s): Simon Meehan

4223

Title: A study of non-marine mollusc shells found at Bartragh, Enniscrone, Overview: I will record the location, variety and numbers of non-marine mollusc shells found at Bartragh, Enniscrone. Results will be compared to historical research.

School: Jesus & Mary Secondary

School County: Sligo

Teacher: Margaret Kenny Student(s): Caoimhe Egan

SENIOR INDIVIDUAL

4300

Title: Isolation of Phenylacetonitrile and gas chromatography analysis of the Pitaya plant

Overview: Identify and quantify phenylacetonitrile in home grown saplings of the Pitaya plant in preparation for testing its use as a companion crop in Malawi School: Phobailscoil losolde

County: Dublin Teacher: Lynda Jordan Student(s): Molly Measey

Title: Using essential oils for the control of bacteria

Overview: I am aiming to investigate the antimicrobial effects of plant essential oils in a natural soap. School: Loreto Secondary School

County: Wexford Teacher: Pauline Finnerty Student(s): Amy Richards

4302

Title: Heart valve design and prototype development Overview: Development of heart valve through iterative designs, development and use of test methods to learn about and improve these

School: Yeats College County: Galway Teacher: Marian Lowry Student(s): Thomas Hayes

4303

Title: Short-term fasting influences the chemosensitivity of oesophageal

Overview: I've shown that short term fasting affects the chemosensitivity of oesophageal cancer cells. The cellular mechanism, autophagy, is investigated as a potential cause or contributor.

School: Colaiste Treasa - Kanturk

County: Cork

Teacher: Derry O'Donovan Student(s): Conleth Aspel

Title: Investigating the combined effects of a neoteric diet with novel drugs as antiproliferative cancer

Overview: Investigating the effects of combining both a new specific diet along with novel drugs derived from natural extracts on pancreatic and

lung cancer cell lines. School: Colaiste Choilm County: Offaly Teacher: Ann Molloy Student(s): Aivan Jose

Title: The effect of wild bird cover (GLAS) on seed eating bird populations

Overview: This project will profile the numbers and species of birds feeding on wild bird cover and compare them with control areas of grassland and

School: Heywood Community School

County: Laois Teacher: Peter Malone Student(s): Caoimhe Murphy

Title: Investigating changing weather patterns as a possible cause of population decline in Swift breeding pairs in Ireland.

Overview: Observation of endangered Swift bird species to identify what is causing population decline in Ireland, and what might be done to in aid of conservation.

School: Sancta Maria College

County: Mayo

Teacher: John Paul Tiernan Student(s): Seoirse Swanton

Title: An investigation into the prevention and control of MRSA Overview: This project will investigate methods of controlling MRSA in a

hospital environment by testing the use of silver and ultraviolet light and their effects on bacterium. School: Cistercian College

County: Tipperary Teacher: Lesley Cox Student(s): Jack Egan

Title: Preventing obesity, diabetes and heart diseases using diet-induced thermogenesis

Overview: Investigating potential natural treatments for obesity and related diseases such as Diabetes and Heart diseases using anthocyanins, catechins and capsaicins to increase Diet Induced Thermogenesis.

School: Our Lady's Bower County: Westmeath Teacher: Ellen Maguire Student(s): Tierna McGuire

4309

Title: Is the occurrence and distribution of Ulva lactuca and Enteromorpha intestinalis affected by water quality?

Overview: Investigate the antimicrobial effects of a variety of plants and compare the effects with commonly prescribed antibiotics.

School: Coleraine Academical Institution

County: Londonderry





Teacher: Pamela Frizelle Student(s): Jonathan Green

4310

Title: An Investigation into the perception and processing of colour print versus black and white print during exams

Overview: An investigation to see whether students can perform better in exams printed in colour rather than the typical black and white print. School: Phobailscoil losolde

County: Dublin Teacher: Lynda Jordan Student(s): Medivic Bakanababo

4311

Title: Is the occurrence and distribution of Ulva lactuca and Enteromorpha intestinalis affected by water quality?

Overview: I want to see if the levels of nitrates and phosphates in seawater are related to the occurrence of Ulva lactuca and Enteromorpha intestinalis School: Mary Immaculate Secondary School - Lisdoonvarna

County: Clare Teacher: John Sims Student(s): Jessica Kelly

JUNIOR GROUP

4400

Title: A study of bacteria found on pedestrian crossings in Dublin Overview: A study of bacteria found on pedestrian crossings in Dublin. We swabbed, incubated and examined the bacteria we found.

School: Castleknock Community College

County: Dublin Teacher: Grainne Mulry Student(s): Alison Egan, Caoimhe Harrington, Áine Morgan

4401

Title: Investigating the forces transmitted when heading a football Overview: Our project investigates the forces transmitted when a football hits the human skull at speed and the vibrations of the cerebral hemispheres.

School: Sutton Park School County: Dublin

Teacher: Catherine Tattersall Student(s): Sam Hendrick Elle MacHale

4402

Title: A cent wiser, a pound heavier! If we are what we eat, do we really know what we are eating?

Overview: To investigate if our food choices are affecting our health (are own-brand foods on par with the leading brand food regarding to nutritional content).

School: Our Ladys Secondary School

County: Tipperary Teacher: Marie Rvan Student(s): Caelainn Luby, Wiktoria Leszuk

4403

Title: A study using statistical methods on the biological effect of microsleep on adult awareness and perception of situations and facts Overview: Our experiment will investigate which age groups and work shift patterns are more likely to

be susceptible to microsleep. School: Kinsale Community School

County: Cork Teacher: Shaun Holly Student(s): Caoimhe Lynch, Holly Finucane

4404

Title: Using science to reduce collisions between deer and vehicles Overview: Using science we aim to firstly understand where deer and vehiclular traffic might meet, then mitigate the risk of such life threatening and costsly collisions. School: Coláiste Bhréanainn

County: Kerry Teacher: Marian O'Gorman Student(s): Darragh Fleming, Colm Looney, Ethan O' Neill

4405

Title: Do some people have a genetic excuse for not liking vegetables? Overview: The investigation of why some adults don't like Brassica vegetables and how it relates to our genetics.

School: St Joseph of Cluny County: Dublin Teacher: Naomi Torpey Student(s): Cara McCrystal, Susie Holahan, Daisy Gavigan

Title: An éifeacht éiceolaíochta ata ag daoine ar an Earagail - The ecological impact people have on Errigal Mountain

Overview: An investigation of the ecological impact of human activity on Errigal Mountain

School: Pobalscoil Ghaoth Dobhair

County: Donegal Teacher: Susan Ní Loinsigh Student(s): Katelyn Níc Phaidín, Alanna Ní Chearnaigh, Emma Níc Phaidín

Title: Teaching an Old Dog New Tricks! Overview: We have researched the topic neuroplasticity and we believe that the brain is capable of rewiring. Until recently the brain was thought to be rigid.

School: Avondale Community College County: Wicklow Teacher: Deirdre Doyle

Student(s): Eric Murname, Alanna Delamere

4408

Title: Microorganisms' reaction to light and sound

Overview: In this experiment we hope to look at how the growth of microorganisms respond to changes in light intensity and changes in frequency of sound.

School: Coláiste An Spioraid Naoimh

County: Cork

Teacher: Aileen O'Mahony Student(s): Ben Maher, Ross O'Donovan, Timmy O'Riordan

Title: The formula For "Super Honey" Overview: We aim to discover what the ideal set of plants to make honey are and to create a plant formula for "Super Honey".
School: Scoil Mhuire Strokestown

County: Roscommon

Teacher: Modwena Geoghegan Student(s): Cormac Hoare, David McDonnell

4410

Title: The side effects of vaping and does it harm your body long term Overview: We are researching the side effects of vaping and we want to find out if vaping harms your body through long term use.

School: Coláiste lósaef County: Limerick Teacher: Brian Clarke

Student(s): Shane Hogan, Jack O'Shea

Title: A comparative analysis of the antioxidant profile of (a) Irish versus imported fruit (b) fresh versus frozen versus dried fruit

Overview: We will investigate if the antioxidant levels in certain fruit change depending on where the fruit is grown and how the fruit is stored (fresh/frozen/dried).

School: Carrigtwohill Community

College County: Cork

Teacher: Diarmuid Crowley Student(s): Emma Grimes,

Alice Bogue

4412

Title: Could Cassini have brought bacteria on to Titan

Overview: The problem we wish to solve is to find out if Cassini (including Huygens) landed on titan, could it have brought bacteria from Earth. School: Kinsale Community School

County: Cork Teacher: Shaun Holly

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

4413

Title: Investigating the effect of silver nanoparticles on probiotics Overview: Our project aims to investigate the effect of silver nanoparticles on different probiotics to discover if there is a negative impact.

School: Loreto Secondary School -

Balbriggan

County: Dublin Teacher: Niamh Mc Nally Student(s): Jennifer Bura,

Mizna Shahid

4414

Title: An investigation into the high prevalance of millipedes and beetles in Dún an Rí Forest Park in Kingscourt Co. Cavan, and the reasons for their high prevalence in various habitats in this location.

Overview: Investigating local insects in our local Dun a Ri Park, Co. Cavan, and why they are so common there.

School: Colaiste Dun an Ri County: Cavan

Teacher: Michelle Hough Student(s): Ilona Mc Carthy, Caoimhe Byrne, Eabha Garvey

4415

Title: The effect of Phytophthora ramorum in Japanese larch on the Biodiversity of Gougane Barra Forest

Overview: Our project aims to investigate the effect of the phytophthora ramorum fungus in the Japanese larch on the biodiversity of Gougane Barra forest park, Cork. School: St Mary's Secondary School -

Macroom County: Cork

Teacher: Jennifer Butler Student(s): Laoise O'Sullivan, Caoimhe Kelleher, Ellie Cooney Lynch

4416

Title: Sunflower pith as a packaging alternative

Overview: We have investigated the properties of sunflower pith as an affordable and biodegrable packaging material, comparing it to currently used products.

School: Douglas Community School

County: Cork

Teacher: Cian O'Mahony Student(s): Jamie O'Callaghan, Benjamin Velon, Eoin Cottrell

4417

Title: The environmental threat posed by the invasive South American rodent, Coypu, in Cork rivers Overview: To investigate the environmental damage and potential for spread of non-native rodent coypu that have been seen in Cork rivers. School: Ballincollig Community School

County: Cork Teacher: David Nolan

Student(s): Emer Conway, Nicola Batt

4418

Title: An investigation into the sugar of smoothie drinks

Overview: We are investigating the sugar content of smoothie drinks and comparing it to other soft drinks.

School: Coláiste Chiaráin County: Limerick

Teacher: Edel Farrell

Student(s): Holly Lowe, Aoife Leonard

















Biological & Ecological Sciences

Title: THINK BEFORE YOU DRINK: MICROPLASTICS

Overview: Checking water for the presence of microbeads or microplastics.

School: Coláiste lognáid S.J. County: Galway

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

Title: An Investigation into the incidences of parasitic infection in shellfish

Overview: Our project investigates the occurrence of parasitic infections in shellfish such as; mussels, cockles and ovsters and how these might cause allergies in humans.

School: Sutton Park School

County: Dublin

Teacher: Catherine Tattersall Student(s): Eliana Coughlan,

Seán Barry

Title: A study of the current status of the European hedgehog (Erinaceus europaeus) in the North Cork area and factors affecting its decline.

Overview: We wish to investigate the presence and distribution of European hedgehogs (Erinaceus Europaeus) in North Cork and to investigate the reasons behind their apparent decline.

School: St Mary's Secondary School - Mallow

County: Cork **Teacher:** Rory Coote Student(s): Éabha Sampson, Clíona O'Connor

4422

Title: V-notching of lobster in Galway Bay - success or not?

Overview: We want to see if the v-notching program in Galway Bay is a success or not.

School: Mary Immaculate Secondary

School - Lisdoonvarna County: Clare Teacher: John Sims

Student(s): Ella Mullins,

Maebh Meehan

4423

Title: Potaí Plandaí Féin-Toirchithe Overview: We have been working on creating a biodegradable seedling pot that will self fertilize the soil in order to improve soil quality.

School: Pobalscoil Ghaoth Dobhair

County: Donegal

Teacher: Siobhan Ni Shearcaigh Student(s): Molly Ní Ghallachóir, Katie Ní Bhaoill, Saoirse Chu

4424

Title: The impact of zero grazing on soil nutrient levels.

Overview: Zero grazing is a system where grass is mechanically mown and brought to cattle. This project

analyses the impact of zero-grazing on soil nutrient levels.

School: De La Salle College -

Waterford County: Waterford

Teacher: Mary McDonagh

Student(s): Cian Troy, Daniel Farrell

4425

Title: Picture This: A study testing visual memory, comparing teens, adults and their environments.

Overview: We will be testing visual memories. We will be comparing the results of adults and teens and seeing if different environments will affect their scores.

School: Loreto College - Foxrock

County: Dublin Teacher: Kellie Fennell Student(s): Margot Moore, Isabelle Kiely, Leah Clancy

Title: Production of bioethanol from our school canteen food waste Overview: Fermentation and distillation of school canteen waste. Can bioethanol yield be maximised using different foods and pretreatment (enzymes)? Potential of

waste food as energy source. School: St Catherine's College County: Armagh

Teacher: Ciaran Connolly Student(s): Catherine Connolly, Alicia McGeown, Elle McVeigh

Title: Spit-tacular Spices!

Overview: Does the pungency of food

affect saliva production?

School: Mount Anville Secondary School

County: Dublin

Teacher: Bernard Crampton Student(s): Lucy Mulcahy,

Katie Shaw, Lucy O'Connell

Title: The effectivness of ancient remedies in preventing the growth of

Overview: In a world where the effectiveness of antibiotics is decreasing as bacteria becomes increasingly resistant, might ancient antibacterial remedies help to solve an impending crisis.

School: Holy Child Secondary School

County: Dublin

Teacher: Regina Greehy Student(s): Mia Conlon,

Emma Kennedy

INTERMEDIATE GROUP

4500

Title: Ireland's burning problem: the ecological impact of gorse fires Overview: A study of the immediate

and long-term impact of gorse fires on the biodiversity of flora and fauna in Irish peatlands.

