

# Sfl Discover Science & Maths Award 2018

## Log of Evidence

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| <p><b>1. Science</b></p> | <p><b>Living Things</b> -As part of the 2016 RDS Primary Science Fair the pupils investigated the following:-<br/> <a href="#">How do worms affect vegetative growth?</a><br/> As part of this project, we designed a wormery with the help of the South Mayo Rural and Social Scheme workers. We continue to develop the use of this wormery. The compost in the wormery is very beneficial to the flowers we plant in our window boxes at different stages in each year.</p> <div style="display: flex; justify-content: space-around;">   </div> <p>We recently took part in the <a href="#">Crocus Bulb Initiative</a> as part of a history project. The yellow crocus flowers now in bloom are to remind us of all the jewish children (yellow star of David) who perished in the holocaust during World War II.</p> <p>We have recently got a <a href="#">bokashi bin</a> for composting raw and cooked food. We put the juices from the bokashi bin in our wormery and around our plants. This acts as a great fertiliser for plant growth while at the same time we are reducing the weight of our bin refuse each week. We have shared on our twitter account a video on <a href="#">how to use a bokashi bin</a>.</p> <p><b>Is the compost from our wormery more beneficial to plants than ordinary compost from shops?</b><br/> <u>Summary of findings:-</u><br/> While the compost from the shop stimulates more plant growth initially, in the long term, the wormery compost gives a more thicker and robust plant with stronger stems and healthier leaves.</p> |
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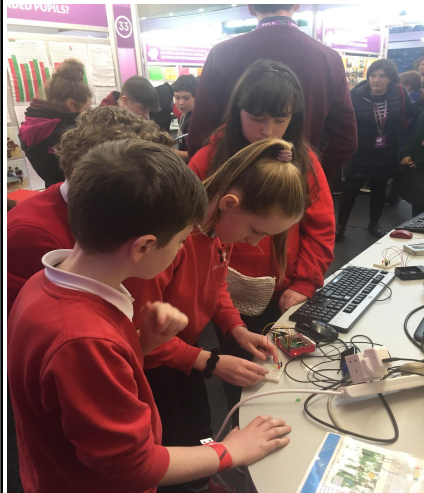
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|  | <p>The wormery creation from 2016 forms part of our science every year since at our school.</p> <p>We have now started to set up <a href="#">a wildlife garden</a> after receiving funding from Mayo County Council under the Local Agenda 21 scheme.</p> <p>We hosted an interactive, online Kahoot science quiz on '<a href="#">The Lungs</a>' as part of Science week.</p> <p><b>Energy &amp; Forces</b> As part of Science Week, we invited Dr.Martin (Secondary School Science Teacher) to our school to carry out experiments with the pupils. - <a href="#">Can we drop an egg from a two storey building without breaking it?</a></p> <p><b>Materials: Properties and characteristics of materials:</b></p> <p>We have carried out the investigations listed below:-</p> <p><a href="#">We investigated if we could make water walk?</a></p> <p><b>Environmental Awareness and Care:</b></p> <p><a href="#">Can we make a hotel for insects in our school garden?</a></p> <p><a href="#">Can we make our own bird feeders to hang on the trees in our school garden?</a></p> <p><a href="#">Can we make a christmas decoration from recyclable materials?</a></p> <p><a href="#">Can we do something about all the plastic being disposed in our environment causing harm to aquatic and bird life?</a></p> <p><a href="#">Pupils create a presentation on their Bottle Caps initiative as one of the projects for the Intel Mini Scientists competition.</a></p> <p><b>Invited a science speaker to your school:-</b></p> <p>Dr.Eileen Lane - Biology and Toxicology lecturer from Athlone I.T <a href="#">visits our school</a> with her team of student dental nurses for a workshop on Oral Health &amp; Hygiene. Some pupils <a href="#">publish a report</a> about the event on our school website.</p> <p>Invited secondary school teacher, Róisín Brady and her family to discuss how they are nearly at zero waste in their home. We published a full report about the <a href="#">zero waste workshop</a> on our website.</p> |
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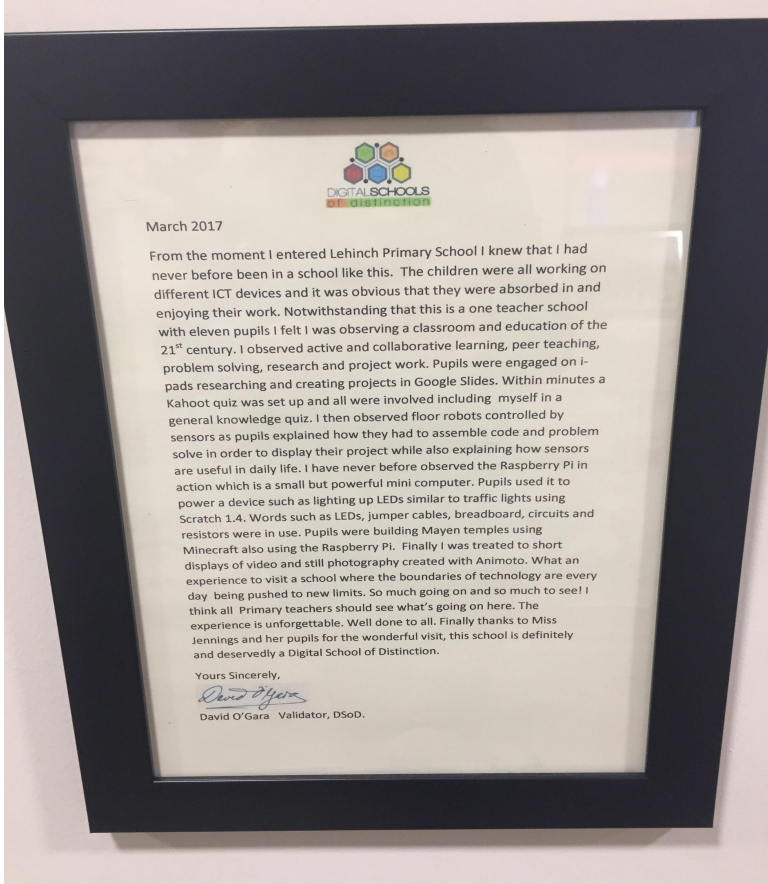
**Attended or hosted a Science Week event in Nov 2017**

