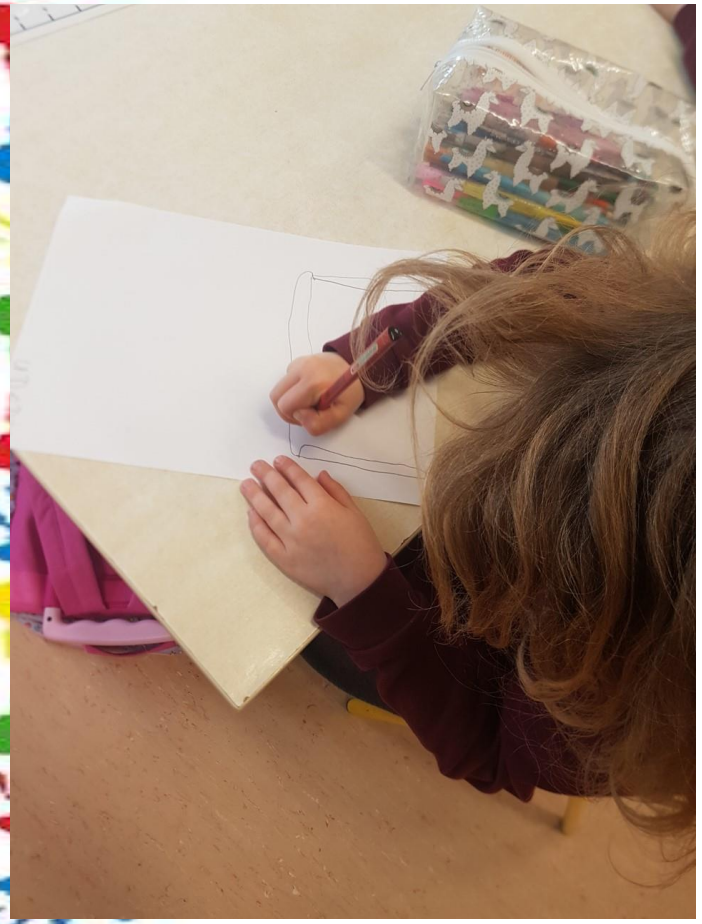
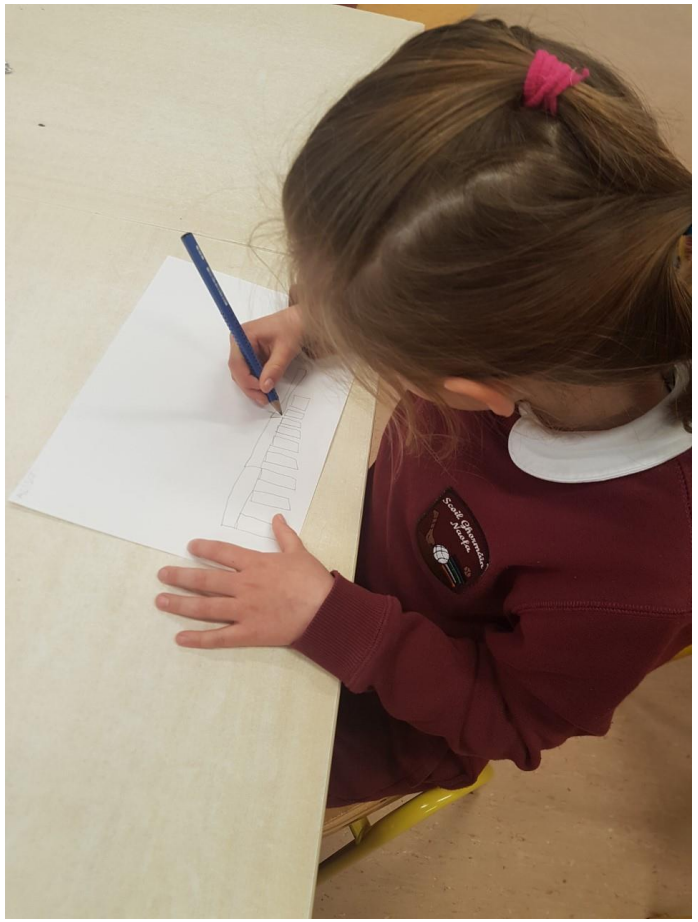
Step 3: Engineering

