



SCIENCE BLAST

DELIVERED BY
THE RDS

Exhibition Booklet
Dublin
March 6–7 2019

#esbscienceblast
esbscienceblast.com

ESB Science Blast is a non-competitive education programme where students work as a class to investigate the science behind a simple question and then showcase their work at a national event. Science is everywhere, so every 3rd-6th class in Ireland is encouraged to think, wonder, investigate, create, design, explore and learn new skills.



Michael Duffy, RDS Chief Executive

The RDS is delighted to welcome you to ESB Science Blast!

This amazing way of engaging with science in the primary school classroom has been developed and delivered by the RDS and this year we are delighted to welcome ESB as title sponsors.

Science skills are skills for life. Through their participation in ESB Science Blast we want students to wonder and investigate, learn and think. We know that participation at this young age can have significant benefits, from an individual level right through to the entire school community. And that benefit goes beyond the science curriculum. Students' literacy, numeracy and confidence all improve through participation in ESB Science Blast.

Every class investigation that you see will have a question at the heart of it. Questions are amazing things. They can lead to us to incredible possibilities. During your visit I would encourage you to dive in and put questions to the students, see what they have found and what they have learned. Your interest in their work will make a tangible difference to their experience and may even open up some new possibilities for you.

Pat O'Doherty, ESB Chief Executive

On behalf of ESB, I am delighted to welcome you to the first ESB Science Blast, delivered by the RDS.

Our new partnership with the RDS builds on a shared commitment to promote STEAM (science, technology, engineering, arts and maths) education and learning, creating opportunities not just for the children who participate directly, but for all of society.

Participation in initiatives like ESB Science Blast helps to equip children with the crucial 21st century skills of creativity, critical thinking, communication and collaboration, supporting them not only to become creative and innovative problem solvers, but also active and engaged citizens, capable of making informed choices to tackle climate change and other global challenges.

255 schools will participate in ESB Science Blast in Dublin this week, with many more taking part in Limerick and Belfast later in the year. This would not be possible without the dedication of schools from across all four provinces. We are especially grateful to the teachers involved, and hope that the experience of taking part has helped to make science fun, stimulating, and engaging for your students.

Simonscourt will be buzzing with positive energy and excitement this week; a wonderful reminder of the potential of this young generation to create a brighter future for all.

Investigation Framework

Have you ever wondered how boats stay afloat? What are the best ingredients to make slime? Or if people with longer legs run faster? Start your class thinking about questions that they can investigate and use the ESB Science Blast Investigation Framework to help structure your ideas.

1 What is your class question?

What is your class going to investigate? This should include phrases like 'How many?' or 'What happens if?' or 'Why does?'

6 How can you piece all your information together to answer your class question?

This could include:

- Did what you expect to happen, happen?
- Did anything unexpected happen and can you explain why?
- If repeating your investigation, would you do anything differently?
- Can you relate your findings to a real life situation?
- Can you think of any other questions you could investigate?

5

2

What is your class prediction?

This should include a prediction or estimation based on what the students know or their previous experience. What do they think might happen? Or what do they think they will find?

3

How will your class gather evidence to answer the question?

This should include:

- Observing
- Counting, timing or measuring
- Changing something to see what happens
- Building, coding, designing or making something to use (e.g. a tool, model or ICT solution)
- Recording



4

How will your class organise information?

This could include:

- Drawing a chart or plotting a graph
- Identifying patterns
- Classifying things or putting them in order

What do your findings mean?

This could include:

- What can you tell from the graphs or charts or other information?
- What might cause any of the patterns that you found?

Wednesday March 6th

Stand

S N Breandan Naofa, Loughrea, Co. Galway

How much CO² does our school produce every year?

1

Castle Park School, Dalkey, Co. Dublin

Kid's car seats: Do we really need them?

2

Castleblayney Convent Snr GNS, Castleblayney, Co. Monaghan

Do fruit and vegetables have enough energy to power a small Christmas tree?

3

St Oliver Plunkett NS, Malahide, Co. Dublin

Coca Cola to Cola Pop: Can you taste the difference between branded and non-branded products?

4

Bunscoil Loreto, Gorey, Co. Wexford

After germination, what is the best soil and fertiliser combination for plant growth?

5

Bunscoil Loreto, Gorey, Co. Wexford

Does use of social media affect our personality and lives in general?

6

St Brigids Convent NS, Killester, Dublin 5

Does the surface area of a parachute affect its performance?

7

St. Peter's PS, Bray, Co. Wicklow

Swings, slides and STEM: Why does STEM play such an important part in creating the 'best' playground?

8

St Vincent De Pauls GNS, Marino, Dublin 9

Take a trip down memory lane – what can we do to improve our memory?