School: Moate Community School

County: Westmeath Teacher: Mairead Cusack

Student(s): Emma Kelly, Brian Conlon

4501

Title: To investigate if Snail Secretion can prevent the spread of oral biofilm Overview: We aim to test snail mucin against plaque (an oral biofilm). By doing this we hope to prove that snail mucus can prevent biofilm formation.

School: Coláiste Choilm

County: Cork

Teacher: Lillian Heylin

Student(s): Elizabeth O'Connor, Sophie Sleeman, Sarah Collins

4502

Title: Identifying bats from the roost using an inexpensive Raspberry Pi bat detector and PCR

Overview: Our Project aims to aid conservation of bats in Ireland, by Identifying bats from the roost using a raspberry Pi bat detector and Genetics.

School: The Kings Hospital

County: Dublin

Teacher: Ciaran O'Connor Student(s): Dylan Bagnall.

Richard Beattie

4503

Title: Investigating the effect of different coloured LEDs on the growth

Overview: This project investigates the effect of different coloured LEDs (daylight, blue, red, green, violet and orange) on the growth of plants.

School: St Mary's College County: Londonderry Teacher: Ann Blanking Student(s): Hollie Harkin, Caitlin Mc Fadden

4504

Title: Does a mart affect the surrounding water quality Overview: We are investigating if water quality is affected by its proximity to a cattle mart School: C.B.S. Roscommon

County: Roscommon Teacher: Louise Gallagher Student(s): Peter Kirwan, Kaylem Holian, James Farrell

Title: The effects of age, sex and body mass index on human reaction time Overview: Our project aims to

investigate whether or not age, sex and body mass index affects human reaction time.

School: Coláiste Choilm

County: Cork

Teacher: Paudie Scanlon

Student(s): Eva Finn, Niamh Mulcahy

Title: An investigation of the effect of different materials on bee health Overview: Using sensors that monitor beehive conditions to compare the

materials western red cedar wood and polystyrene used to build beehives. School: St. Mary's Secondary School

County: Tipperary Teacher: Jane Cross Student(s): Sarah Hennessy, Megan Freeney, Eah O' Gorman

4507

Title: The effects of Japanese knotweed on agriculture

Overview: We are investigating The Effects of Japanese Knotweed on agriculture and how it effects farmers land, property and financial costs. School: Roscommon Community

College

County: Roscommon Teacher: Joanne Broggy Shea Student(s): Luca Stratford, Ben Moran, John Mannion

4508

Title: Feeding 9.6 billion people by 2050. The effects of Pseudomonas Fluorescens L321 on enhancing

barley crop yield. Overview: To investigate if the enhancement of a barley microbiome with Pseudomonas flourescens L321 promotes increased crop yield when grown under moderately stressful

School: Colaiste Treasa - Kanturk

County: Cork

Teacher: Derry O'Donovan Student(s): Darragh Twomey, Neil O'Leary, Andrew Heffernan

Title: How Different Pesticides and Their Concentrations Affect Cress and its Growth

Overview: In this project, we aim to investigate how varying concentrations of a selection of pesticides affects cress and its growth. School: Scoil Mhuire Community

School County: Kildare Teacher: Helena Lynn Student(s): Jack Rowland. Luke Hodgkiss, Emily Perris

Title: Investigation into the growth of algae in blue flag swimming areas Overview: We will research the effect of algae on blue flag swimming areas. School: Portumna Community School

County: Galway Teacher: Niamh Barry Student(s): Eoin Gallagher, Aonraoi Mullen, Eoin Forde

4511

Title: Wherever I lay my Bat, that's my home

Overview: We are investigating the uptake by the bats of the bat boxes recently erected by farmers as part of the GLAS scheme.

School: C.B.S. Roscommon County: Roscommon Teacher: Breege Grennan





Student(s): Fergus Earley, Andrew Carroll, Gearoid Grady

4512

Title: Bat mortality rates at wind turbines

Overview: We are gathering information about the mortality rate of bats, an endangered species, near wind turbines and looking at the specific species of bats affected. School: St Mary's Secondary School

- Macroom County: Cork

Teacher: Jennifer Butler Student(s): Miriam Murnane, Eileen Condon, Kate Murray

Title: Investigating changes in cell morphology as a consequence of caesarian section [C-section] delivery Overview: Looking at the influence of gut microbiota on neuronal development in the brain and comparing the neuronal structure between natural born and caesarian

School: Colaiste Treasa - Kanturk County: Cork

Teacher: Derry O'Donovan Student(s): Ciara Hartnett, Máire Moylan

4514

Title: An algae survey of the river bonnet as an indicator of pollution Overview: A survey using algae growth in the river bonnet to indicate the levels of river pollution and the effect on the fish stocks in Leitrim. School: St. Clare's Comprehensive

School County: Leitrim Teacher: Edel McPhelim Student(s): Éabha Maxwell Rankin, Aoife McLoughlin

4515

Title: Household anerobic digestion Overview: we are attempting to research the possibilities of getting rid of house hold waste in an environmentally friendly way. School: St Kieran's College County: Kilkenny Teacher: Richard Windle Student(s): James McOwan, Patrick O'Shea, Luke Morrissey

4516

Title: Is there a positive correlation between hand-eye coordination and peripheral vision in sport. Overview: Is there a positive correlation between hand-eye

coordination and good peripheral vision in sports.

School: St Vincent's Secondary School County: Louth

Teacher: John White Student(s): Carissa Lynch, Roisin O'Hanrahan, Martyna Czarnocka

Title: Undergrazing: The effects Overview: We are investigating the effect under grazing has on both botanical and soil composition School: C.B.S. Roscommon County: Roscommon Teacher: Louise Gallagher Student(s): James Fitzpatrick,

4518

Jack Keegan

Title: Assessment of flukicide efficacy against Faciola hepatica in sheep and cattle

Overview: We will compare fluke (fasciola hepatica) from cattle and sheep samples for the presence of genetic evidence of flukicide resistance.

School: Scoil Mhuire Strokestown County: Roscommon

Teacher: Modwena Geoghegan Student(s): Isobel Holmes. Judith Scott, Catherine Mannion

Title: Fridge Free Freshness Overview: Our project aims to create a food storage container that will slow the process of ripening in fruit and vegetables.

School: Moate Community School County: Westmeath

Teacher: Irene O'Sullivan Student(s): Thérèse Hamm, Jack O'Donovan

4520

Title: Dia-beating Hypos Overview: We aim to create a drink that more effectively treats hypoglycaemic episodes in diabetics as opposed to current methods.

School: Creagh College County: Wexford Teacher: Enda Gallagher Student(s): Brandon Paisley, Sam Walsh

Title: An investigation into Autumn foraging activity of four species of Irish bat.

Overview: Investigating what is the latest date and the lowest temperature that four species of Irish bat will be active and foraging before going into hibernation.

School: Magh Ene College County: Donegal **Teacher:** Yvonne Higgins Student(s): Rachel Moore, Anne Marie Roberts, Rachel Connolly

Title: Scrúdaigh do Theanga – an Géineolaíocht taobh thiar de do Bhlas Overview: Fiosrúcháin a dhéanamh ar an chóimhéas de dháltaí atá ina ollbhlastóirí, neamhbhlastóirí agus an nasc atá aige sin le haiste bia agus BMI an duine.

School: Coláiste Oiriall County: Monaghan

Teacher: Roisin uí Choinn Student(s): Niamh Ní Mhaolábhail, Aideen Nic Gabhann

4523

Title: Why are gumshields so unpopular amongst Gaelic Football

players?

Overview: Our project aims to find out why sports players don't wear gumshield's during games and what are the common problems associated with them

School: Castlecomer Community

School

County: Kilkenny Teacher: Fiona Morrissey Student(s): Nicole Allen O'Keeffe, Colleen Booth, Sarah Dwyer

Title: Does Manuka honey provide a viable alternative to hormone rooting powder for plant propagation? Overview: To compare the quality of

cuttings rooted with Manuka honey, hormone rooting powder, and a control. Both hardwood and soft tip cuttings were investigated

School: Mount Mercy College County: Cork

Teacher: Aaron O'Sullivan Student(s): Claudia Kavanagh, Abbey White

Title: Blast from the Past: Can scents and tastes trigger your memories? Overview: Our project aims to examine if certain tastes and smells can trigger memories.

School: St Mary's Secondary School - Macroom

County: Cork Teacher: Jennifer Butler

Student(s): Maryann O'Shea, Emma Cronin, Sarah Wynroe

4526

Title: An investigation into the antibacterial properties and the fermentation capabilities of the yeast content in Kefir

Overview: An investigation into the antibacterial activity of kefir and the fermentation capabilities of the yeast content in kefir, using kefir from different households.

School: Loreto Secondary School -

Balbriggan County: Dublin **Teacher:** Niamh Mc Nally

Student(s): Delia Istoc, Anna Moroz

4527

Title: To investigate the effects of microplastics on aquatic plants Overview: Our goal is to investigate the effects of micro-plastics on the rate of photosynthesis in aquatic plant life such as pondweed and various seaweed.

School: Glanmire Community College

County: Cork Teacher: Dan O'Sullivan Student(s): Sean Soden, James Byers, Jack Daly

4528

Title: Artificial vs natural sugar on performance of physical activities Overview: In our project we will be comparing the performance in tests of our participants whilst they have artificial and natural sugars in their systems.

School: Ardscoil Ris County: Limerick Teacher: Phil Harte Student(s): Alex O'Halloran, Kevin O'Grady, Alex Long

4529

Title: Is clean country air just a myth? Overview: Our project surrounds the use of lichens as biological indicators to test our theory that the quality of air deteriorates as it moves inland. School: Athlone Community College

County: Westmeath Teacher: Niall Carty Student(s): Juliette McGrane, Rebecca Campion, Laoise O'Brien

4530

Title: The effect of colour on the perception of taste

Overview: Our project will investigate if the colour of the drinks is a factor in

the perception of taste. School: C.B.S. Roscommon County: Roscommon Teacher: Laura Bruen Student(s): Roddie Mc Guinness, Declan Connelly, Joseph O'Malley

4531

Title: The relationship between the number of tongue papillae and taste **Overview:** This project investigates the correlation between the number of papillae on the tongue and fussy eaters.

School: Portumna Community School

County: Galway Teacher: Sinead Keena Student(s): Shauna Smyth, Hilary Lyons, Makenzie Winters

4532

Title: Do onions and garlic have a place in modern-day medicine? Overview: To investigate if onions and garlic can stop people getting sick. We hope to be able to use them as an alternative to antibiotics.

School: Castlerea Community School County: Roscommon

Teacher: Pauline Dervin Student(s): Aoibhe D'Arcy, Kianna Connell

4533

Title: The secret to cleaning your gum shield in less than a minute, grab and go

Overview: Our project aim is to create A solution that can be used on the side of the pitch that kills the bacteria on gum shields.



















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School: St Marys College County: Wicklow Teacher: Joanne English Student(s): Anna Keating, Alaidh Kavanagh

4534

Title: Ag tabhairt aire chuig ár sruthanna uirbeacha atá i bhfolach measúnú ar an caighdeán uisce Overview: Measúnú ar an caighdeán d'uisce agus éiceolaíocht i sruthanna uirbeacha. Beidh na paraiméadair tomhaiste thar am chun rannóga sruthanna a n-ionannaím cá mbíonn foinsí truailliú.

School: Coláiste Eoin County: Dublin

Teacher: Cionnaith Ó Dubhthaigh Student(s): Alex Mandal, Naoise Mac Conghail

4535

Title: An Ecological Study and History of Garnish Island in West Cork and what makes it so unique in Ireland. Overview: Our project looks at the unique ecological diversity of Garnish island. Our project embraces the climate and all aspects of this special island.

School: Coláiste Pobal Bheanntrai County: Cork Teacher: James McSweeney Student(s): Ciara Crowley. Emma Burke, Kayleigh Manning

4536

Title: A sustainable approach for growth promotion and improved disease-resistance capacity of plants using aspirin

Overview: An investigation into how aspirin affects plant growth and development, flower life and the defence forces of plants. School: Coláiste Choilm County: Cork Teacher: Karina Lyne

Student(s): Emma Quigley, Aideen Kelly

4537

Title: The effects of energy drinks on heart rate and blood pressure Overview: We intend to test different brands of energy drinks, on a sample group of teenage girls and record the effects on blood and heart rate.

School: St. Joseph's Secondary School

County: Clare **Teacher:** Marguerite McGuinness Student(s): Orla O'Brien, Alex O'Sullivan, Emma Cooper

4538

Title: An investigation of bacterial growth in wind instruments Overview: Our aim is to investigate the bacterial growth found in wind instruments and whether it is influenced by a variety of different factors.

School: Coláiste Choilm

County: Cork Teacher: Karina Lyne Student(s): Matilda Prendergast, Jay Fitzgibbon

4539

Title: The affects of six commonly used acne treatments on spots Overview: We are going to get six commonly used acne treatments and we are going to test each one on skin bacteria in agar plate.

School: Coláiste Eamann Rís County: Kilkenny

Teacher: Catherine Stapleton Student(s): Liam Cleere, Luke Butler

4540

Title: A Tick in Time

Overview: Our aim is to educate people on a disease often overlooked. It has limited medication in Ireland, with no known cure. It's called Lyme's Disease.

School: Scoil Mhuire - Kanturk

County: Cork Teacher: Aidan Noone Student(s): Shauna O' Connor, Cliodhna Martin, Jackie Osei

Title: Immune-nation Overview: An investigation into why there is a decrease in the administration of certain vaccines and clarify fact from opinion.

School: Colaiste Mhuire - Mullingar

County: Westmeath Teacher: Eva Acton Student(s): Tao Caldwell, Steven Kennedy, Nathan Carballo

Title: A comprehensive study on the prevalence of age related diseases in nursing homes vs people living in their own homes.

Overview: Research about Dementia, osteoarthritis and type 2 diabetes. How do two different lifestyles and diets affect the likelihood of developing age related illnesses.

School: Salesian Secondary College, Pallaskenry

County: Limerick Teacher: John O'Flynn Student(s): Kate Gallagher, Ciara Fitzgerald, Ciara Dillon

Title: Resistance to antibiotics and its relationship with agriculture Overview: More bacteria that are

resistant to antibiotics are discovered every day. Agriculture, a major reason. An Investigation into the science and solutions to this.