We attended the Mayo Science & Technology Fair as part of Science week and we took part in their competition: '[Can we construct a raft strong enough to hold marbles without sinking?](#)' - We built a robust raft from lollipop sticks and elastic bands which held between 24 and 33 marbles.

**Participated in science events or projects:-**

Múinteoir Síle delivered a 21st Century Teaching and Learning workshop on - [Using LEDs on breadboards with Raspberry Pis](#) to the pupils. The class in turn posed to ask the question at the 2018 Primary Science Fair in Mary Immaculate College, Limerick. Can we construct a circuit on breadboards lighting up LEDs using a Raspberry Pi?



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|                             | <p>Our stand got <a href="#">some attraction</a> on the day.</p> <p>We also did a space study and <a href="#">presented our findings on the planets</a> using the Padlet platform.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <p><b>2. Technology</b></p> | <p><b>Other:-</b></p> <p>We were awarded a Digital School of Distinction by the Department of Education in 2017. Here's what our inspector reported after his visit. Click here for a copy of the DSoD inspector's <a href="#">full report</a> which details testament of the uses of ICT across the various subjects in our school.</p>  <p>As a result, we were invited to showcase our work at the 2017 Excited movement, where <a href="#">we appeared on national t.v.</a></p> <p>Pupils took part in <a href="#">EU Code Week</a>, using the <a href="#">resources available</a></p> |

[online.](#)

**Used ICT to access science/engineering/maths information:-**

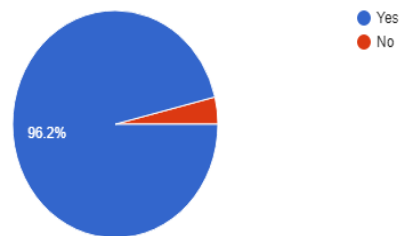
Pupils use the Kahoot platform to create [a quiz about 'The Lungs'](#). The whole school participates in the online quiz.

**Used technology to record and analyse data (spreadsheet/graph):-**

Pupils created surveys in Google Forms to establish interest from the public on their Internet Safety Board Game. They used the bar/pie-chart data to read and report on the evidence found.

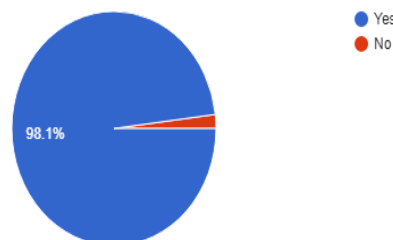
Would you be interested in buying an Internet Safety board game at a competitive price?

52 responses



Would you be willing to pay €20 for a pack of 3 standard board games?

