Welcome to our submission for the Discover Primary Science and Maths award for 2015. This is our third year taking part in the Awards! This year we are again applying for the Plaque of STEM Excellence, a new award which is given to schools that carry out extensive work in science, technology, engineering and maths, all of which are very important in Killoughteen NS.

 A huge amount of work has gone into this. Well done to all the pupils and teachers who took part. This is the first year, we are using our website to submit our award and to link back to our activities that have taken part during the year. Our SFI award number this year is LK007.

**Step 1: Science**

For this step, we carried out six hands-on Science investigations under the four different strands in classes throughout the school. We also tried to include Maths in these investigations where possible, linking in with Step 4.

* **Energy and Forces**: First class. We investigated what happens when raisins are dropped into a fizzy drink (7Up). Click [here](http://killoughteenns.com/dancing-raisins/) to see our experiment. Senior Infants made Lava Lamps using Glass bottles, oil, water, food colouring and Alka- Seltzers. Click [here](http://killoughteenns.com/seniors-make-lava-lamps/) to see more.
* Fifth and sixth class make electricity circuits [here](http://killoughteenns.com/experimenting-with-electricity/).
* **Living Things**: Junior Infants brought in seeds from many different trees in the local town park and from home. We planted the trees in small pots and watered them every day. Click [here](http://killoughteenns.com/growing-trees-in-the-junior-infant-room/) for more information and pictures. First Class also are working with an Taisce and their LEAF programme. The children did lots of activities. See [here](http://killoughteenns.com/first-class-had-leaf-work-shop-with-niamh-ni-dhuill/) for more information.
* **Environmental Awareness and Care**: All classes – We worked on achieving our third green flag this year for water conservation. Mrs O Doherty our co-ordinator had all classes doing activities for this and I am glad to report that we have achieved this Green Flag. Click [here](http://killoughteenns.com/greenflag-awarded-to-killoughteen-ns/) for more.
* 5th and 6th class look at convectors and insulators [here](http://killoughteenns.com/convectors-and-insulstors/).
* **Materials**: 5th and 6th class got baking. Chocolate tasted as good and even better when melted. Click [here](http://killoughteenns.com/5th-and-6th-class-get-baking/) for more. Junior Infants made waterproof wax crayon pictures. This was done in conjunction with the Green Flag activities. Click [here](http://killoughteenns.com/waterproof-wax-crayon-pictures/) for more. See lots of pictures [here](http://killoughteenns.com/science-week-in-junior-infants/) taken in the Junior Infant room during science week. It was great fun.

5th and 6th Class also took part in the Primary Science Fair held in Mary Immaculate College, which you can read all about [here](http://killoughteenns.com/primary-science-fair/) . They went to see many shows and spoke to a lot of people on the day. We also had Jason O Mahony for Safer Internet Day which is shown below.

**Step 2: Technology**

In the second step, we had to ensure that technology was used by our pupils. We have incorporated technology into everyday life in our school. We have not only included the pupils but parents as well. All school notes are sent via email using the school administration system called Aladdin. Money collections are completed in this way and so much more using ICT.

Our 5th and 6th class love using Kahoot with their teacher Miss Mulqueen. This year we entered a competition to get a workshop with Learnit in association with Analog Devices. We were successful and got a full days workshop on February 1st with Learnit. In this full day workshop, we had to design and make a robot and then programme the robot to complete certain tasks. It was a great day. See [here](http://killoughteenns.com/robotics-workshop/) for more on this. One team were picked out after the days workshop and went on to represent our school in the county finals. I am delighted to report that our pupils were crowned county champions. See [here](http://killoughteenns.com/county-champions-in-analog-devices-primary-school-robotics/) for more.

Throughout all the other classes in the school, pupils of every age have also used cameras, iPads and the school website, to showcase the work that they have been doing during the course of the year. For example, for World Book Day this year we had some pupils who took photos of the day’s activities using the school iPads. Click [here](http://killoughteenns.com/book-day-2018/) to see more.

We also realise that ICT comes with its own safety issues. Therefore, we invited Jason O Mahony into our school. He did internet safety with Juniors to sixth class pupils and had an internet safety session for our parent body. See [here](http://killoughteenns.com/safer-internet-speaker/) for more.

**Step 3: Engineering**

For the third step of our application for the DPSM Plaque of STEM Excellence, we took part in Engineers Week. As part of this, our 2nd to 6th class pupils travelled to UL to see a show called ‘It’s all done with mirrors’ and very much enjoyed it. Click [here](http://killoughteenns.com/engineers-week-in-ul-2/) to see some pictures.

Our second and third class designed a nest for a specified purpose. They had to use household materials to make a nest into which an egg would be dropped from a height. They had to try and make sure that the egg was kept safe. It was great fun and we learnt a lot. Click [here](http://killoughteenns.com/designing-and-making-nests-in-second-and-third-class/) to see our nests that we constructed.

**Step 4: Maths**

Throughout our Science investigations, we incorporated Maths where possible. For example, 5th and 6th class used their iPads to calculate what speed they could run and who was the fastest in their class. Click [here](http://killoughteenns.com/busy-at-maths/) to see more.

The school also took part in Maths Week in October 2017. Read about all the Maths competition that takes place here for Maths Week(October) and just before Easter in our school [here](http://killoughteenns.com/table-toppers-at-halloween/) and [here](http://killoughteenns.com/table-toppers-easter-2018/).

Please look [here](http://killoughteenns.com/maths-trail-in-juniors/) to see our Junior Infants working on a maths trail using the school iPads. They had great fun.

**Step 5: STEM Showcase**

5th and 6th Class took part in the BT Young Scientist Exhibition in Mary Immaculate College in January this year. They put a huge amount of work and effort into their project entitled ‘What Conditions are Necessary for the Growth of Mould to Occur?’ You can read all about their experience [here](http://killoughteenns.com/primary-science-fair/) .

We hoped you enjoyed reading our submission!