School: Gaelcholáiste Chiarraí County: Kerry

Teacher: Tríona Uí Mhaolchatha Student(s): Andrew Moynihan, Seán Lynch

Title: An investigation of whether

oil has an effect on the ability of phytoplankton to photosynthesise Overview: We aim to investigate whether the oil released into the sea has an impact on the ability of phytoplankton to photosynthesise. School: Loreto Secondary School -

County: Dublin Teacher: Niamh Mc Nally Student(s): Niamh Richardson, Ella May, Sadhbh Culleton

4545

Title: The benefits of creating a glove thinner and more durable then latex for use in hospitals and clinics

Overview: In our project we are investigating the pros and cons of Latex gloves and creating a better alternative for use in hospitals and doctor clinics.

School: Dominican College -

Drumcondra County: Dublin

Teacher: Gemma Kirwan Student(s): Erin O'Dowd, Róisín Culligan, Robyn Hughes

Title: Does music genre affect milk quality and quantity of dairy cows Overview: This project is about the different effect of music genre on 87 Frisian dairy cows by the quality and quantity of the milk they produce.

School: Cistercian College **County:** Tipperary Teacher: Lesley Cox Student(s): Christian Elliott, Mark Dwver

4547

Title: Taibléidí 'Denta-Solve' -Taibléidí chun feabhas a chur ar shláinteachas béil daoine sa 3ú domhan

Overview: Táimid chun taibléidí a chruthú as ábhar nádúrtha chun feabhas a chur ar shláinteachas béil daoine sa 3ú domhan.

School: Gaelcholáiste Mhuire County: Cork Teacher: Aoife Ní Mheachair Student(s): Shay Slavin, Destiny Burdeos, Zhi Jie Chen

4548

Title: What is the most effective way of removing pesticides from our fruit and vegetables?

Overview: We plan to use different methods and mixtures to remove pesticides from fruit and vegetables. We will observe the mixtures/methods effectiveness using a nitrate tester. School: Ardscoil Ris

County: Limerick Teacher: Diane Condon Student(s): John McGuinness, Aaron Leahy, Stephen Cleary

Title: Comparative analysis of sea lettuce as an alternative fertiliser

Overview: Our main objective is to extract and examine sea lettuce from our local beach. We also aim to develop our own environmentally friendly fertiliser.

School: Sacred Heart Secondary

School County: Cork Teacher: Elaine Galvin Student(s): Aoife Moloney, Ailbhe Dunlea, Lydia Walton

Title: to examine if oral electrolytes supplements in the form of an over the counter purchased drinks have an effect on cardiovascular performance, tested during exercise.

Overview: We are investigating the effect of electrolytes in electrolyte based drinks have on the cardiovascular performance during exercise and if there is a detectable relationship.

School: Scoil Mhuire gan Smál County: Roscommon Teacher: Padraig Harlow Student(s): Emma Donnelly, Sheena Kilroe, Oonagh Kelly

4551

Title: Do bats use woodpecker holes to roost in Ireland?

Overview: We want to find out if bats in Ireland roost in Woodnecker holes around the country. We think this would benefit science.

School: Castlecomer Community School

County: Kilkenny **Teacher:** Fiona Morrissey Student(s): Ben Holden, Joseph O'Keeffe, Lorcan Scott

4552

Title: An investigation into the impact of compression of soil by farm machinery on plant and microorganism growth

Overview: How compaction of soil by heavy farm machinery affects the growth of plants, micro-organisms and the environment and how to prevent any harmful effects.

School: St. Mary's Secondary School County: Mayo

Teacher: Roisin McManamy Student(s): Laura Campion, Holly Kenny

Title: An investigation into the effects of living outdoors on serotonin levels **Overview:** We will be investigating the effects of living outdoors on our serotonin levels by camping outdoors for three nights without any artificial

School: Maria Immaculata Community College

County: Cork

Teacher: Bernadette O'Connor Student(s): Liadh Hennessy, Caitlin Hurley, Anna Deane





4554

Title: Natural or Not? Comparing Microbead Face Scrubs and Naturally Exfoliating Cleansers to Determine the Optimum Product for Adolescent Females

Overview: To determine the optimum face scrub for adolescent girls by comparing the environmental impact and effectiveness of microbead products and natural commercial and homemade products

School: Ardgillan Community College

County: Dublin

Teacher: Laura Sheahan

Student(s): Emily Cathcart, Lucy Ellis

Title: Memory and the dive response Overview: To determine whether the physiological "dive response" affects long and short term memory recall in swimmers vs non-swimmers and if there is a gender bias.

School: Muckross Park College

County: Dublin Teacher: Lisa Shine Student(s): Sameera Smith, Jennifer Williams, Rachel Kane

Title: Compensatory growth and its application to irrigation in drought prone areas

Overview: Our project examines compensatory growth and how it could be used to increase crop yield using less water and its applications in

drought prone countries. School: St Raphaels College

County: Galway **Teacher:** David Fogarty Student(s): Miriam Kennedy, Aisling Casserly

4557

Title: Are teenagers carrying risk factors now that would only have been seen in older people before? Overview: This project is about identifying the risk factors of having a high body mass index, high blood pressure and high cholesterol in teenagers.

School: Millstreet Community School

County: Cork

Teacher: Jennifer O'Donoghue Student(s): Jordan Kiely, Abby Ring, Emma Mc Sweeney

Title: Bird boxes of any benefit? Overview: We're going to look into the success of the bird boxes which where put up on farms around Longford as part of the GLAS scheme. School: Ardscoil Phadraig County: Longford Teacher: Michael Domican Student(s): Brad Flynn, Patrick O'Reilly

Title: Does the Butevko method of breathing reduce asthma symptoms? Overview: A comparative investigation into different treatments for asthma and how breathing through your nose can relieve asthma symptoms without the need for inhalers or medication

School: Presentation Secondary School - Mitchelstown

County: Cork

Teacher: Claire O'Brien Student(s): Claudia O'Brien, Kathryn Gallen, Louise Devaney

4560

Title: The effects of residential solid fuel burning on local air quality Overview: We want to investigate what impact residential solid fuel burning has on the local air quality, and if coal, peat and wood have similar contributions.

School: Kinsale Community School

County: Cork Teacher: Shaun Holly Student(s): Freyja Hellebust, Klaudia Wisniewska, Patrick Gowran

4561

Title: Ag chuir comhtholgadh chun

cinn

Overview: Turgnamh chun imscrúdú a dheanamh ar na éifeachtaí fadtearmach a bíonn ag comhtholgadh ar déagóirí

School: Gaelcholáiste Cheatharlach

County: Carlow Teacher: Julia Coffey Student(s): Ciara Ní Ógáin, Niamh Ní Riain, Kate Ní Dhúlaoich

4562

Title: Balancing Ability and Physical Activity.

Overview: Our project aims to investigate whether physical activity levels decline as adolescents age, and whether there is an existing relationship between physical activity and balance.

School: Loreto High School

County: Dublin Teacher: Angela Benson Student(s): Aisling Murray, Amy McCabe, Amelia Rodgers

Title: Protein milk Vs Full-fat milk: A comparative study of Protein milk and Full-fat milk on the muscle development of female teenagers using muscular endurance type exercises.

Overview: Our project aims to investigate whether protein milk increases muscle development or if it is just a marketing ploy by companies to raise profits.

School: Sacred Heart Secondary School

County: Cork Teacher: Elaine Galvin Student(s): Laura O'Donovan, Leah McAree, Méabh O'Donovan

4564

Title: The effect of Kinesiology tape vs Placebo in sports injuries involving

Overview: It is based on the effect of kinesiology tape affecting the muscles. We would like to investigate the difference between a placebo and kinesiology tape.

School: Scoil Mhuire gan Smál

County: Roscommon Teacher: Padraig Harlow Student(s): Zara Hunt, Mairead Tully, Roisin Tully

4565

Title: A quantifiable analysis of radiation exposure of human gametes and its potential effect on reproduction

Overview: An investigation of radiation exposure levels to human gametes, being transported from a donor bank(USA) to IVF clinic(Ireland) and examine its effects on gametes.

School: Mount St Michael

County: Cork Teacher: Alison O'Neill Student(s): Roisin O'Sullivan, Aoife McSweeney, Kate Creedon

4566

Title: Comparing CSII (Continuous Subcutaneous Insulin Infusion) with MDI (Multiple Daily Injections) in type 1 diabetic children

Overview: In our project we will compare the effects of CSII and MDI treatments on type 1 diabetics. School: Presentation Secondary

School - Thurles County: Tipperary

Teacher: Charlene O'Brien Student(s): Emma Buckley, Rachel Sweeney, Leah Ryan

4567

Title: Are the best before dates "milking" the consumers? Overview: We will investigate various milk brands to see if their contamination is true to the best-

before date set. School: St Marys College County: Wicklow Teacher: Joanne English Student(s): Alice Keenan, Aoife McBride

4568

Title: Is snail gel more effective on scars than the specialist skincare products that are widely available Overview: We plan to carry out an experiment by using and comparing the effects of snail gel and the widely known Bio - Oil on scars. School: St Aloysius College -Carrigtwohill County: Cork Teacher: Angelina Carew

Student(s): Natalia Kowalczyk, Mairead Dennehy

4569

Title: Ag fiosrú na heifeachtaí de phróibhitheacha E.M.

Overview: We are investigating how effective E.M. Probiotics are in water treatment, as a cleaning product and as a natural biological decomposer.

School: Meanscoil Gharman

County: Wexford

Teacher: Elaine Nic Réamoinn Student(s): Conn Caomhánach Ó Muiris, Con Ó Meachair, Jack Ó Nuallain De Fuitnigh

4570

Title: An Tionchar a Bhíonn ag Factóirí Éagsúla ar Scléaróis Iolrach

Overview: Imscrúdú ar an tionchar a bhíonn ag fisiteiripe, aeráid agus aiste bia ar an ngalar scléaróis iolrach.

School: Coláiste Iosagáin

County: Dublin

Teacher: Róise Ní Fhátharta Student(s): Emily Bhreathnach, Alanna Ní Thiarnáin

4571

Title: An gaol idir leibhéil meileatoinine i gcorp an duine agus grianghníomhaíochaí áitiúla

Overview: Fiosrúchan faoin dtionchar atá ag déine agus tréimhse gréine ar tháirgeadh na meileatoinine sa chorp agus na héifeachtaí a bhíonn aige sin ar shláinte duine.

School: Coláiste Iosagáin

County: Dublin

Teacher: Róise Ní Fhátharta Student(s): Nell Breathnach, Ruth Ní Mhaolchalann, Sally Howard Ihle

4572

Title: The elimination of THMs from water supplies by the polarised separation of water from organic

Overview: We are looking into removing trihalomethanes, which have been linked to cancers, from water supplies by the polarised separation of water and organic matter.

School: Scoil Mhuire - Kanturk

County: Cork Teacher: Aidan Noone

Student(s): Tara O'Brien, Diane Harty

4573

Title: An investigation into the best absorptive material for horse bedding Overview: We would like to find the best absorption material for horse bedding through a series of experiments and tests.

School: Castlerea Community School County: Roscommon

Teacher: Pauline Dervin Student(s): Cora Sharkey, Lisa O'Rourke

4574

Title: The Toxic Truth; Ants vs Fertilisers.

Overview: We plan to investigate if

















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the spraying of chemical fertilisers on agricultural land in recent years has had an impact on declining numbers of ants.

School: St Aloysius College -Carrigtwohill

County: Cork

Teacher: Angelina Carew Student(s): Laura Crowley, Aisling Buckley, Eimear Hennessy

Title: The interesting relationship between dogs' defecation habits and the earth's magnetic field.

Overview: Investigating the relationship between dog's magnetoreception and their defecation patterns and how reduced mobility can alter this behavior. School: St. Mary's Secondary School

County: Mayo

Teacher: Roisin McManamy Student(s): Ruth Byrne, Ava Conmy, Louise Foody

Title: Benefits of planting kale both financially for farmers and physically for cows.

Overview: Studying cows that have been in kale during their first winter and cows which stayed indoors. To find out which is financially better for farmers.

School: Salesian Secondary College, Pallaskenry

County: Limerick Teacher: John O'Flynn

Student(s): Colm Walsh, Sean Cregan

Title: A study of Factor V Leiden mutation: its inheritance and its consequences

Overview: Factor V Lieden is a mutant form of F.V (a normal clotting factor present in human plasma) which if present can lead to clotting disorders. School: Skibbereen Community

County: Cork

Teacher: Mags Breen Student(s): Emer McCarthy, Jessica Beechinor, Nora Crowley

Title: Are the number of people canoeing in Irish rivers contributing to the spread of Aphanomyces astaci in the water?

Overview: We wish to investigate if people canoeing in rivers attracts more Astacoidea and contributes to the vast spread of Aphanomyces astaci in the Irish waters.

School: Loreto Secondary School -Balbriggan

County: Dublin

Teacher: Niamh Mc Nally Student(s): Chloe Johnston, Tara Kelly

Title: Natural antibiotics: can they solve the resistance crisis? Overview: Investigate natural substances' ability to prevent and treat bacterial illnesses in the context of bacteria growing resistant to antibiotics and compare their effectiveness against prescribedantihintics

School: Christ King Girls Secondary

School

County: Cork Teacher: Julia White Student(s): Aisha Ghori, Aisling O' Connor

Title: Should teenage girls get the HPV vaccine?

Overview: We will be learning and teaching the possible effects of getting the HPV vaccine and the possible effects of not getting it. School: Roscommon Community

College

County: Roscommon Teacher: Tom Flynn Student(s): Tara Hegarty, Nicole Neary

SENIOR GROUP

4600

Title: A test of the intermediate disturbance hypothesis on a rocky sea shore in Bundoran

Overview: We wish to investigate the effect of the Intermediate Disturbance Hypothesis (IDH) on species richness and abundance at a rocky seashore in Bundoran.

School: Magh Ene College County: Donegal **Teacher:** Yvonne Higgins Student(s): Aine Dillion,

Nlamh Creevy, Katie Curran

Title: An investigation into two types of stretching and muscle temperature increases pre, during and post

stretch and implications for sporting performance

Overview: We will discover whether dynamic or static stretching allows more blood flow in muscles and increases muscle temperature, thus increasing sport performance and reducing injuries.