52 responses

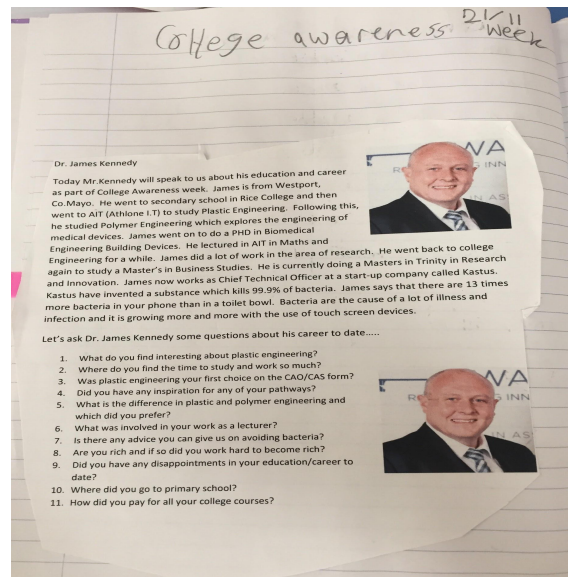


**Developed a Blog/Website/Video:-**

Two individual pupils entered the *Bright Spark Award* competition of the Junior Entrepreneur competition for primary schools. The pupils were required to submit a business idea on a one minute video duration. This award is for business ideas which require some more work and cannot be implemented this current school year. The pupils created the following videos themselves to

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|                | <p>communicate their ideas to the JEP team.</p> <p>Video 1 - A <a href="#">Minecraft Maths game</a></p> <p>Video 2 - <a href="#">A traffic lights system to get pupils active in school.</a></p> <p><b>Used computers, laptops, iPads, iPods for classwork:-</b><br/>         We have a variety of devices available to pupils in our classroom, from iPads to Chromebooks, Raspberry Pi's and Windows 10 laptops as testified in the DSoD report.<br/>         We use Google apps as platforms to carry out and present some of our school work.<br/>         Pupils record samples of their work for each subject in a <a href="#">structured folder plan within their Google accounts.</a> (e-portfolios).</p> <p>Pupils use their own email accounts to enter competitions on the Primary Planet Magazine. In the recent edition, the magazine published <a href="#">the pupils' poems</a> which they emailed in themselves.</p> <p><b>Developed a Google Slides presentation:-</b><br/>         Pupils present projects on a particular country each month.<br/> <a href="#">Here's an example.</a></p> |
| 3. Engineering | <p><b>Design and Make Activity:</b></p> <p>During Engineers week, in pairs we <a href="#">designed automobiles</a> from sketching and using Scratch programming.</p> <p>We <a href="#">built robots</a> and <a href="#">programmed them to move.</a></p> <p><a href="#">Designed and made a floor board, Internet Safety game</a> for use with robots to help primary and secondary school pupils develop their computational thinking and to raise awareness around Internet Safety with young people and families.</p> <p><b>Invited an engineer to the school to speak to the children about his or her work:-</b><br/> <a href="#">Computer Engineer, Colm Walsh talks to the pupils about his work in the HSE and demos fixing some typical problems with the hardware components of computers.</a></p> <p><a href="#">Skype Call - Question and Answer session</a> with <a href="#">Dr.James Kennedy</a> from Kastus Technologies on his educational and career pathways story, raising pupil awareness around engineering and</p>                                                                     |

college pathways. Learning the difference between polymer and plastic engineer both of which Dr.Kennedy studied in Athlone I.T.



**Used the Engineers Week resource from DPSM website:-**

Egg Drop Challenge Experiment - [Can we drop an egg from a two storey building without breaking it?](#)