9

S N Coill Dubh, Naas, Co. Kildare

Does texting impact our driving?

10

Presentation PS, Halston St., Dublin 7

What effect do certain beverages have on our teeth?

11

Scoil Naomh Fiachra Clontubrid, Freshford, Co. Kilkenny

Does a person's level of physical fitness influence their reaction time?

12

Sacred Heart NS, Clondalkin, Dublin 22

Could we create a more effective way of cleaning our whiteboard?

13

Griffith Barracks MDS, South Circular Road, Dublin 8

Does the colour of food affect our perception of its taste?

14

All Saints NS, Carnew, Co. Wicklow

What is Gravity?

15

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|--|----|
| S N Cronain Naofa, Roscrea, Co. Tipperary Does a digital detox make a difference to our concentration and wellbeing? | 16 |
| S N Peadar Agus Pol, Ballon, Co. Carlow Train your brain: Can exercise improve memory? | 17 |
| S N Peadar Agus Pol, Ballon, Co. Carlow Are you faster than a calculator? | 18 |
| Sacred Heart NS, Clondalkin, Dublin 22 Food Myth Investigation: Are apples and carrots really as good for our bodies as we are told? | 19 |
| Sacred Heart NS, Clondalkin, Dublin 22 I spy with my little eye: Does the colour of your eyes affect your sight? | 20 |
| Clooniquin NS, Caislean Riabhach, Co. Ros Comain Are childproof containers really childproof? | 21 |
| S N Chruimin Naofa, Muilte Farannain, Co. Na Hiarmhidhe Will crossed hand-eye dominance have a positive or negative effect on your aim? | 22 |
| St Vincent De Paul GNS, Marino, Dublin 9 What part of our oral hygiene routine has the biggest impact on reducing plaque build-up? | 23 |
| St Vincent De Paul GNS, Marino, Dublin 9 Should we say "Nope to Soap?" | 24 |
| Scoil Bhride, Beal Atha Na Sluaigh, Co. Na Gaillimhe Does listening to music while working affect your concentration? | 25 |
| St Laurence's NS, Greystones, Co. Wicklow How far can a paper airplane fly while carrying a weight? | 26 |
| Mother Of Divine Grace, Ballygall, Dublin 11 Do you think taller people have bigger feet than smaller people? | 27 |
| Mother Of Divine Grace, Ballygall, Dublin 11 Does playing organised club sport improve reaction time? | 28 |
| Ranelagh MDS, Ranelagh, Dublin 6 Does the shape of a rocket affect the height it travels? | 29 |
| Scoil Lorcaín, Baile Na Manach, Co. Atha Cliath Cén tionchar atá ag an ngealach ar an taoide? | 30 |

Wednesday March 6th

Stand

St Patricks Snr Mixed, Skerries, Co. Dublin

What impact does plastic that ends up in the sea have on the environment?

31

Churchtown NS, Athy, Co. Kildare

When it comes to running is it an advantage to be taller than your competitors?

32

St Saviour's NS, Rathdrum, Co. Wicklow

How do our other senses affect how we taste food?

33

Killasser NS, Swinford, Co. Mayo

What is the effect of gaming on your body?

34

S N Olibhear Pluinceid, Anagaire, Co. Dhun Na Ngall

An mbeidh sé ar ár gcumas cónaí ar phláinéad Mars riamh?

35

Gaelscoil De Hide, Br Na Gaillimhe, Co. Roscomain

An Bhfuil aon difríocht san uisce timpeall Roscomáin?

36

St Saviour's NS, Rathdrum, Wicklow

Does our brain affect how we taste food ?

37

Gaelscoil Na Laochra, Birr, Co. Offaly

How do different music genres effect cow's milk production?

38

St Conleth's College JS, Ballsbridge, Dublin 4

Why can magnets do so many things?

39

St Conleth's College JS, Ballsbridge, Dublin 4

How will changing the angle of elevation affect how far we can shoot a ping pong ball?

40

Scoil C.Ui Dhalaigh, Léim An Bhradáin, Co. Chill Dara

Conas is féidir le rabhaidh aimsire luaithe cabhrú le laghdú thionchar stoirmeacha tromchúiseacha?

41

Scoil C.Ui Dhalaigh, Léim An Bhradáin, Co. Chill Dara

Ag fiosrú fadhbanna choitianta le Lego We Do.

42

Gaelscoil An Chuilinn, Baile An Tirialaigh, Baile Átha Cliath 15

Cé comh sláintiúil is atá an aer thart timpeall orainn?

43

Gaelscoil Ultain, Cnoc An Chonnaidh, Co. Muineachan

An bhfuil gach pota mil mar an gcéanna?