School: St Vincent's Secondary School

County: Louth Teacher: John White Student(s): Catherine Raftis, Klara Ewings, Damilola Alabi

4602

Title: An investigation into the effect of lysozyme on the structural integrity of antibiotic resistant bacteria Overview: An investigation of the interaction between lysozyme and the cell walls of drug resistant bacteria and the development of a feasible solution to drug resistance School: Marian College County: Dublin Teacher: Alison Bird Student(s): Dorian Dederko,

4603

Dean Gleeson

Title: An investigation into the effect of different plant extracts on the action of amylase on starch digestion Overview: We want to investigate the effect of different plant extracts on the action of amylase during starch digestion.

School: Magh Ene College County: Donegal Teacher: Yvonne Higgins Student(s): Jamie Lee Clancy. Rachel Currid, Anna Gavigan

BTYSTE 2018 Events

Check the schedules on pages 64-66 for specific show times









4604

Title: A study into the effect of active ingredients used in anti-dandruff shampoos on basidiomycetus Overview: Our project is based around the study of active ingredients used in anti dandruff shampoos on basidiomycetus.

School: Our Lady's Bower County: Westmeath Teacher: Julie-Anne Greanev Student(s): Katie Ward. Eimear Bohan

4605

Title: Improving biodiversity within the urban landscape

Overview: We are investigating how to improve biodiversity in the woodland based in SERC Bangor

School: South Eastern Regional College - Bangor Campus County: Down Teacher: Jonathan Cash Student(s): Shannon Thompson,

4606

Rachel McNamara

Title: An féidir linn plandaí a fás le ceirtíní tais

Overview: To explore if wet wipes can be used to grow plants as a means to do something positive in response to a current environmental hazard School: Gaelcholáiste Luímnigh County: Limerick Teacher: Ciara Ní Dhrisceoil Student(s): Grace McClure,

4607

Title: Grass Roots of Muscle Soreness **Overview:** To investigate the effect of playing sport on artificial surfaces (AstroTurf), & how it contributes to muscle soreness and serious injury in voung athletes.

School: St. Joseph's Secondary School County: Meath

Teacher: Bronagh Farrell Student(s): Níamh Yourell, Megan Gorman

Title: Are there benefits to using health-tracking technology Overview: Our project aims to measure whether using healthtracking technology has an effect on peoples rate of exercise and whether the visual reminder encourages more

School: Bush Post Primary School County: Louth **Teacher:** Gary Galvin Student(s): Gary Murphy, Ciarán Murphy, Brendan Woods

4609

Title: An examination of the effect of waterborne environmental contaminants on plant physiology Overview: Our project aims to examine the effects of waterborne contaminants, due to climate change and pollution, on plant physiology. School: St Peter's College - Wexford County: Wexford **Teacher:** Eimear Hennelly Student(s): Jack Hayden, Adam Mullins, Daniel McCarthy

Title: An Investigation into which exercises can improve the accuracy of a person's peripheral vision

Overview: We aim to assess hockey and rugby players' peripheral vision before and after they practise a series of vision training exercises.

School: Wesley College - Ballinteer County: Dublin

Teacher: Laura Walsh Student(s): Sara Rafter. Abby O'Sullivan

4611

Title: Antifungal uses of oregano to stop the growth of mould on silage Overview: Our project is to control the growth of mould in silage and haylage by the use of oregano. School: South Eastern Regional College - Lisburn County: Antrim

Teacher: Hannah Shields Student(s): Stephanie Robinson, Jonny Elder

Fionn Kiely

Title: Are there gender differences in the detection of colours? Overview: We intend to find out which of the human sexes is better at distinguishing colours. School: Ard Scoil Na Mara County: Waterford Teacher: Niamh Shannon Student(s): Tom Kiely,

Title: Can birds predict the weather? Overview: Our project is to observe whether birds can anticipate changes in weather by studying their feeding patterns.

School: Mercy College County: Sligo Teacher: Caoimhe Lynn Student(s): Rosaleen Keehan, Amy Keenan O'Hara, Molly Budd

Title: Ecological stress reduction within a college

Overview: This project will measure the effect of ecological exposure on stress levels. We will measure stress before and after exposure to an animal house and woodland. School: South Eastern Regional

College - Bangor Campus County: Down Teacher: Ionathan Cash Student(s): Beth Morrow. Floise Nabi

Looking for a specific project?



Check the 2018 PROJECTS - QUICK SEARCH on pages 10 - 13 or download our app!

Social and Behavioural Sciences

Chemical, Physical and **Mathematical Sciences**

1100 - 1720

2100 - 2608

Technology

Biological and **Ecological Sciences**

3100 - 3607

4100 - 4614



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100% EDUCATIONAL. 200% ENTERTAINING. 300% EXPLOSIVE. 400% FUN.

WARNING! WARNING! WARNING! **NARNING!**

WARNING! WARNING! WARNING!

This is a public safety announcement... Please keep your head firmly on your shoulders, and your arms, legs and feet inside the ride at all times - Ministry of Science Live is about to explode onto the stage!

Ministry of Science Live is not your ordinary science show – it comes with a bang. It comes with a whoosh. But most of all is comes with a **hovercraft** built on stage.... And a few explosions too!

The show takes an anarchic approach to science communication whilst looking at the inventors and engineers who have shaped and inspired the modern world that we live in.

Join the super talented presenters and the voiceover from above (X Factor's Peter Dickson) as they take you on a journey using brilliantly designed demonstrations with a few loud bangs to lead the way.



MINDBLOWING MAGIC OF SCIENCE

BBC Star David Meade will take his audiences on an incredible ride as he uses the science of magic and illusion to make the impossible happen live on stage.

In a fun and interactive show, he will bend the laws of physics and challenge thousands of students every day in the audience to work out how he makes miracles happen on stage. Can he make things float right in front of your eyes? Can he read your mind? Is it all really done with the brilliant secrets of science? All this and more in David Meade's jaw dropping interactive science show.



BT **ARENA**

David Meade is a speaker, lecturer, author, and broadcaster, and has become one of the most recognisable faces in the country after a string of innovative projects on the BBC. He's developed amazing skills of memory, psychology, communication, and mentalism that has made him one of the most sought after performers in Europe.

THE REAL SCIENCE OF THE CIRCUS

A live science show like no other.

Performed by James Soper, the juggling scientist, The REAL Science of the Circus is a spectacular combination of top quality circus skill and science education. James is a Guinness World Record holding juggler, fully qualified teacher and ex-professional circus performer and he demonstrates the forces curriculum in a way that is guaranteed to enthrall and inspire your audiences in equal measure.

Spectacular juggling and balancing tricks are used together with lots of volunteer help to show how forces work and combine when real circus performers show off their skills.

Sponsored by Science Foundation Ireland Smart Futures programme read all about the different types of careers that are available to you on www.smartfutures.ie



in association with **SFI Smart Futures**













A JOURNEY THROUGH SPACE AND TIME: 3D



Sixty years ago, Sputnik 1 was the first ever man made object to make it into orbit around our planet.

Today we rely heavily on satellite technologies to communicate globally. They help us find our way through satellite navigation. We can observe our wonderful blue green world from above using the perspective from space to look at our world as one living ecosystem or monitor how we can best utilise natural resources or minimise our influence on the planet.

Every night and day there is always a human presence in space. We have sent sentinels to other worlds and space exploration has brought us some incredible discoveries about the Sun and our Solar System, changing the way we perceive other worlds and our own Planet Earth.

Our telescopes look back in time and across the universe to bring us new knowledge of the cosmos to fascinate and inspire us with celestial curiosity.

This show will take you on a journey of discovery through space and time to observe the wonders of the cosmos in which we live!





They're back on your screens and they're back at the BTYSTE

Machines from TV's Robot Wars will be fighting it out live!





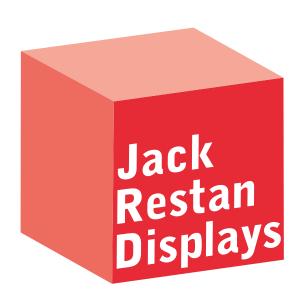
WWW.MECHATRONS.COM

See your favourite robots take to the arena in our action packed family show. Robot Wars Champions will be taking to the arena including; Thor, Iron Awe, Beast and veterans such as Storm 2. Ripper and KingB. Presiding the battles will be our robot judges the Dalek and R2-D2! Also, everyone's favourite "non-judge" AL-1X is back again this year for more mayhem.

As well as the heavyweight action, there will be a chance to see the smaller featherweights, with up to 10 robots in one fight! The robot boxers will be taking to the arena, these unique 6foot tall robots go toe-to-toe in a pneumatically powered scrap to the death! Keep and eye out for our rogue Creeper who also likes to make an appearance.

Last year this show saw sell out audiences, make sure you get you get on the gueue early to avoid disappointment! Want to build your own robot? There is plenty of opportunity to talk to the roboteers and also get autographs around the pits.

ROBOTS ARE THE FUTURE AND THE FUTURE IS NOW. IT'S TIME YOU WERE PART OF IT.





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THE WORLD OF SCIENCE & TECHNOLOGY

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Food Group

W1 ABP Food Group

ABP Food Group is one of Europe's leading privately owned agribusiness companies. The company operates 46 processing plants in Ireland, UK, Spain, France, Holland, Denmark, Austria and Poland and has an additional sales presence in Italy, Germany and the US. ABP Food Group employs over 10,000 people and operates across 4 divisions: Beef, Pet Food (C&D Foods). Proteins and Renewables (Olleco).

As a business that works with thousands of farmers on a weekly basis, promoting and improving safety on Irish farms is a very important issue to ABP. The company has sponsored a farm safety prize at the BTYSE since 2014 and has also been involved in a number of other on farm and educational initiatives. For further information is available at www.abpfoodgroup.com or #safefarmsnow.



W2 Henkel

Henkel is a global leader of brands and technologies organised into three Business Units Home Care, Beauty Care and Adhesive Technologies.

Founded in 1876, Henkel holds leading market positions both in the consumer and industrial businesses, with brands such as Persil, Schwarzkopf and Loctite.

Henkel employs 51,000 people globally with sales expected to be over 19 Billion in 2017.

Henkel Ireland Operations & Research Ltd, located in Tallaght, Dublin is a centre of excellence for adhesive technologies. New Innovative products are developed in the Dublin R&D centre where there are currently 120 employees, the majority of whom are science & engineering

The technology centre is a primary location for Global Acrylics Technology development, with fundamental & applied research.

The technology centre collaborates with academic research institutes in many areas and as a materials science company it invests in adjacency technologies such as Additive



W3 HEADS ITN: University College Dublin

From the young school child cycling to school, to the daring, highspeed Formula ${\bf 1}$ motorcyclist, helmet safety resonates with all ages and all walks of life. Whether used for recreational activity or for extreme sports, it is in our interests as participants and spectators that helmet safety standards continue to evolve and improve.

The scientific goal of the HEADS Innovative Training Network, a Horizon 2020 funded project that is being coordinated by UCD, is to improve the understanding of head impact injury and to design new helmet standard test methods that recognise the influence of rotational kinematics. This will lead to improved helmets and a reduction in the severity of injuries and the numbers of fatalities. Our objective will be achieved through a combination of computational simulations of real-life accidents, experimental and computational investigation of injury thresholds, and design of new helmet certification tests. The Network's industry partners manufacture high quality helmets for equestrian sports, cyclist and Formula 1 motorcyclists and its academic partners are leaders in this field of research.

Visit the HEADS stand to find out more about our research and to explore some of the techniques we are using to advance our understanding of head injury and helmet safety.



UCD Social Sciences

W4 UCD Social Sciences

www.ucd.ie/socialsciences

UCD Social Sciences is the leader in Ireland for education and research in the social sciences. The range of internationally-recognised social sciences courses in University College Dublin is unrivalled and includes Archaeology, Economics, Education, Geography, Information and Communication Studies, Philosophy, Politics and International Relations, Psychology, Sociology, Social Policy and Social Justice.

Social sciences students explore the nature of our society and the challenges we face including climate change, crime and violence, social and economic inequality, gender justice, sustainable cities and human development. Outstanding and ground-breaking research by UCD's internationally renowned social sciences researchers have had profound impacts on the understanding of key issues in society as well as directly shaping public discussions and policy.





Building on our educational offerings and in response to the needs of graduates to develop strong research skills, acquire real-world work experience and cultivate a global mindset, University College Dublin has launched a new four-year BSc Social Sciences degree, commencing September 2018.

Visit the UCD Social Sciences stand and meet current social sciences students in UCD who can talk about our new and continuing social sciences degrees, explore your knowledge of the social sciences in everyday life, and try out some high-tech equipment used at UCD in behavioural experiments.



W5 The Irish Centre for High-End Computing (ICHEC)

The Irish Centre for High-End Computing (ICHEC) is a national technology centre that manages Ireland's largest supercomputer for scientific research, Fionn. Through high performance computing (HPC), we enable scientists and industry to carry out large-scale simulations and data analysis in a wide range of areas from nanotechnology, climate and weather, engineering, geology, astronomy to genetics. ICHEC also collaborates with many other HPC centres around Europe as a member of PRACE (Partnership for Advanced Computing in Europe), which offers some of the most powerful supercomputers in the world for research. This year the ICHEC stand will provide a variety of exhibits related to HPC and its applications. Our booth will also host the launch of a new campaign to choose a name for Ireland's next supercomputer to replace Fionn in 2018!



W6 The Irish Patents Office

The Patents Office is a statutory office and operates under the aegis of the Department of Business, Enterprise and Innovation. The role of the Patents Office is to provide an efficient and effective system of industrial property protection. This is to be achieved through the protection of industrial property rights in the fields of patents (for inventions, function). trade marks (name, logo, slogans) and designs (appearance, shape & configuration) and the dissemination of relevant information in conjunction with each of these activities. Come along and visit us at our stand to find out more about patents, trademarks, designs or copyright. Test your knowledge by taking part in our quiz and you could be the lucky winner of one of our prizes! We look forward to meeting you! For further information on the Patents Office you can check out www.patentsoffice.ie or follow us on Facebook.