**Other:-**

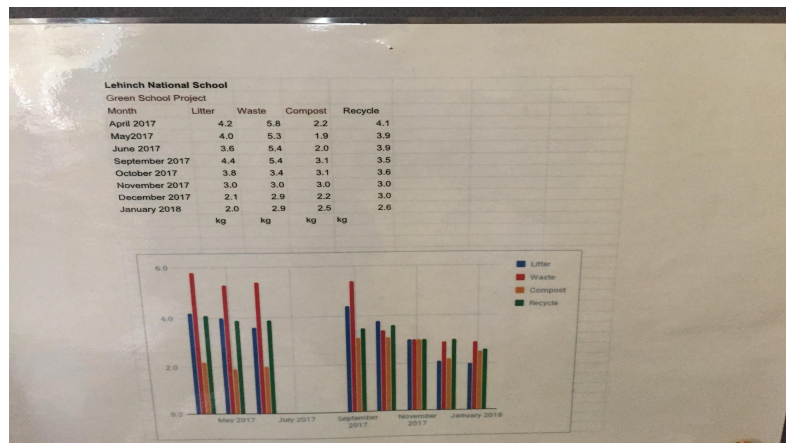
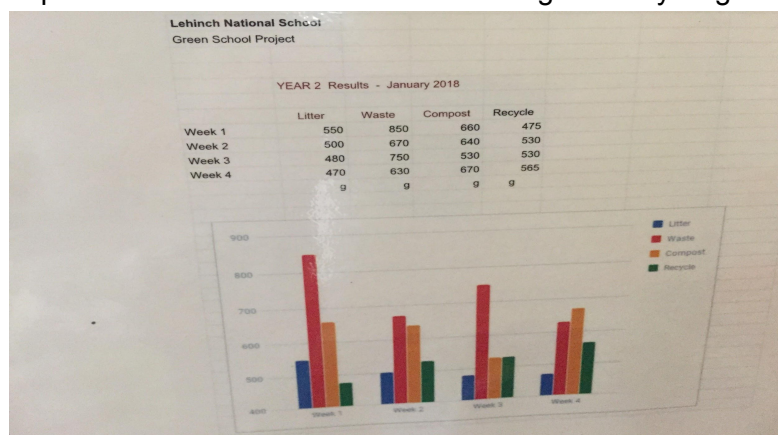
Visited [Athlone I.T Engineering](#) faculty along with other faculties during [College Awareness week](#) in November 2017.



#### 4. Maths

**Used maths to record and/or analyse science investigation results.**

Pupils will receive their Green School Flag for Recycling this year.



As

part of the report, the pupils represented their data on MS Excel charts. This represented the comparison in refuse weight from year 1 to year 2.

**Pupils developed their own maths trail for in and around the school. - [See example](#).**

We shared pics, wrote about it and published [an example of one of our maths trails](#) on our website.

**Other:-**

Created a [maths game on a Minecraft platform](#) to help with Maths operations. This was shortlisted to represent Mayo in the [Intel Mini Scientist Finalists](#) by one of the Intel judges. Here is a link to the [Minecraft Game Presentation](#). We took part in the [Have you got Maths Eyes](#) initiative. Pupils made up questions about the pictures from the Have you Got Maths Eyes website. Our school were one of the [Learnstorm Finalists](#) run by Camara Ireland. Awards took place at Dublin Castle in 2016.

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|                                | <p>We used our school yard to chalk out coordinates on an X and Y axis to develop and enhance our understanding of plotting our characters when creating games and animations in Scratch.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <p><b>5. STEM Showcase</b></p> | <p><b>Science open day or evening to explain and present STEM work for the school, parents and wider community:-</b></p> <p>As part of the Junior Entrepreneur Programme for schools, my pupils have created and co-designed an Internet Safety Game which can be played using robots <u>or</u> mini characters/counters. The pupils have been using mBots and the 'Make Block' app (using block code) to control the robots to move to the correct space after rolling the dice. The game raises awareness around Internet Safety and promotes computational thinking. It encourages the participants to play in pairs thus promoting peer learning and collaboration. The game is suitable for both primary and secondary level pupils and families.</p> <p>The game will be available as a standard sized board game for use with characters/counters or as a floor PVC game where robots can be used. Robots do not come with the floor game but we can show you where to purchase them online. Click to view a <a href="#">short video</a> of the game in play.</p> <p>The pupils had a Junior Entrepreneur <a href="#">showcase evening</a> at <a href="#">our school</a> which went really well. The board game is available for purchase by emailing <a href="mailto:lehinchprimary@gmail.com">lehinchprimary@gmail.com</a>. You can purchase a pack of 3 standard sized board games for €20 or a large floor board game for €60 which is played by moving robots around the mat. The pupils would like to invite Sfl to complete this <a href="#">short survey</a> which takes less than one minute. Feedback is very important to us.</p> |

Click to [view the pupils' presentation](#) of the Internet Safety game.

**Take part in any science fair where the children can present and discuss their work:-**

Pupils took part in the [RDS Primary Science Fair in Mary Immaculate College in January 2018](#). Pupils posed to answer the question - "Can we construct a circuit on breadboards lighting up LEDs using a Raspberry Pi?"

We [shared the pupils achievement](#) with the community.