44

Gaelscoil Chluain Dolcáin, Cluain Dolcáin, Baile Átha Cliath 22

Cad é an rud is salaí ar scoil?

45

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| Scoil Lorcaín, Baile Na Manach, Co. Atha Cliath Cén tionchar atá ag an ngealach ar an taoide? | 46 |
| St Marys NS, Gorey, Co. Wexford Are there alternative ways to package fruit and vegetables in an effort to reduce plastic waste? | 47 |
| Balscadden NS, Ring Commons, Co. Dublin Can we see a difference in pH levels between urban and rural areas in Irish waters? | 48 |
| Oxmantown NS, Birr, Co. Offaly Does the Daily Mile make you happier, energized and improve your learning? | 49 |
| Clonown NS, Athlone, Co. Roscommon Can we use everyday objects to extract DNA from a kiwi? | 50 |
| Gaelscoil An Longfoirt, Longfort, Co Longfoirt How do water speakers work? | 51 |
| Gaelscoil An Longfoirt, Longfort, Co Longfoirt How does the quality of soil affect a plant growing? | 52 |
| Gaelscoil An Longfoirt, Longfort, Co Longfoirt How are plastic cups made? | 53 |
| Scoil Chaoimhin, Sraid Mhaoilbhríde, Baile Atha Cliath 1 Is chocolate good for you? | 54 |
| Gaelscoil na Ríthe, Tallaght, Dublin 24 How does music influence our behaviour? | 55 |
| Gaelscoil An Choillín, An Muileann Gcearr, Co. Na hIarmhí Homework: Help or hindrance? | 56 |
| Gaelscoil Eiscir Riada, Leamhcán, Co. Átha Cliath Cad iad na mórfhadhbanna atá inár dtimpeallacht? | 57-60 |
| Gaelscoil Na Camoige, Cluain Dolcain, Baile Atha Cliath 22 Conas gur féidir le foirgneamh cumhacht chrith talún a sheasamh? | 61 |
| Gaelscoil Na Camoige, Cluain Dolcain, Baile Atha Cliath 22 Conas gur féidir monatóireacht a dhéanamh ar bholcáin? | 62 |
| Scoil Chiarain, Domhnach Cairne, Baile Atha Cliath 5 How do the diets, fitness levels and heart rates of top athletes vary? | 63 |

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Stand

Moneystown NS, Bray, Co. Wicklow

The Titanic was 'The Ship of Dreams'. Was it a ship of science and engineering?

64

Ballinlough NS, Kells, Co. Meath

How do electric cars work?

65

Kildare Place NS, Upper Rathmines Rd, Dublin 6

Do video games raise your heart rate to the same level as exercise?

66

St Mary's PS, Dorset Street, Dublin 7

What is D.N.A. and what does it determine in males and females?

67

St Mary's PS, Dorset Street, Dublin 7

How runny can liquid be: Is water the runniest liquid there is?

68

Goldenbridge Convent, Inchicore, Dublin 8

How and why do different surfaces affect friction and movement?

69

S N Baile Cuisin, Foulksmills, Co. Wexford

Why is the ash tree best for making hurls?

70

Scoil An Spioraid Naomh, Laytown, Co. Meath

Can we use methods alternative to fossil fuels to power everyday transport?

71

St. Teresa's Primary School, Balbriggan, Co. Dublin

What are the best conditions for growing plant seeds?

72

Sn Eoin Baisde Boys Senior School, Clontarf, Dublin 3

Can you trust your senses?

73

St Joseph's NS, Carrickmacross, Co. Monaghan

The Plank: Useful or useless?

74

Presentation PS, Halston St, Dublin 7

Which chocolate melts the fastest: Dark, Milk or White? And why?

75

Scoil Naoimh Pio, Beauparc, Co. Meath

Could a robot be powered by fruit or vegetables?

76

S N Cnoc Ainbhil, Stillorgan/Blackrock, Co. Dublin

So you think your hands are clean...?

77

S N Athracht Nfa, Charlestown, Co. Mayo

Great leaps! Does the length of your legs determine how high you can jump?

78

Scoil na Coróine Mhuire, Ashford, Co. Wicklow

Which ingredients make the best slime?