W7 Teagasc Agriculture and Food Development Authority

Teagasc the Agriculture and Food Development Authority is the national body providing integrated research, advisory and training services to the agriculture and food industry and

Teagasc undertakes innovative research in: Animal and Grassland Research and Innovation; Crops, Environment and Land Use: Food: and Rural Economy and Development, Teagasc is a large supporter of post-graduate research, with some 250 pursuing post-graduate programmes (Walsh Fellowship Scheme - Masters and PhD) at any one time.

Teagasc colleges are strategically located and deliver a wide range of Level 5 and Level 6 courses in agriculture, horticulture, equine and forestry. The colleges also collaborate with a number of third level institutions in the delivery of Higher Level courses in agriculture and

The Teagasc Advisory Service, through a nationwide office network organised into 12 regions, provides a local service to farmers.



W8 CONCOS

Coláistí Gaeilge

Tá fíor thábhacht ag baint le Coláistí Samhraidh chun feabhas a chur ar labhairt, líofacht agus saibhreas na Gaeilge do dhéagóirí a bheas ag iarraidh na marcanna is mó a bhaint amach san Ard Teistiméireacht. Tá 50% marcanna le fáil ar an Teanga Labhartha, sé sin, 40% don béaltriail agus 10% don cluastuiscint.

Bígí linn i Samhradh 2017 chun spraoi, spórt agus craic a bheith agaibh agus sibh ag cur feabhas ar bhur gcuid Gaeilge.

Irish Language Colleges

Irish language Colleges have a very important role to play in improving fluency and enriching the spoken Irish Language for teenagers who want to get the highest marks possible from the Leaving Certificate.

There is 50% of marks given on the spoken language, 40% for the Oral exam and 10% for the Aural exam. Join us this summer (2018) for fun, sport and craic while improving your Irish.



W9 Junior Achievement Ireland (JAI)

Junior Achievement Ireland (JAI) encourages young people to remain in education and helps them develop the skills they need to succeed in a changing world. Junior Achievement is part of a worldwide organisation reaching 10 million young people each year. Established in Ireland in 1996 JAI has built up a strong demand from schools throughout the country and created successful partnerships with over 150 leading organisations. During the 2016/17 school year 60,000 students are participating in entrepreneurship and STEM skills programmes taught by 3,000 volunteers from the world of work. Volunteers act as role models - the messenger is as important as the message. They are recruited, trained and supported by the JAI team, teaching their programme in the classroom once a week for five weeks. 16 structured programmes are taught to 6-18 year olds (primary and secondary students) with an age appropriate programme for every class in primary and a menu available for secondary schools.



W10: Cumann na bhFiann

1. Coláiste na bhFiann

Coláiste na bhFiann has nearly 50 years' experience running Irish language Summer Courses in both Gaeltacht areas and residential colleges. The main purpose of the organisation is to teach young people to speak Irish in a welcoming environment that encourages a positive attitude towards the language. Building on the basics of Irish learned within the traditional schools' structure, Coláiste na bhFiann has developed a formula that has successfully helped generations of young people to enjoy using and improving their Irish language skills.

2. Cumann na bhFiann

Cumann na bhFiann is the aftercare service run by Coláiste na bhFiann. Cumann na bhFiann organises weekly Irish language youth clubs giving young people the opportunity to use and improve their spoken Irish. By attending Cumann na bhFiann regularly, fluency in Irish is maintained and improved, thus normalising the use of Irish in everyday life. It is vital that young people are given the opportunity to recognise the advantages in speaking Irish. There are currently 60 clubs across the country which run on a weekly basis.



W11 Science & Technology in Action

Have you ever wondered how the science taught at school really links to what is practised in our leading organisations?

Would you like to learn more about how the curriculum relates to real applications of science and technology in the workplace?

Science & Technology in Action (STA) is an innovative teaching and learning resource which brings industry and education together. For use by second level teachers and students, all the resource materials across the editions are available on www.sta.ie and the latest 12th edition of the hard copy packs has been delivered to each school free of charge (during November). Each lesson in the pack relates to the activities of the participating organisations whilst also linking to the curriculum. In this way, the lessons help to enhance the relevance of science and technology to our everyday life. This grounding in reality is designed to raise awareness and engage students in the real world of science and technology.











THE WORLD OF SCIENCE & TECHNOLOGY

connecting women in technology

W12 CWIT

About Connecting Women in Technology (CWIT)

CWIT was founded by Dell EMC, Microsoft and Accenture in 2011 to bring together technology companies with the vision of "connecting and supporting the development of women in the technology industry, now and for the future". Since then, CWIT has grown to 18 member companies, including BT, Dropbox, Eir, Ericsson, Facebook, Google, Hewlett Packard Enterprise, HPI, IBM, Intel, Linkedin, Twitter, Virgin Media and Vodafone.

CWIT's objective is to attract, retain, inspire and empower women in the technology industry. Representatives from member companies collaborate on a voluntary basis to provide programmes that deliver against these objectives.



W13 National College of Ireland

National College of Ireland is at the heart of Dublin's International Financial Services Centre, with its very own Luas Stop: Mayor Square – NCI. The campus never sleeps, as NCI provides both full-time and part-time courses, from certificate level through to Masters, specialising in computing, business, accountancy, finance, human resources, learning and teaching and psychology. The smaller class sizes and focus on support and well-being means that students have a more direct relationship with lecturers. First Year students are guaranteed on-campus accommodation, and Clubs and Societies make it easy for people to make friends. For 70 years, NCI has been a leading provider of graduates with the skills and knowledge to meet the emerging needs of the Irish economy. The college has forged strong links with employers and has achieved the highest graduate employment rate in Ireland at 98%.

Visit the National College of Ireland stand to learn how core STEM skills are essential to many career paths – meet with lecturers in psychology, data analytics, computing, accounting and business. NCI can help you build on your BTYSTE skills to complete an academic qualification or, perhaps, encourage you to commercialise your idea while studying marketing or business.

There are spot prizes for those who share #BTYSTE #MyNCI posts on Twitter or Instagram tagging @NCIRL - just show your post to anyone at our stand.

www.nicrl.ie

IOP Institute of Physics In Ireland

W14 Institute of Physics in Ireland

There will be hands on action at the Institute of Physics stand as we put the fun into fundamental physics. Try your hand at light colours, shadows and much more more. Along with exhibits and demos you won't leave empty handed as you can pick up plenty of posters, details on hundreds of physics career options and a guide to all the third level physics courses in Ireland.



W15 DCU Faculty of Science and Health

The DCU Faculty of Science and Health is an internationally recognised centre of excellence in scientific innovation and health transformation. We are committed to delivering an education that will equip students with a skills set appropriate to a successful and rewarding career that is of global significance and has direct social, environmental and economic benefit.

DCU Faculty of Science and Health. E: science@dcu.ie W: http://www.dcu.ie



W16 National University of Ireland Galway

NUI Galway

The students and staff of the College of Science at NUI Galway maintain vigorous research activity across the full range of Science disciplines including Chemistry, Physics, Mathematics, and the Biological, Biomedical, Environmental and Marine Sciences. At our stand you can

experience the thrill of scientific research by participating in STEM activities presented by three of our educational outreach programmes. Cell EXPLORERS, an initiative run by the School of Natural Sciences, promotes biological and biomedical sciences; Kitchen Chemistry proposes hands-on activities inspired by our Chemistry researchers; the Neuroscience outreach team showcases their recent advances in brain research. Visit our stand to participate in these activities, as well as studying Science at NUI Galway, whether your interests are in biology, chemistry, physics, mathematics, health science, earth or marine science, environmental science or any combination of these.



W17 University College Cork

Visit UCC Walk Like A Dinosaur Exhibit: a fantastic joint effort between our world-renowned scientists working in the fields of palaeontology and engineering.

Check out our interactive exhibit and figure out what kind of dinosaur you walk like. See if you can top our leader board!

Learn about the science behind fossil footprints. Discover how animation comes alive from our computer scientists and be fascinated by our real life dinosaur fossils!



W18 University of Limerick

UL's (www.ul.ie) stand provides you the opportunity to experience interactive activities in Biology, Chemistry, Physics, Engineering, Electronics, Equine Science, Architecture, Design, Mathematics, Computer Science, Gaming and much more. The Faculty of Science and Engineering (www.scieng.ul.ie) offers extensive teaching and research programmes in a wide range of industry relevant scientific and engineering disciplines. All UG programmes include periods of co-operative, industrial or teaching experiences. Its world-leading research translates into practice and the academic programmes offer unique & sustainable careers; whether it is studying artificial intelligence, the pursuit of renewable energy technologies or the development of innovative company solutions find out more about the opportunities available at our stand



W19 Coláiste na Rinne, Gaeltacht na nDéise, Co. Phort Láirge

Tá Coláiste na Rinne suite i nGaeltacht na nDéise i gCo. Phort Láirge. Bunaíodh Coláiste na Rinne i 1905 agus tá cúrsaí éagsúla idir lámha ann le breis is céad bliain anois. Bíonn Scoil na Leanaí ar siúl ó Mheán Fómhair go deireadh Bealtaine, bíonn Cúrsaí Samhraidh ann i mí an Mheithimh, i mí Iúil agus i mí Lúnasa. Thosaigh cúrsa nua don Idirbhliain i mbliana. Eagraítear cúrsaí do mhic léinn, lucht ollscoile agus daoine fásta freisin i gcaitheamh na bliana. Tugann Gaelscoileanna, Gaelcholáistí agus scoileanna eile turais - 3 lá nó 5 lá - ar Ghaeltacht na nDéise freisin. Tá gach eolas maidir le Coláiste na Rinne ar fáil ag www.anrinn.com.

Coláiste na Rinne has been promoting the Irish Language, the cultural and heritage of Gaeltacht na nDéise, for over 100 years. It provides many different courses in Irish and through the medium of Irish to a wide variety of students each year. See the College website for all information www.anrinn.com



W20 Colaiste Uisce

Colaiste UISCE is a unique activity based Irish Language College and Adventure Centre situated in the heart of Gaeltacht lorras, where the teaching adventure and water sports. Learning Irish is Fun is our motto at Colaiste UISCE. We now have over 24 years experience in providing safe, educational and enjoyable Irish and Adventure courses. The teaching of Irish through the thrilling medium of adventure sports helps students develop a positive attitude towards learning Irish. We believe that creating a positive environment to learn the language is the most important step towards learning the language. Students from Colaiste UISCE not only return from the Gaeltacht speaking Irish with increased ease but they will also have a greater understanding of the language as a result of our practical approach to teaching the language. of Irish is intertwined with the enjoyable experience of modern exhilarating.





CISCO

W21 Cisco

Cisco is the worldwide leader in IT and networking, We help companies of all sizes transform how people connect, communicate, and collaborate. Our strategy is to solve customers' most important business challenges. We deliver intelligent networks and technology architectures built on integrated products, services, and software platforms.

Cisco has developed as a global leader, in large part, through the genius and innovation of its dedicated and skilled global workforce. In a world built on increasingly complex technologies, success is driven not only by what you know but by what you can do with that knowledge. To continue to innovate now and for our future, it is more important than ever for the next generation to be equipped with the knowledge and skills to gather and evaluate evidence, make sense of information, and solve tough problems. These are the types of skills that students learn by studying science, technology, engineering, and math—subjects collectively

As a company employing over 73 thousand people worldwide, with 300 in Ireland across Sales, Engineering, Research and Development, Finance and Legal operations. Cisco operates on core values of customer focus and corporate social responsibility. We express these values through global involvement in educational, community, and philanthropic efforts. Cisco has been recognized around the world as a leader in employee experience. We make a meaningful difference for our people, our customers and the world around us.

Further information is available at www.cisco.com



W22 The Marie Keating Foundation

Following the death of their mother, Marie, in 1998, the Keating family promised that they would do everything they could to bring an end to cancer. They committed to provide families with the necessary information to prevent cancer or detect it at its earliest stages. Through its community information service, the Foundation's dedicated nurses have spoken to over 235,000 people about the causes and risk factors of cancer. The Foundation also raises awareness of the most common cancers affecting both men and women in Ireland through national campaigns. Through its Comfort Fund, the Marie Keating Foundation provides financial assistance to people who are receiving treatment for any kind of cancer and who find themselves in financial difficulty as a result. In 2017 to date over 486families received assistance from the Comfort Fund. The Foundation also supports cancer survivors through its free Survive & Thrive programmes which are held for men and women nationwide.



W23 The Irish Science Teachers Association

The Irish Science Teachers' Association (ISTA) is the largest subject association in the country. It was founded in 1961 and has over 1400 members from all sectors of education. The ISTA functions as a body dedicated to the professional development of its members and the advancement of science teaching. The ISTA maintains links with other bodies involved in science education in Ireland and associations for science education in other countries. ISTA representatives on each of the National Council for Curriculum and Assessment (NCCA) subject course committees are involved in the development of new curricula. Members may join the association online via its website at www.ista.ie. The website provides members with details of local branch meetings and national events as well as allowing communication between members via the forum facility. All members receive three issues of the ISTA journal Science during the year. BioPharmaChemical Ireland sponsors the ISTA annual science quiz for senior science students, which is held during science week. Further details of ISTA activities may be obtained from the ISTA desk or at www.ista.ie.



W24 BioPharmaChem Ireland

BioPharmaChem Ireland, and the Irish Medtech Association are the two Ibec associations that represent the biopharmachem and medical device sectors respectively. We are delighted to be joined on the stand by Eli Lilly, Amgen, BMS, Janssen and the Royal Society of Chemistry representing Biopharmachem along with Stryker and Medtronic representing Medtech.

We will be show casing how science and technology play an integral role in our daily lives.

Visitors to the stand will be delighted by a range of interactive demonstrations including live chemistry experiments, demonstrations of innovative medical technology instruments and a few surprises!

This is a great opportunity to find out about the range of careers in both the biopharma and medtech sectors. The biopharmaceutical, chemical and medtech sectors are vital for Ireland's economy. These growth sectors generate around 60% of the total country exports, employing over 58,000 people and representing significant and exciting career opportunities for future graduates.