79

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| Kilberry NS, Athy, Co. Kildare Who has better hearing: children or adults? | 80 |
| St. Fintan's NS, Sutton, Dublin 13 What percentage of an iceberg floats above the water? | 81 |
| St Fintan's NS, Sutton, Dublin 13 Will hydroponically grown plants grow faster or slower than plants grown in natural soil? | 82 |
| Scoil Phadraig Naofa, Athy, Co. Kildare Why do your fingers go wrinkly in water? | 83 |
| Scoil Phadraig Naofa, Athy, Co. Kildare Who has the fastest hands? | 84 |
| Kiltarnan Church Of Ireland NS, Kiltarnan, Dublin 18 Which type of movement break helps to improve mood, concentration and memory best? | 85 |
| Scoil Naomh Eanna, Loughrea, Co. Galway Does gaming affect our concentration? | 86 |
| S N Chaomhain Torrchoill, Gorey, Co. Wexford Can a relatively short period of increased exercise improve lung capacity? If so, by how much? | 87 |
| St Joseph's NS, Dun Laoghaire, Co. Dublin Are you smarter in the morning or the evening? | 89 |
| St Joseph's NS, Dun Laoghaire, Co. Dublin How do we act under pressure? | 90 |
| St Joseph's NS, Hacketstown, Co. Carlow How are islands formed? | 91 |
| S N Eoin Bosco Buach, Navan Road, Dublin 7 How does science give the gift of hearing? | 92 |
| Shinchill NS, Tullamore, Co. Offaly How does the type of soil in a garden affect how vegetables grow? | 93 |
| Scoil Moibhi, Skerries, Co. Dublin What foods can charge devices and why? | 94 |
| S N Cholmcille, Inis Teog, Co. Kilkenny How does friction work? | 95 |

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Stand

Farnham NS, Cavan, Co. Cavan

How do hens make a shell? Do they really need it?

96

North Bay ETNS, Kilbarrack, Dublin 5

Have you got the right time? Are you sure?

97

Bishop Foley Memorial BNS, Carlow, Co. Carlow

Will exercise help us to improve our concentration and test results?

99

S N Mhuire, Garristown, Co. Dublin

Generation Gaming: How is our concentration affected?

100

St Brigid's BNS, Foxrock, Dublin 18

'It's not rocket science' or is it? Just how hard is it to build and launch a rocket?

101

St Brigid's BNS, Foxrock, Dublin 18

Why do leaves change colour in Autumn?

102

Chapelizod NS, Chapelizod, Dublin 20

Does using a device (phone / tablet / laptop) in bed have an impact on your sleep?

103

An Chroi Ro Naofa NS, Aughrim, Co. Wicklow

One minute? Really?? How long is it?

104

Scoil Micheal Naofa, Castlerea, Co. Roscommon

Why do volcanoes blow their tops?

105

Scoil Naomh Buithe, Dunleer, Co. Louth

The Great Gluten Free Bake Off! To what extent does gluten intolerance affect us?

106

St Brigid's BNS, Foxrock, Dublin 18

How does a lightswitch control a lightbulb?

107

St Brigid's BNS, Foxrock, Dublin 18

How does friction affect the movement of objects?

108

S N Baile An Phiarsaigh, Drinagh, Co. Wexford

What is the effect of drying time on silage?

109

Scoil Cnoc Mhuire Sin, Tallaght, Dublin 24

Which food and drink products are the most effective for cleaning and stain removal?

110

S N Baile Finn, Portlaoise, Co Laois

How does our heart function in our bodies?

111

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| S N An Aird, Clonakilty, Co.Cork How can we increase Biodiversity in our school grounds? | 112 |
| St Ultan's NS, Cherry Orchard Avenue, Dublin 10 How does the colour of food affect our perception of it? | 113 |
| St Ultan's NS, Cherry Orchard Avenue, Dublin 10 Why do people remember the same experience differently? | 114 |
| Dominican Convent Girls Sr School, Cabra West, Dublin 7 What happens if fitness packs are supplied to people – do they improve their fitness levels? | 115 |
| Dominican Convent Girls Sr School, Cabra West, Dublin 7 Why does skin get wrinkled in water? | 116 |
| Mhuire N S, Mullingar, Co. Westmeath Can we develop an algorithm to solve the Rubik's Cube? | 117 |
| S N Tighearnain Naofa, Ballina, Co. Mayo How do traffic lights work? | 118 |
| St Mark's Snr NS, Tallaght, Dublin 24 Aluminium, Iron and Steel: Which metal(s) rust the fastest in fresh water and salt water? | 119 |
| Scoil Chaitlin Maude, Tamhlacht, Baile Atha Cliath 24 Which types of exercise improve children's academic performance? | 121 |
| North Dublin NS Project, Ballymun Road, Dublin 9 What soil conditions speed up decomposition of our lunch? | 122 |
| S N Paroiste Maitiu Naofa, Sandymount, Dublin 4 How does sound affect someone's concentration? | 123 |
| S N Mhuire Na mBrathar, Marino, Dublin 9 Does homework improve children's performance in primary school? | 124 |
| S N Muire Is Gearard, Enniskerry, Co. Wicklow How do nettles sting humans? | 125 |
| S N Bhaile Eamonn, Rathfarnham, Dublin 16 What is the ideal recipe to create slime safely at home? | 126 |
| Clonbullogue NS, Clonbullogue, Co. Offaly Can you really use hazel rods to divine water? | 127 |

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Stand

The Glebe NS, Wicklow Town, Co.Wicklow

Can you turn the noise down? Which are the best materials to insulate sound?

128

St Brigid's Kildare Town PS, Kildare Town, Co. Kildare

How do gears make cycling easier?

129

Gaelscoil Philib Barún, Trá Mhór, Co. Portláirge

Conas a mhaireann iasc san fharraige domhain?

130

Dundalk Grammar JS, Dundalk, Co. Louth

Can 6th Class improve the nutritional value of their snacks?

131

Carlow ETNS, Carlow Town, Co. Carlow

Are we more likely to take risks as members of a group or when alone?

132

Rathdown Junior School, Glenageary, Co. Dublin

Was the wall the cause of Humpty Dumpty's fall?

133

Catholic University JS, Leeson Street Lower, Dublin 2

What effect do sugary drinks have on our bodies?

134

Scoil Treasa Naofa, Donore Avenue, Dublin 8

How does a body get stronger?

135

Thursday March 7th

Stand

Corduff NS, Lusk, Co. Dublin

Can the sugar tax really help improve the health of Irish people?

1

S N Realt Na Mara (B), Mornington, Co. Meath

Do plants have feelings?

2

St Patrick's NS, Drumcondra, Dublin 9

What happens to the 'hand' when we combine an acid and a base?

3

St Patrick's NS, Drumcondra, Dublin 9

Do balls perform better when pumped to the correct air pressure?

4

Clonmellon NS, An Uaimh, Co. Na Mí

Is it possible to live in a house made from treats?

5

St Philip's Snr N S, Clonsilla, Dublin 15

What are the effects of exercise on your heart rate, with and without music?

6

St Louis Snr PS, Rathmines, Dublin 6

What is the best recipe for homemade slime?

7

St Kilian's German School, Clonskeagh, Dublin 14

Why do fish not get squashed at the bottom of the ocean?

8

S N Cruachain, Croghan, Via Boyle, Co. Roscommon

Do major and minor keys in music affect how we move in everyday activities?

9

S N Cruachain, Croghan, Via Boyle, Co. Roscommon

Sleep: quality or quantity? That is the question!

10

Gaelscoil na gCloch Liath, Greystones, Co. Wicklow

An bhfuil éifeacht ag ceol agus cleachtadh spóirt ar torthaí scrúdaithe?

11

Riverchapel NS, Gorey, Co. Wexford

How do we create a perfect habitat for wildlife in our school garden?

12

S N Naomh Philomena, Tullamore, Co. Offaly

What happens when we practice mindfulness every day?

13

S N Naomh Mhuire, Naas, Co. Kildare

Can we reduce use of single use plastics in our school?

14

St Pius X BNS, Terenure, Dublin 6W

Hot chocolate anyone? Which cup should I choose?

15

Presentation PS, Portarlington, Co. Laois

How do you inherit your eye colour?

16

Thursday March 7th

Stand

Scoil Mhuire, Ballinasloe, Co. Roscommon

How many potatoes are needed to power a house for 24 hours?

17

Scoil Mhuire, Ballinasloe, Co. Roscommon

Are we addicted to the sugar we cannot see?

18

Monkstown ETNS, Dun Laoghaire, Co. Dublin

Does music affect how we feel?

19

Monkstown ETNS, Dun Laoghaire, Co. Dublin

How can we stop an egg breaking if we drop it from a height?

20

Lucan Community NS, Lucan, Co. Dublin

What makes our hands steadier; breathing or brain exercises?

21

Lucan Community NS, Lucan, Co. Dublin

Do plants grow better with music?

22

St Manchan's NS, Athlone, Co. Westmeath

How can I stop my sliced apple or banana going brown in my lunch box?

23

Kill-O'-The-Grange NS, Blackrock, Co. Dublin

Reducing our food waste: Is it a piece of cake?

24

S N Cholmille BNS, Swords, Co. Dublin

How does temperature affect the charge or life of a battery?

25

S N Cholmille BNS, Swords, Co. Dublin

Are athletes born or made?

26

The Harold School, Glasthule, Co. Dublin

Why do things smell?

27

St Pauls NS, Navan, Co. Meath

Why do children with asthma find it difficult to breathe sometimes?

28

Mount Anville Montessori JS, Goatstown, Dublin 14

What effect do electronic devices have on us, both emotionally and physically?

29–30

St Brigid's NS, Kilcullen, Co. Kildare

What happens if we break a bone in our body?