W25 Analog Devices

At Analog Devices, we create unmatched technologies and solutions to solve our customers' problems in instrumentation, automation, communications, healthcare, automotive and numerous other industries. Our solutions play a key role in translating real-world phenomena like motion, sound, light and electromagnetic forces into electronic signals and back again. Innovation has always been a hallmark of Analog Devices, since our inception in 1965. Headquartered in Boston, USA, Analog Devices' has over 40 years presence in Ireland, our European base; with development centers in Limerick and Cork employing over 1200 people addressing our customers' toughest problems and enabling important new discoveries. Discoveries that help solve some of the most complex and impactful challenges of our time: from the detection of gravitational ripples in the fabric of space-time to helping farmers optimize how tomatoes grow (and taste). Innovations that stem from engineers with the passion and vision to stay ahead of what's possible.

Analog Devices is proud to support the BT Young Scientist & Technology Exhibition and view our support as added encouragement to students in 2nd level education to consider areas in Science and Technology when considering choices for 3rd level education. Irish Engineers working with Analog Devices hold the largest number of US patents in Ireland because we just love to invent and innovate! Our engineering team would like to welcome you to our stand in the Technology Hall where they will open your mind to some fun, interesting and downright weird applications of science and technology in everyday life. Come and test your skills and scientific understanding with some of the demos we have on display this year. Can you escape from the Laser Vault and avoid breaking the laser beams? What's new in our technology corner? Create your own worlds with an interactive topographical map. Don't fall down the well! Test your brain-power with our interactive Mind Boggle Quiz but most of all visit our stand to stimulate your interest in the amazing world of Science and Technology.



W26 TCD

Science at Trinity

We live in a scientific world, where science and technology have a growing impact in all aspects of our lives. A scientific education is your passport to that world. Our science courses span four

- TR060 Biological and Biomedical Sciences
- TR061 Chemical Sciences
- TR062 Geography and Geoscience
- TR063 Physical Sciences

Each has a customised curriculum for the first two years, leading to diverse degree subject options in third and fourth year, from Astrophysics to Zoology, and now including previous direct entry courses Human Genetics, Medicinal Chemistry and Nanoscience

Students can also take elective modules, for example in philosophy and ethics or science education and communication, as well as developing core skills in data handling and

Students will learn from scientists at the very forefront of their fields, and will carry out a capstone research project in the lab of one of our faculty members. The result is a rigorous and internationally recognised training in your chosen field, along with demonstrated transferable skills and attributes sought after in all careers.

Future-proof yourself! See more at: www.tcd.ie/Science.



W27 HEAnet

HEAnet is Ireland's National Education and Research Network, providing students and staff across all levels of education and research with high-speed resilient Internet connectivity. Our









THE WORLD OF SCIENCE & TECHNOLOGY

ICT services underpin education activity in Ireland, encompassing primary and post-primary schools, Universities, Institutes of Technology, other higher education institutions (HEIs) and research organisations – equating to 1.1 million people relying on the network each day for their learning and research needs. It is HEAnet that connects these Irish learners and researchers to the Internet, on-line education resources, and to fellow national education and research networks in Europe and the rest of the world.

For more details please visit our website: http://www.heanet.ie and follow us Twitter @ **HFAnet**



Sightsavers

W28 Sightsavers

Sightsavers is an international organisation working with partners in more than 30 countries to prevent and cure avoidable blindness and to support people with disabilities to live independently, 75% of blindness in the world is avoidable or curable and 89% of people who are blind live in developing countries.

Every year we prevent blindness and restore sight for millions of people. In developing countries, educational and occupational support for those who lose their sight is difficult to access. People with disabilities deserve the same opportunities as everyone else.

Sightsavers supports people who are visually impaired or have other disabilities to live independently, get an education and earn an income. We work with national governments, strengthening systems that tackle the problems at the root: the sorts of things most of us take for granted, like access to clean water, sanitation facilities and education. Sightsavers changes lives for the better, for the long term.

NOKIA Bell Labs

W29 NOKIA BELL LABS

Nokia Bell Labs, Nokia's research and innovation arm, creates the disruptive technologies that are shaping the way the world communicates and connects. With expertise in analytics, cloud, fixed, optics and wireless and by collaborating openly with the global innovation community, Nokia Bell Labs is seeking the technology solutions that will transform the connected world, enhancing the speed, capacity, efficiency and reliability of data, and the increasing automation and digitization of our lives and entire industries. For 90 years, scientific breakthroughs at Nokia Bell Labs have fundamentally transformed the Information Communications Technology (ICT) industry and its effect on humankind which have led to many distinguished awards including 8 Nobel Prizes.



W30 European Union

There's so much to see and do at the European Union stand this year!

Dr How Science Wows Needs You – Fun, interactive science with Dr. How's Science Wows; check out a wide range of science experiments from making mini fire extinguishers to inflating balloons and making your own slime. Hands-on, educational and imaginative science!

Want to learn about growing food in space? We invite you to discover the ground-breaking EDEN ISS project, which is developing food production for on-board the International Space Station (ISS) and for future human space exploration vehicles and planetary outposts. The stand includes a scaled down replica of the mission test lab.

Free resources about the European Union will be available for all visitors. Information Officers will be available to answer any queries you may have about the EU.

Contact us: The European Commission Representation in Ireland Tel: 01 6341 111 Website: www.eurireland.ie Facebook: @EUIreland Twitter: @eurireland



CoderDojo is an open source volunteer led movement of free coding clubs for young people aged 7-17. CoderDojo clubs (Dojos) run all over the world giving young people the opportunity to learn how to develop computer code, websites, apps, programs, games, digital media and to explore technology. In addition to technology skills, young people enjoy the

opportunity of being involved in a highly social community and experience a fun, collaborative and energetic learning environment. Learn more at coderdojo.com



Abbott

W32 Abbott

At Abbott, we're committed to helping people live their best possible life through the power of health. For more than 125 years, we've brought new products and technologies to the world -- in nutrition, diagnostics, medical devices and branded generic pharmaceuticals -- that create more possibilities for more people at all stages of life. Today, 94,000 of us are working to help people live not just longer, but better, in the more than 150 countries we serve.

Abbott serves the Irish market with a diverse range of health care products including diagnostics, medical devices and nutritionals products. In Ireland, Abbott employs more than 3,000 people across nine sites. We have six manufacturing facilities located in Clonmel, Cootehill, Donegal, Longford and Sligo and a third-party manufacturing management operation in Sligo. Abbott has commercial and support operations and shared services in Dublin. We have been operating in Ireland since 1946.



W33 The Maths Tutor.ie

Ireland's Leading Online Support System for JC & LC Maths!

Want to improve your maths? Need some help with exam preparation? We're here to help! We specialise in secondary level maths support, and we'll help you to get on top of it, one topic

We provide you with Video Lessons, Online Support and Exam Preparation, all specially designed for Irish secondary school students.

Now you can learn and get support from home or on the move, any time of the day, on your laptop, tablet or smartphone. We're there for you, 7 days a week, with Irish teachers supporting you every evening and at weekends.

Get a free trial with no obligation, and you can choose to upgrade to Full Membership at any time. We've had rave reviews from students, parents and teachers - now try it out for yourself!

SPECIAL OFFER! We're running a very special offer during the BT Young Scientist Exhibition, so make sure to call to our stand and say hello. Looking forward to seeing you there!

better examinations.ie

W34 BetterExaminations

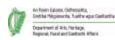
The 2nd Annual National Teacher Awards by BetterExaminations will take place on March 23rd, 2018.

The Awards shine a light and recognise the outstanding contribution that teachers make as role models in the school environment.

We are looking for students, teachers and parents to nominate the teachers that they feel contribute to school life inside and outside of the classroom.

The Awards are presented In partnership with The National Association of Principals and Deputy Principals.





W35 The Irish Architecture Foundation

The Irish Architecture Foundation is a vibrant and passionate not-for-profit organisation founded in 2005 that excites people about the cultural value of architecture. We truly believe that architecture transforms lives. It influences our everyday experience, from the interiors of our houses to our landscape, our cities and our towns. We believe that the impact of our awareness and education initiatives will create a better-built environment, and we do everything within our power to make that happen.

We are supported by the Arts Council, the Department of Culture, Heritage and the Gaeltacht (DCHG), the Office of Public Works and Dublin City Council. with additional project funding from the Department of Education and Skills. Our partnership with the BT Young Scientist and Technology Exhibition is made possible by the DCHG under the Government Policy on Architecture 2009-15.







W36 Deer Park

Deer Park is Irelands leading School Jumper manufacturer. For over 34 years they have being manufacturing the highest quality school knitwear. Apart from creating employment in Ireland, they ensure first-hand that only quality raw materials and standards of production are used. This gives you the longest lasting School Jumper on the Irish market. There is no comparison when it comes to generic imported jumpers. In fact unlike most of their competitors, Deer Park actually knit their jumpers in Ireland. This creates over 50 Irish Jobs in their local community in Kildare. Deer Park invites you to call to their stand and see firsthand the product collection they offer. They will explain the major differences between a true Irish quality brand and other imported jumpers. Also check out their range of Irish Made School Scarves not to mention that large range of School Jackets & Fleeces. Plus they have competitions & giveaways all week.

Facebook www.facebook.com/DeerParkSchoolwear or www.deerpark.ie



W37 The Department of Agriculture Food and The Marine

The mission of the Department of Agriculture, Food and the Marine is to lead the development of a competitive, sustainable and consumer-focused agri-food sector and a vibrant rural economy and society. 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.



W38 Coláiste Íde

Coláiste Íde an t-aon Mheán Scoil Chónaithe lán-Ghaelach 7 lá in Éirinn. Lonnaithe i gCiarraí, in eastáit stairiúil le hais Bhá an Daingin, cuireann Coláiste Íde sár chaighdeán iar-bhunoideachais ar fáil dos na daltaí a fhreastalaíonn air. Tá fócas láidir ag an gColáiste ar fhorbairt phearsanta na ndaltaí agus cinntítear go sroicheann gach dalta buaic a gcumas i dtimpeallacht a spreagann féinmhuinín, neamhspleáchas agus féinmheas. Tugann daltaí Choláiste Íde aghaidh ar an saol mar dhaoine neamhspleách, muiníneach, sár oilte agus ullamh lena n-áit a ghlacadh sa sochaí. Reáchtálfar lá oscailte ar an Satharn 10ú Marta 2018 óna 12i.n.-16.00i.n do iontrálacha 2018 & 2019 agus na blianta amach romhainn. Tá breis eolais ó 0669151211 agus www.colaisteide.com

Coláiste Íde is an all-Irish 7 day boarding school for girls situated in the Dingle Peninsula in County Kerry. The college is renowned for its high standard of post-Primary education. Dedicated teachers and staff along with daily supervised study ensure consistently high academic results. Coláiste Íde has a strong focus on personal development and each student reaches her potential in an environment that fosters self-confidence, independence and selfesteem. Students leave Coláiste Íde confident, capable, well-educated and well prepared to enter third level education and take their place in society. The college will hold an open day on Saturday the 10th of March 2018 from 12 noon -16.00 to facilitate academic years 2018 & 2019 and future years. Further information on 0669151211 or www.colaisteide.com



W39 StudyClix

Studyclix is Irelands largest study website and is used by over 150,000 students and more than 90% of teachers. Studyclix breaks all the junior and leaving cert subjects into topics and for each topic gives you past exam questions, marking schemes and videos and sample answers. Come visit us at the Studyclix stand to get discount vouchers and loads of other free stuff. Teachers should also come see us to find out how you can get set up for free and get Studyclix for your class.



W40 Cook Medical

Since 1963 Cook Medical has worked closely with physicians to develop technologies that

eliminate the need for open surgery. Today we are combining medical devices, biologic materials, and cellular therapies to help the world's healthcare systems deliver better outcomes more efficiently. We have always remained family owned so that we have the freedom to focus on what we care about: patients, our employees, and our communities.

Find out more at http://www.cookmedical.eu and for the latest news follow us on Twitter, Facebook, Instagram and LinkedIn.



W41 Health Products Regulatory Authority (HPRA)

We are the Health Products Regulatory Authority(HPRA) and our role is to protect and enhance public and animal health by regulating medicines, medical devices and other health products. We are a state agency that puts the health of people and animals at the core of everything we do. We use our scientific and clinical expertise to review and monitor health products available in Ireland or exported abroad. Our aim is to make sure that the health products we regulate are as safe as possible and do what they are intended to do. Our broad remit includes the regulation of: Human medicines; Veterinary medicines; Clinical trials; Medical devices; Controlled drugs; Blood and blood components; Tissues and cells; Organs intended for transplantation; The protection of animals used for scientific purposes; and Cosmetic products.



An Phríomh-Oifig Staidrimh Central Statistics Office

W42 The Central Statistics Office

The Central Statistics Office (CSO) is responsible for the collection and dissemination of official statistics in Ireland. We measure all of the country's activities from Births, Deaths and Marriages, to where and how people live and travel, how our Government collects and spends money and the activities of our businesses and the wider economy. We publish our figures (data) on our website, www.cso.ie, to help people make sense of what's happening in our country. The CSO has a number of projects to encourage young people to use our products our John Hooper poster competition, the Apps4gaps app design competition and our annual school survey - CensusAtSchool. The CSO has partnered with the BTYSTE to sponsor an award for the best use of official statistics in a project presented at the competition. Visit the CSO stand and talk to us about the many innovative services that the CSO has to offer!



W43 RTÉ

Explore RTÉ at the BT Young Scientist & Technology Exhibition 2018!

Join us for an exciting line-up of activity across television, radio and digital services. There promises to be lots of lights, cameras and action as RTÉ broadcasts programmes from the stand, including live RTÉ Weather bulletins!

RTÉ 2FM, RTÉ Raidió na Gaeltachta and RTÉ Pulse will also be getting in on the action, broadcasting live from the radio studio. Visitors can try their hand at presenting the weather forecast and you might even get the chance to interview your favourite presenter! Be sure to come along and enjoy lots of music and entertainment.

Check-in at the RTÉ stand and keep up-to-date with RTÉ on Twitter, Facebook and Instagram.



W44 BT

We use the power of communications to make a better world. We're passionate about technology. Come find us and hear all about the innovative history of BT. from where we started in 1896, right up to our merger with EE! We'll show you where the internet comes from; from the network to your home, and what the future holds. Our 'Connected Home' section shows the amazingly clever ways that internet can be used, where we will showcase Virtual Reality, using BT Sport and global meetings in our demos.

We're running a 'Twitter Selfie' competition, so tweet us with your selfie at the BT stand to be in with a chance to win a Surprise Prize (don't forget #BTYSTE!) – the most creative wins!



















E1: The Geological Society of Ireland

Underground Wonder

What's underneath Ireland's sea bed? How do I know if I've struck gold?

What makes the ground shake during an earthquake? Where is the oil and gas offshore Ireland?

The Underground Wonder stand is here to help you discover the world beneath our feet. Let us show you the tools and techniques that Ireland's geoscientists use to investigate the secrets that lie under the earth's surface and how they affect our

Underground Wonder is brought to you by the Geological Survey Ireland and the Petroleum Affairs Division, both divisions of the Department of Communications, Climate Action and Environment. We are proudly joined by our partners from the Dublin Institute for Advanced Studies and the National Museum of Ireland.



E2: An Garda Siochana

The Garda Road Safety Unit

The Road Safety Unit's overall aim is the reduction of road deaths and serious injuries and the improvement of road safety generally. The Unit, based in the Garda National Roads Policing Bureau and established in 2001, delivers presentations on Road Safety to a number of groups in the community including:-

• Schools and colleges • Youth Clubs • Local organisations • Industry groups

The Unit's presentation, It won't happen to me, is mainly delivered to Transition Year students but can be adapted to cater for all audiences. It is a stand alone road safey presentation covering all the road safety ingredients including speed, alcohol, seatbelts, fatigue, distractions and consequences. It is delivered in a shock/ humorous manner and is designed to change attitudes and behaviour.

The Unit also provides Road safety information in the "Traffic Watch" segment of the Crimecall programme and at major public exhibitions such as The Young Scientist Exhibition, The National Ploughing Championships and a variety of car and motorcycle shows.



E3: The Irish Defence Forces

Come and visit the Defence forces stand to find out about all The Roles of the Defence Forces such as:

- to defend the State against armed aggression; this being a contingency, preparations for its implementation will depend on an ongoing Government assessment of the security and defence environment;
- to aid the civil power (meaning in practice to assist, when requested, the Garda Síochána, who have primary responsibility for law and order, including the protection of the internal security of the State);
- to participate in multinational peace support, crisis management and humanitarian relief operations in support the United Nations and under UN mandate including regional security missions authorised by the UN;
- to provide fishery protection service in accordance with the State's obligations as a member of the EU; and, to carry out such other duties as may be assigned to them from time to time, e.g. search and rescue, air ambulance service, Ministerial air transport service, assistance on the occasion of natural or other disasters, assistance in connection with the maintenance of essential services, assistance in combating oil pollution at sea.

Check us out at www.military.ie, facebook.com/IrishDefenceForcesRecruitment facebook.com/IrishDefenceForces



E4: Dublin Zoo

Dublin Zoo.... Learn something new!

Dublin Zoo, home to some 400 animals, is an environment where education and conservation combine for an unforgettable visitor experience. Dublin Zoo's Discovery and Learning Department offers a range of exciting, interactive and structured educational programmes, workshops and resources, tailored to meet the specific needs of groups.

Our school programmes and primary outreach sessions are designed to support the national curriculum while capturing the curiosity of your students in an immersive

Meet our Discovery and Learning Team at Stand No: E4 for lots of fun and learning including bio facts, details about careers with animals and the chance to enter an exciting competition to win a class trip to Dublin Zoo!

For more information on our education programmes call (01) 474 8932, email education@dublinzoo.ie or visit www.dublinzoo.ie



E5: The Environmental Protection Agency

The Environmental Protection Agency is at the front line of environmental protection and policing. We ensure that Ireland's environment is protected from the harmful effects of radiation and pollution. We also monitor changes in environmental trends to detect early warning signs of neglect or deterioration.

We have a wide range of functions to protect the environment, and our primary responsibilities include:

- Environmental licensing
- Enforcement of environmental law
- · Environmental planning, education and guidance
- Monitoring, analysing and reporting on the environment
- Regulating Ireland's greenhouse gas emissions
- · Environmental research development
- · Strategic environmental assessment
- Waste management
- Radiological protection

Part of our role is to monitor water quality of rivers and lakes in Ireland. Visit our stand to find out more about our hovercraft helps us to complete this role. Check out the 'water bugs display' and learn what these can tell us about Ireland's water quality. Also, learn more about 'The Story of Your Stuff' video competition, launching in 2018.



E6: Tayto Park

Tayto Park offers a variety of packages especially design for School students. Choose from a fun-day all-inclusive package or one of our educational sessions such as ecology, genetics, biodiversity, conservation, business and more! Tayto Park is the only destination where you can combine thrilling park attractions a unique zoo experience and learning outside the classroom in one location. Contact us today! education@taytopark.ie



E7: Petroleum Infrastructure Programme

The Petroleum Infrastructure Programme is a government/industry/academic research initiative that reduces risk in petroleum exploration and development activities offshore Ireland by developing Irish expertise in exploration; funding petroleum exploration research in Irish universities and other third level





institutions; and encouraging collaboration between the petroleum exploration industry and Irish researchers.

The objective of our participation in the BT Young Scientist and Technology Exhibition is to promote the exciting activities and career opportunities in earth science, in particular in earth science research and the petroleum industry.

At our stand you will find rock samples recovered from 10,000ft below the seabed offshore Ireland; teaching notes and student exercises; seismic sections of Ireland's offshore geology; plate tectonic animations and inspiration for student projects.

Young Irish graduates will be on the stand to explain why they studied geology and describe a typical day in the life of an exploration geologist.



E8: Young Scientists Tanzania

Young Scientists Tanzania (YST) is a unique event in East Africa, providing a platform for young people from across Tanzania to demonstrate their innovation and showcase their scientific talents. Schools participating in YST are supported through an extensive science outreach program. Teachers and students receive mentoring and practical advice on research and scientific methodologies. The centre-piece of YST is an annual exhibition which is modeled on the internationally acclaimed BT Young Scientist and Technology Exhibition in Ireland.



E9: Gorta Self Help Africa

Gorta-Self Help Africa is one of Ireland's leading international development organisations. Working through agriculture, the organisation is supporting communities across Africa to grow more and earn more, and eradicate poverty in their lives. Gorta-Self Help Africa has a Development Education programme supporting secondary schools with workshops and other activities that are designed to engage and interest young people, and mobilise them as responsible global citizens. For more than a decade, Gorta-Self Help Africa has presented the Irish Aid sponsored 'Science for Development Award' at the BT Young Scientist and Technology Exhibition. The award seeks to encourage young scientists to look at the challenges and come up with solutions that address a challenge faced by people in the Developing World. The winners receive an Irish Aid sponsored travel bursary, to take part in a Gorta-Self Help Africa schools study visit to Africa.



E10: Irish Aid

Irish Aid is the overseas aid programme of the Irish Government, and a leader in the fight against world hunger and poverty. Come and visit us this year in the EcoZone to view our displays, learn about our partner countries and find out more about the Sustainable Development Goals, the world's vision for a better future. Visitors to the Irish Aid stand can win prizes by taking part in our quiz, and get information about entering our annual Our World Irish Aid Awards, our Africa Day writing competition, and the Science for Development Award. We will be running African Drumming workshops and also have information for teachers on how school groups can follow up on what they learn and get involved with Irish Aid.



E11: Order of Malta

The Order of Malta Ambulance Corps is a voluntary ambulance and first aid organisation with over 4,000 volunteers involved in over 80 units across the Island of Ireland. We are a major provider of excellence in first aid training, ambulance cover at large events, patient transport, community care, nursing services and assistance to other charities in most of the major cities and towns across the island of Ireland. Caring for the community The Ambulance Corps is committed to providing caring services in a Christian, caring and non-discriminatory manner, to 'Our Lords, the Poor and the Sick'. Order of Malta Ambulance Corps, providing excellent standards of first aid training, community care facilities and services, delivered by people who care, with quality assured standards of training. We operate over 165 ambulances, rapid response 4's, mobile accident and emergency suites, support vehicles, medical bikes and command centres. Our headquarters also houses a command and control centre to coordinate vehicles and personnel

in the event of a major incident. We are an entirely voluntary organisation and we receive no state funding. Should you have any queries or would be interested in joining us, come along and visit us at our stand.



E12: 112 ECAS

112, the pan European emergency number to dial across 35 countries when you need an ambulance, fire brigade, police or coastguard.

With the increased frequency of travel across the EU, millions of people could be faced with this problem. Fortunately, there is no need to look up and remember the emergency numbers for each EU country you are visiting. Just remember 112!

112 is your pan-European number to access Emergency Services whilst travelling

In Ireland, 999 and 112 exist equally and run in parallel. Regardless of which number you call in Ireland, the call will be handled in the same manner.

112 is accessible in the following EU countries:

Albania, Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Turkey and United Kingdom.



E13: The National Parks & Wildlife Service

The National Parks and Wildlife Service has responsibility for the protection and conservation of Ireland's natural heritage and biodiversity at national government level. The NPWS stand in the EcoZone will have exhibits, information and other materials available plus a chance to meet with our staff to discuss activities and school programmes available within the NPWS.

Our Education & Visitor Centres

The NPWS operate a number of Education & Visitor Centres around the country offering various activities and learning opportunities aimed at teachers and students alike. Our Education Officers have designed a range of school programmes aimed at promoting awareness of, knowledge and an appreciation of our native flora, fauna and their habitats our biodiversity. Further information is available on http://www.npws.ie



The Road Safety Authority

Our mission

The aim of the Road Safety Authority is to save lives and prevent injuries by reducing the number and severity of collisions on the road. This is reflected in our maxim, Working to Save Lives.

Providing a safe environment for all road users and promoting the efficient use of our road network are our twin aims.

- The RSA works to improve road safety in Ireland by:
- Developing and implementing information and education campaigns to increase awareness of road safety and promote safer driving
- Improving vehicle standards
- Establishing and monitoring a standard for driver instruction
- Overseeing the system of driver licensing and undertaking certain enforcement activities
- Working with stakeholders to ensure a co-ordinated response and ensure our collective resources are used wisely and efficiently
- Undertaking accident and road safety research in order to develop measures and recommendations to improve road safety
- · Advising the Minister.















OVER FIFTY YEAR



1965 John Monahan



1966 Máire Caitríona Ní Dhomhnaill / Mary Finn



1967 Walter Hayes R.I.P.



1968 George Andrew Reynolds



1969 Luke Drury



1975 Noel Boyle



1976 Mary Kelly-Quinn



1977 Micheal Og O'Briain



1978 Donald P McDonnell



1979 Jervis Good



1980 Karen Ruddock



1987 Emma Donnellan, Henry Byrne



1988 Siobhan Lanigan O'Keeffe



1989 Grace O'Connor, Sinead Finn



1990 Anna Minchin-Dalton



1991 Barry O'Doherty, **Daniel Dundas**



1992 Elizabeth Dowling, Jean Byrne R.I.P.



1999 Sarah Flannery



2000 **Thomas Gernon**



2001 Shane Browne, Peter Taylor, Michael O'Toole



2002 **David Michael** O'Doherty



2003 Adnan Osmani



2009 John D. O'Callaghan, Liam McCarthy



2010 Richard O'Shea



2011 Alexander Amini



2012 Eric Doyle, Mark Kelly



2013 Ciara Judge, Emer Hickey, Sophie Healy-Thow

S OF INNOVATION





1970 Maria Edgeworth



1971 **Peter Short**



1972 Seán Mac Fheorais



1973 Tadgh Begley



Richard Elliott



1981 **Catherine Conlon**



1982 Martynn Sheehan



1983 William Murphy, Gareth Clarke, Turan Mirza



1984 Eoin Walsh



1985 Ronan McNulty



1986 Breda Maquire, Niamh Mulvaney



1993 Donal Keane, Rodger Toner



1994 Jane Feehan



1995 Brian Fitzpatrick, **Shane Markey**



1996 Elsie O'Sullivan, Rowena Mooney, Patricia Lyle



1997 Ciara McGoldrick, Emma McQuillan, Fiona Fraser



1998 Raphael Hurley



2004 Ronan Larkin



2005 **Patrick Collison**



2006 Aisling Judge



2007 Abdusalam Abubakar



2008 **Emer Jones**



2014 **Paul Clarke**



2015 Ian O'Sullivan, Eimear Murphy



2016 Diana Bura, Maria Louise Fufezan



2017 **Shane Curran**



2018 Winner announced















About the Fair

The RDS Primary Science Fair showcases STEM investigations undertaken by 4th-6th class and Key Stage 2 primary school-aged children across Ireland. With a core focus on children's skills development, it brings together teachers, parents and students to showcase class projects, share experiences and learn from each other.

Why the RDS?

The RDS is Ireland's Philanthropic Society. Since 1731 we have worked to see Ireland thrive culturally and economically. This year we will give back over €2 million through our philanthropic work programme that spans the areas of science, the arts, agriculture and enterprise. Our science education programme is a vital way in which we fulfil our mission today and invest in the Ireland of tomorrow. The RDS Primary Science Fair is a key project within our science and technology work programme. It is underpinned by the RDS STEM Learning project, which aims to support primary school teachers to integrate science, technology, engineering and mathematics into their classroom practice.

RDS Primary Science Fair RDS Primary Science Fair Limerick @ MIC Belfast

January 18 – 20, 2018 June 6 – 7, 2018

For further information

please visit www.rds.ie/primarysciencefair primarysciencefair@rds.ie email +353 1 2407990 (ROI) or telephone

0345 2661897 (NI)



Dublin Thursday 11th January

What makes the best compost?

Balbriggan ETNS, Balbriggan, Co. Dublin

Does text colour affect readability?

Ballinamere NS, Tullamore, Co. Offaly

Can 10 minutes exercise a day improve our fitness and general health?

Bunscoil Loreto, Gorey, Co. Wexford

What is going on with light, shadow and colour?

Catherine McAuley NS, Baggot Street Lower, Dublin 2

What type of water solution does a plant grow best in?

Clologue NS, Camolin, Co. Wexford

Is Artificial Insemination the new 'bull' in Irish agriculture today?

Kilbride NS, Trim, Co. Meath

Why do some plants grow faster than others?

Monkstown ETNS, Dun Laoghaire, Co. Dublin

Can you move slime without touching it?

New Court Special School, Bray, Co. Wicklow

The '5 second rule' – Fact or Fiction?

Our Lady Immaculate SNS, Darndale, Dublin 17

Plastic: Do we need to use so much?