31

Ballindaggin NS, Enniscorthy, Co. Wexford

What makes a good go-kart?

32

Grangecon NS, Grange Con, Co. Wicklow

What is the most suitable parachute design to protect precious cargo?

33

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| Arden Boys NS, Tullamore, Co. Offaly What effect do various activities have on blood pressure and heart rate? | 34 |
| St Joseph's NS, Kilcock, Co. Kildare Does screentime adversely affect 10 and 11 year olds? | 35 |
| St Joseph's NS, Kilcock, Co. Kildare How do soft drinks lose their fizz? | 36 |
| St Columbas NS Mxd, North Strand, Dublin 3 Why bother washing your hands? What happens if you don't? | 37 |
| Holy Family School For The Deaf, Cabra, Dublin 7 Where is home sweet home for a bug? | 38 |
| St Colmcille's BNS, Swords, Co. Dublin Why do leaves change colour? | 39 |
| Tombrack NS, Ferns, Co. Wexford At what age are your reflexes the best? | 40 |
| International School of Dublin, Synge Street, Dublin 8 Can food power a light bulb? | 41 |
| Thornleigh ETNS, Swords, Co. Dublin Money Laundering – How filthy is your fiver? | 43 |
| Clochar Na Trocaire, Boyle, Co. Roscommon What happens if we change the materials that make oobleck? | 44 |
| St Joseph's NS, Kilcock, Co. Kildare Why do onions make us cry and what can we do to prevent this? | 45 |
| St Joseph's NS, Kilcock, Co. Kildare What materials react when mixed together? | 46 |
| Scoil Mhuire Coolcotts, Coolcotts, Co. Wexford Does the daily mile improve pupils' performance in school? | 47 |
| Scoil Mhuire Coolcotts, Co. Wexford Can kids live without sugar? | 48 |
| Ballyvongane NS, Coachford, Co. Cork How much pressure can bones take? | 49 |

Thursday March 7th

Stand

Holy Family School, Glenageary, Co Dublin

Will displaying math's problems in our community encourage people to appreciate the creative side of maths?

50

John Scottus NS, Northumberland Road, Dublin 4

What food creates the strongest electrical current?

51

John Scottus NS, Northumberland Road, Dublin 4

What can we learn about energy and rest?

52

St Patrick's PS, Mullanaskea, Enniskillen, Co. Fermanagh

Does an empty roller coaster travel faster than a full rollercoaster?

53

St Joseph's Convent NS, Longford Town, Co. Longford

Which brand of popcorn pops the best?

54

Bracken ETNS, Balbriggan, Co. Dublin

What can cause people's hair to go grey?

55

Bracken ETNS, Balbriggan, Co. Dublin

Can a computer replace a teacher?

56

S N Mhuire, Summerhill, Co. Meath

How do we stop onions making us cry?

57

S N Tamhnighan Fheadha, Charlestown, Co. Mayo

How do we start a new garden?

58

St Pius X GNS, Terenure, Dublin 6W

What effect have Leonardo Da Vinci's sketches had on STEM in the modern world?

59

St Pius X GNS, Terenure, Dublin 6W

So little, yet so important: Bacteria – good guys or bad guys?

60

Ardnagrath N S, Athlone, Co. Westmeath

Putting Ironman's cereal to the test! Which one will prove the best?

61

Tulsk NS, Castlerea, Co. Roscommon

Which drink is the most corrosive and why?

62

Dunboyne Senior NS, Dunboyne, Co. Meath

How can we save the bee population?

63

Loreto College JS, St Stephens Green, Dublin 2

When you look in a spoon, why are you upside down?

64

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| St Mary's NS, Athlone, Co. Westmeath What minerals do our bodies need and why? | 65 |
| St Mary's NS, Athlone, Co. Westmeath How do you solve a Rubik's cube? | 66 |
| Scoil Nioclais, Grange, Co. Cork What is the best balloon-powered vehicle we can design, build and test? | 67 |
| Inchicore NS, Inchicore, Dublin 10 What does the colour of your eyes say about you? | 68 |
| Gorey Central School, Gorey, Co. Wexford How do magnets work? | 69 |
| St Pius X GNS, Terenure, Dublin 6W Can we make a range of natural products to kill parasites on our pets? | 70 |
| Glasnevin Educate Together NS, Glasnevin, Dublin 11 Can we make a non-toxic, eco-friendly, sustainable and fun alternate to playdough? | 71 |
| Ballaghkeene N S, Enniscorthy, Co. Wexford Electricity over the years — has it had an impact on society? | 72 |
| St Mary's NS, Lucan, Co. Dublin Can an information campaign on the effects of pollution change our outlook and habits? | 73 |
| St Mary's NS, Lucan, Co. Dublin Can we use dirty paint water to water our plants? | 74 |
| St Molaga's Snr NS, Balbriggan, Co. Dublin Why and how is paper made from trees? | 75 |
| St Molaga's Snr NS, Balbriggan, Co. Dublin Can we build a car and make it move? | 76 |
| Scoil Naomh Caoimhghin, Greystones, Co. Wicklow Is teaching through video better for learning? | 77 |
| Scoil Naomh Caoimhghin, Greystones, Co. Wicklow Sound Slumber: What happens when you sleep? | 78 |
| St Clare's Convent NS, Harold's Cross, Dublin 6W Do pulley systems make it easier to lift objects? | 79 |
| St Ciaran's Mxd NS, Ballycumber, Co. Offaly Would walking or running for 10 minutes per day increase your fitness levels? | 80 |

Thursday March 7th

Stand

Our Lady Of Mercy NS, Kells, Co. Meath

Antibacterial hand sanitizers: hype or help?

81

St Raphael's NS, Ballyfermot, Dublin 10

What would happen if you lit a match in space?

82

Scoil Bhride NS, Rathangan, Co. Kildare

How is marine pollution affecting our Irish waters?

83

St Annes Mxd NS, Shankill, Co. Dublin

Can we defy gravity?

84

Ballycoog NS, Avoca, Co. Wicklow

Is toothpaste the best option?

85

St Molaga's Snr NS, Balbriggan, Co. Dublin

Why does so much plastic end up in the ocean and on the beach?

86

St Aidan's NS, Kilmanagh, Co. Kilkenny

Are we blinded by the brands? – An investigation to decide if our taste buds are deceived by branding.

87

St Kevin's GNS, Tallaght, Dublin 24

Can a BBC Microbit be used to improve class responses in a Maths class?

88

Baile Falbach, Lusk, Co. Dublin

Microwaves: How do they work and how beneficial are they to us?

89

Baile Falbach, Lusk, Co. Dublin

Do our other senses get stronger when one is lost?

90

St Gerard's JS, Bray, Co. Wicklow

Is plastic packaging worth using to keep our lunches fresh?

91

Holy Trinity NS, Leopardstown, Dublin 18

Can a Crumble device be used to improve class responses and engagement in a maths class?

92

St Aidan's Parish School, Enniscorthy, Co. Wexford

How healthy or harmful are the drinks we buy in our local shops?

93

Scoil Mhuire Fatima, Timahoe, Co. Laois

Plastic or Plankton – Which do our fish deserve?

94

Scoil Mhuire, Broadway, Co. Wexford

Can you make water vanish?

95

| | |
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| St Brigid's NS, The Curragh, Co. Kildare Are girls better than boys at Gaelic football and if so, why? | 96 |
| S N Deaglan, Waterford City, Co. Waterford What contains the most bacteria? | 97 |
| Scoil Naisiunta An Dea Aoire, Churchtown, Dublin 14 Does the colour of light affect plant growth? | 98 |
| Castleknock ETNS, Castleknock, Dublin 15 Do different eye colours affect the colours we see? | 99 |
| Castleknock ETNS, Castleknock, Dublin 15 Why are there only certain colours in the rainbow? | 100 |
| Scoil Ui Chonaill Boys Seniors, Nth Richmond Street, Dublin 1 Magical gravity: but how can some objects impact the effects of gravity? | 101 |
| Powerstown ETNS, Tyrrelstown, Dublin 15 Will long distance running increase your speed over 50 metres? | 102 |
| St. Andrew's College JS, Blackrock, Co. Dublin Do our school's fingerprints validate the International norm? | 103 |
| St Coen's NS, Rathnew, Co. Wicklow What materials can block a WIFI signal? | 104 |
| St. Anne's NS, Duncormick, Co. Wexford What birds visit our school garden? | 105 |
| Crossmolina NS, Crossmolina, Co. Mayo What happens if cars could run on air? | 106 |
| Sacred Heart N S, Mulhuddart, Dublin 15 What liquid mix makes the best bubbles? | 107 |
| Aibhistin Naofa, Beal Atha Na Sluagh, Co. Na Gaillimhe What is the Green Dot and what does it mean when recycling? | 108 |
| S N Naomh Antaine, Ballinlough, Co. Cork Which laundry detergent removes stains more effectively and why? | 109 |
| St Joseph's For Blind NS, Drumcondra, Dublin 9 Why was the iceberg that collided with Titanic not spotted until it was too late? | 110 |
| Newcourt Special School, Bray, Co. Wicklow How much weight can spaghetti hold? | 111 |

Thursday March 7th

Stand

Balbriggan ETNS, Moylaragh, Co. Dublin

What makes our Irish butter different from other butters around the world?