Our Lady Queen of Apostles NS, Clondalkin, Dublin 22

Can we lower our recovery time after exercise in just one month?

Réalt na Mara GNS, Mornington, Co. Meath

Is Offaly being faithful to the ecosystems which exist in our bogs?

Scoil Mhuire Naofa, Rhode, Co. Offaly

Does the salt level in our brackish lake vary much over time?

Scoil Mhuire, Our Lady's Island, Co. Wexford

What are the benefits of growing plants organically?

Scoil Naomh Bríd, Redhills, Co. Cavan

Can a parachute save an egg from a two-storey fall?

Scoil Naomh Buithe, Dunleer, Co. Louth

Belly-Brain Talk: Which Food is Best?

Scoil Naomh Fionán, Belgooly, Co. Cork

Mol an Yoga agus tiocfaidh sí?

St Aidan's NS, Kilmanagh, Co. Kilkenny

Can a skyscraper fall for a tremor?

St Brigid's GNS, Killester, Dublin 5

Does eye colour affect eyesight?

St Brigid's NS, Blessington, Co. Wicklow

How does a thermos flask keep our soup warm?

St Brigid's PS, Kildare Town, Co. Kildare

What place in our school has the most germs?

St Catherine's SGS, Cabra, Dublin 7

Microbes in the common school classroom - How clean is your classroom?

St Kevin's GNS, Kilnamanagh, Dublin 24

Parachutes - Does size matter?

St Kevin's NS, Gorey, Co. Wexford

Will children improve their table's test scores after using digital games?

St Louis SPS, Rathmines, Dublin 6

What effect has the bypass on the businesses of a tourist town?

St Macartan's NS, Bundoran, Co. Donegal

Can music change my mood?

St Oliver Plunkett School, Malahide, Co. Dublin

Does regular physical activity improve academic performance in kids?

St Paul's Primary School, North Brunswick Street, Dublin 7

Is it possible to paint a rainbow from natural dyes and paints?

St Saviour's NS, Rathdrum, Co. Wicklow

Does biodegradable packaging actually decompose?

St Stephen's NS, Navan, Co. Meath

What is the optimum surface for garden snails to travel?

The Heath NS, Portlaoise, Co. Laois

Dublin Friday 12th January

Carnival games: Is success determined by skill or by science?

Bunscoil Bhríde, Rathangan, Co. Kildare

What are the effects of Balleally landfill on our local environment?

Corduff NS, Lusk, Co. Dublin

Do fidgeting children benefit from the use of fidget spinners?

Gaelscoil an Choillín, Mullingar, Co. Westmeath

Na tosca a théann i gcion ar chaitheamh liathróide

Gaelscoil Chnoc Liamhna, Delaford Avenue, Dublin 16

Taithí a dhéanann máistreacht - fíor nó bréagach?

Gaelscoil na Ríthe, Domhnach Seachnaill, Co. Meath

What particular colours influence our moods in Glasnevin NS?

Glasnevin NS, Glasnevin, Dublin 9

Can we get ordinary balloons to lift us off the ground?

Glebe NS, Wicklow Town, Co. Wicklow

Does regular exercise really make us fitter?

Kilkenny School Project, Waterford Road, Co. Kilkenny

Climate Change: Can we design and build an effective flood defence?

Mary, Help of Christians GNS, Navan Road, Dublin 7

What fizzy drinks are best at cleaning toilets and why?

Naas Community NS, Craddockstown, Co. Kildare

What material makes the strongest bridge?

Ranelagh Multidenominational School, Ranelagh, Dublin 6

Is the water coming from our taps safe to drink?

Scoil Eoin Baiste, Ballyhogue, Co. Wexford

Rhodo-runners: Can we call a halt to their gallop? Scoil Mhuire Fatima, Timahoe, Co. Laois

An bhfuil an córas iolrúcháin ársa éigipteach ábhartha sa lá inniu ann?

Conas é sin?

Scoil na Leanaí, Dún Garbhán, Co. Waterford

Is our local river a source of safe drinking water?

Skeoughvosteen NS, Skeoghvosteen, Co. Kilkenny

What is the effect of pH on the browning of apples?

SN Baile an Phiarsaigh, Drinagh, Co. Wexford



Dublin Friday 12th January (continued)

Is yawning contagious?

SN Colmcill Naofa, Moone, Co. Kildare

Is playground behaviour influenced by the weather?

St Anne's NS, Shankill, Dublin 18

Scrambled Science: How do you keep all your eggs in one basket?

St Colman's NS, Ballindaggin, Co. Wexford

Which nail polish stains nails the most?

St Cremin's NS, Multyfarnham, Co. Westmeath

How do we enhance and protect biodiversity in our school grounds?

St Gerard's JS, Bray, Co. Wicklow

Can citrus fruit power a small light bulb?

St Joseph's NS, Longford, Co. Longford

How do human senses of sight and taste differ from animals?

St Kevin's NS, Greystones, Co. Wicklow

Groovy cows - Does mu-oo-sic make the milk flow?

St Leonard's NS, Dunnamaggin, Co. Kilkenny

Can we taste the difference between Armagh tap water and bottled

St Malachy's PS, Chapel Lane, Co. Armagh

Dublin Saturday 13th January

How clean are your hands?

Balrothery NS, Balbriggan, Co. Dublin

What substances, when mixed together, will create the best foam?

Belgrove SBS, Clontarf, Dublin 3

When does the grass grow greener, with acids or bases?

Castle Park School, Dalkey, Co. Dublin

What effect does music have on your memory? Does it affect

Clooneyquinn NS, Castlerea, Co. Roscommon

Why is cows' milk the most popular type of milk product?

Greystones ETNS, Greystones, Co. Wicklow

Can we design a 'Hoover Car' that cleans as it drives?

Griffith Barracks Multidenominational NS, Clogher Road, Dublin 12

Garden Birds: Which species is found in the most gardens in Leitrim?

Hunt NS, Mohill, Co. Leitrim

Which exercise improves our physical and mental wellbeing the best?

John Scottus NS, Ballsbridge, Dublin 4

Which fruit or vegetable makes the best battery?

Kilcommon NS, Tinahely, Co. Wicklow

What if the Earth stopped spinning?

Kill O'the Grange NS, Deansgrange, Co. Dublin

How can we launch our teacher into space?

Moyderwell Mercy PS, Moyderwell, Co. Kerry

I can't believe my eyes - why shouldn't !?

North Bay ETNS, Kilbarrack, Dublin 3

Why do basketballs bounce?

Presentation PS, Portarlington, Co. Laois

Can you build wind turbines from rubbish to power light bulbs?

Primrose Hill NS, Celbridge, Co. Kildare

Quiet Please! Does background noise really affect our hand-eye

coordination and concentration?

Scoil Choilm CNS, Clonsilla, Dublin 15

Why do onions make us cry? Can we investigate ways to prevent the

Scoil Mhuire Naofa, Carrigallen, Co. Leitrim

Stop waiting! Why aren't we donating?

Scoil Mobhí, Glasnevin, Dublin 9

What is the impact of ocean acidification on Kinsale marine life?

Scoil Naomh Eltin, Kinsale, Co. Cork

Is an animal's colouration effective in deterring predators from obtaining

St Andrew's College, Blackrock, Co. Dublin

Why do commuters travel as single occupants in cars during rush hour?

St Columba's NS, North Strand, Dublin 3

Can home-made glue be as strong as factory made glue?

St Fintan's NS, Sutton, Dublin 13

Food Waste - Can it be harmful? How can we reduce food waste?

St Laurence's NS, Greystones, Co. Wicklow

Why does some people's hair have more static electricity?

St Mary's and St Gerard's, Enniskerry, Co. Wicklow

What role will robotics play in our lives?

St Mary's NS, Raharney, Co. Westmeath

How do cranes work and can we build a model crane?

St Molaga's SNS, Balbriggan, Co. Dublin

Does children's screen time really impact their ability to learn in school?

St Patrick's BNS, Drumcondra, Dublin 9

Does eye colour affect our ability to identify colours in low light?

St Patrick's NS, Johnstown, Co. Wicklow

Can we use air pressure to help us tidy our school grounds?

St Patrick's PS, Mullanaskea, Co. Fermanagh

Why do we need bees?

Star of the Sea BNS, Sandymount, Dublin 4

A filtration investigation: Can we clean that rainwater?

Wicklow Montessori PS, Wicklow Town, Co. Wicklow



The RDS invites you to become a Member

of Ireland's Philanthropic Society

Working across the areas of science, arts, agriculture and business to see Ireland thrive culturally and economically.

Membership: €380 per year

Enjoy the many benefits of RDS Membership:

- Access to our elegant Members' Club
- Use of reciprocal clubs worldwide
- Engagement with RDS philanthropic work programme
- · Superb catering & free wifi
- Use of the unique and tranquil space of the RDS Library
- Busy Members' social and cultural calendar
- Free parking for you and your guests
- Complimentary 5 day entry to the Dublin Horse Show
- Access to business meeting rooms
 networking events
- · Membership of the RDS Bridge Club



For further details and to register your interest please contact:

Catherine Jordan e: catherine@rds.ie t: 01 240 7280



THE BT YOUNG SCIENTIST BUSINESS BOOTCAMP



Driven by innovation, delivered by BT

BT's 9th Business Bootcamp Programme for students

A number of the exhibiting intermediate and senior students from the 2018 BT Young Scientist & Technology Exhibition will be invited to take part in a BT Young Scientist Business Bootcamp in February 2018 where they will experience the world of technology commercialisation and entrepreneurship.

We have created this programme to encourage further innovation by our young scientists and provide them with commercialisation skills to carry forward into their careers and lives. The bootcamp will be held at University College Dublin (UCD).

Expanding Business Leadership

As an extension of the BT Young Scientist & Technology Exhibition, the BT Young Scientist Business Bootcamp has enabled BT to take a national leadership role in economic development. BT is collaborating with key private and public sector organisations to create an opportunity to mentor the next generation of Irish innovators and entrepreneurs.

Igniting Entrepreneurial Spirit

We at BT believe that the BT Young Scientist Business Bootcamp helps to bridge the gap between the worlds of education and business and mentor the next generation of young innovators and entrepreneurs.







Perrigo Company plc, a leading global healthcare company, delivers value to its customers and consumers by providing *Quality Affordable Healthcare Products™*. Founded in 1887 as a packager of home remedies, Perrigo has built a unique business model that is best described as the convergence of a fast-moving consumer goods company, a high-quality pharmaceutical manufacturing organization and a world-class supply chain network. Perrigo is the world's largest manufacturer of over-the-counter healthcare products and supplier of infant formulas for the store brand market. The Company also is a leading provider of branded OTC products throughout Europe and the U.S., as well as a leading producer of "extended topical" prescription drugs. Perrigo, headquartered in Ireland, sells its products primarily in North America and Europe, as well as in other markets, including Australia, Israel and China.



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(V)	BT ARENA	WORLD OF ROBOTS	CONCERT HALL	FOYER
09:45				
10:00	The Real Science of the Circus			Drumming Workshop
10:15			A journey through Space and Time 3D	
10:30		World of Robots		
10:45	Mindblowing Magic of Science			
11:00			A incompany the way all Connection	Drumming Workshop
11:15			A journey through Space and Time 3D	
11:30	Ministry of Science	World of Robots		
11:45				
12:00	Mindblowing Magic		A journay through Chase	Drumming Workshop
12:15	of Science		A journey through Space and Time 3D	
12:30		World of Robots		
12:45				
13:00	Ministry of Science		A journey through Space	
13:15		World of Robots	and Time 3D	
13:30	Mindblowing Magic			
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14:00		World of Robots	A journay through Space	Drumming Workshop
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14:45		World of Robots		
15:00				Drumming Workshop
15:15	Ministry of Science		Girl in the Galaxy	
15:30				
15:45		World of Robots		
16:00				Drumming Workshop
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16:00				Drumming Workshop	
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(V.)	BT ARENA	WORLD OF ROBOTS	CONCERT HALL	CLYDE ROOM FOYER	
09:45	The Real Science of the Circus				
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DUBLIN **EUROPEAN UNION CONTEST FOR** YOUNG **SCIENTISTS** 14-19 SEPTEMBER 000









BT in Ireland

BT is one of the world's leading providers of communications services and solutions, serving customers in 180 countries. Every day, we touch the lives of thousands of people on the island of Ireland, helping them communicate, collaborate, and be entertained and informed.

Science and technology are at the heart of our business

We're leading the industry in communications innovation, using technology to transform the way businesses operate. With more than 14,000 scientists and technologists around the world, we've invested more than €3.8 billion in research and development in the last five years.

Republic of Ireland

BT is trusted to help multi-national corporations and indigenous exporters to solve complex communications problems on a global scale.

We process millions of transactions through our state-of-the-art data centres, develop agile contact centres, pre-empt and solve emerging cyber threats, build networks for other communications companies and more. We also serve major public sector organisations, operating the 999/112 emergency call answering service on behalf of the Irish state.

Northern Ireland

BT is one of the largest private sector employers in the province. We are leading the way in delivering exciting new services to our customers – everything from TV to high speed fibre broadband to IT services for some of the largest organisations in the market.

BT Sport

In 2013 we launched our very own TV sports channels, covering soccer, rugby, UFC, motorsports and more. Since launching, the

broadcaster has gone from strength to strength winning exclusive rights to top sporting fixtures such as the Champions League and Europa League, and has just announced that it is to become the home of the European Rugby Champions Cup and the European Rugby Challenge Cup in the UK and Ireland. Irish rugby legend Brian O'Driscoll is just one of many legendary sporting figures now presenting on the station.

BT in the Community

Our purpose is to use the power of communications to make a better world, by connecting people and society, protecting the environment, and using our skills and resources to benefit good causes throughout the world.

Last year, BT Ireland employees spent over 8,000 hours volunteering across the island of Ireland. Our annual BT Shop for Change campaign has raised almost €500,000 for the Irish Cancer Society and Marie Curie Northern Ireland over the last five years.

We are committed to supporting the local communities in which we live and work through education, digital inclusion, charity fundraising and volunteering. That's why we're proud to have organised the BT Young Scientist & Technology Exhibition for 18 years, helping to nurture young talent and entrepreneurship in Ireland.

Find out more at: **btireland.com** and **btyoungscientist.com**