112

St Kevin's BNS, Tallaght, Dublin 24

Can a BeeBot be used to improve class responses in a maths class?

113

St Kevin's BNS, Tallaght, Dublin 24

Why is one side of our school colder than the other side?

114

S N Mhuire Na Mbrathar, Marino, Dublin 9

Will participation in the Daily Mile improve fitness, concentration and short term memory?

115

Glasnevin NS, Glasnevin, Dublin 9

Will increasing our fitness levels improve performance in recalling our tables?

116

Wicklow Montessori PS, Wicklow Town, Co. Wicklow

Solar Sensors! Are our senses affected in space?

117

Scoil Bhríde PS, Edenderry, Co. Offaly

When do children grow the most?

118

Scoil Naomh Colmcille, Donaghmede, Dublin 13

What are the benefits of exercising for an extra ten minutes daily?

119

Scoil Naomh Colmcille, Donaghmede, Dublin 13

Can we use a footprint left at a crime scene to identify and charge a suspect?

120

St Mochulla's NS, Tulla, Co. Clare

What technology and equipment were fundamental to the success of the 1969 Moon landing?

121

St Anne's NS, Bailieboro, Co. Cavan

How can we successfully grow cress seeds?

122

Scoil Nais Bhríde, Tullow, Co. Carlow

Why is the sky blue? Exploring the colours of nature.

123

Carysfort NS, Convent Road, Blackrock, Co. Dublin

How bio-degradable is fast food in comparison to natural foods and what does that mean for our environment?

124



What's On!

As well as showcasing hundreds of primary school class investigations, ESB Science Blast features a science entertainment programme specially curated for a primary school audience.

The Exhibition Zone is the heart of ESB Science Blast! Visit the hundreds of class investigations on display in the **Project Showcase** area. Explore the ESB Generation Tomorrow stand alongside lots of interactive exhibits in the **Exhibitor Area**. Pick up a copy of the **STEM Trail** at the Central Information Desk and be in with a chance to win an iPad for your school! Sign up for a **Drumming Workshop** at the Irish Aid stand and pick up **Teacher Resources** from our partners in the Exhibitor Area.

The XX Factor — Meet six amazing women who have made incredible discoveries in the world of science, from sparks, light and gravity, to musical moments and crazy paper chains!

Science of Breakdancing — Mark Langtry, RTE's The Science Guy, will enlist the help of a professional break-dancer to help him explain the physics behind the forces at play in some of the slickest dance moves you've seen!

Gastronaut EXTREME — BBC Gastronomist Stefan Gates explores the bizarre science of food in this high-octane show featuring rockets, robots, giant cannons, edible chemistry and a very loud fart machine.

Dangerous Equations — Marty Jopson, BBC One Show's resident scientist, explains how fluffy string can travel at 900 miles per hour, the science of seriously loud explosions and the maths behind a karate chop.

A Rapper's Guide to the Solar System — Join science rapper Jon Chase in the Rap and Snack area for a tour of the solar system with a difference! Using raps, demos and lots of audience participation this is a show not to be missed!

Judges' Feedback — One of the highlights of the day at ESB Science Blast is the positive Judges' feedback (and take-home trophy!) for every school.

ESB Science Blast Judges

ESB Science Blast is a non-competitive initiative which aims to support the development of core science and maths skills in primary school children. The role of Judges is to provide constructive feedback to students and their teachers on their work, to provide them with insight for how they could extend their investigation (for example by plotting data or changing a variable to see what happens) and to encourage children to think scientifically about the world around them. A big thank you to all of our Judges who voluntarily give of their time to support the next generation of inquiring minds!

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Institute of Education

Gwendoline Baker

RDS STEM Learning
Facilitator; Deputy
Principal, Kill of the
Grange National School

Emer Barry

Education Programme
Executive, Sustainable
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Royal College of
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Science Education, DCU

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Lecturer in Science
Education, Mary
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Dr Sheila Donegan

Director of Calmast,
Waterford Institute
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Pat Dowling

Renewable Contracts
Manager, ESB

ESB Science Blast Judges

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School of Medicine,
Trinity College Dublin /
St. James's Hospital

Amy Fahy

Teacher, St Patrick's
Senior Mixed School,
Skerries, Co. Dublin

Eleanor Fahy

Principal Teacher, Mother
of Divine Grace PS

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GWM, ESB

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Director of Enterprise &
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Founded in 1731 to support the cultural and economic development of Ireland, in 2018, the RDS invested €2.5 million across our work areas of the arts, science, agriculture and business.

ESB Science Blast is a key project within our science and technology work programme. It is underpinned by the RDS STEM Learning Programme, which supports primary school teachers to integrate science, technology, engineering and mathematics into their classroom practice.

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