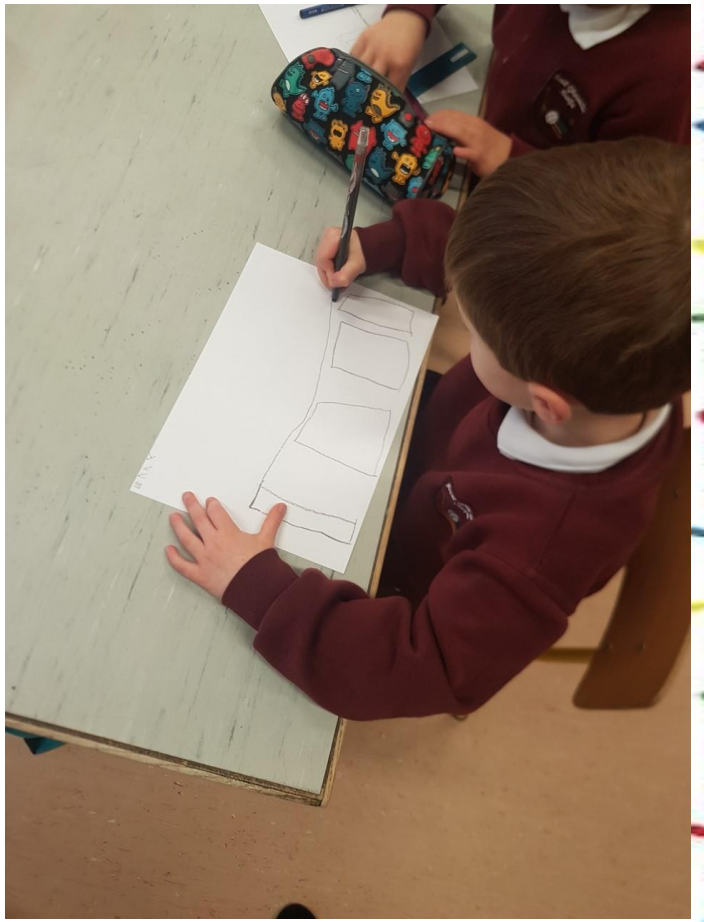
Activities completed

- Junior and Senior Infants designed and built bridges;
- 3rd, 4th and 5th classes were learning about houses and homes and were visited by a structural engineer who explained his work;
- 6th class completed a project on renewable energy and linked their learning to a local wind farm;
- As part of Active Week, the school will visit the area of this wind farm. 6th class will observe their learning in action;
- As part of Engineers Week, 3rd & 4th class designed ways to protect their eggs during an Egg Drop and;
- 3rd, 4th and 5th classes experimented with matchsticks and blutack. They designed and created different 3D shapes.

Junior & Senior Infants designed and built bridges.







The First Attempt!

- This was the first groups attempt.
- It was very unstable and collapsed.
- This was discussed and other groups altered their plans accordingly.

- The next group added more legs to stabilise.
- This was more sturdy than the previous attempt but still did not hold up when children tried driving on it.

The improved bridges!

3rd, 4th and 5th Class were visited by an Engineer. His talk related to work they were doing in class.

Scoil Ghormain Naofa. ***STEM.***

Visit to the school by **Structural Engineer** Diarmaid O' Súilleabháin.

Date: 1st May, 2019.

Classes: 3rd, 4th and 5th Class.

General Plan:

- Introduction about the role of a structural engineer. A general outline of a typical day and projects that Diarmaid undertakes.
- The class discuss the different types of engineer that they know about, for example Biomedical, Civil, Chemical, Electronic, Software, Mechanical Engineers.

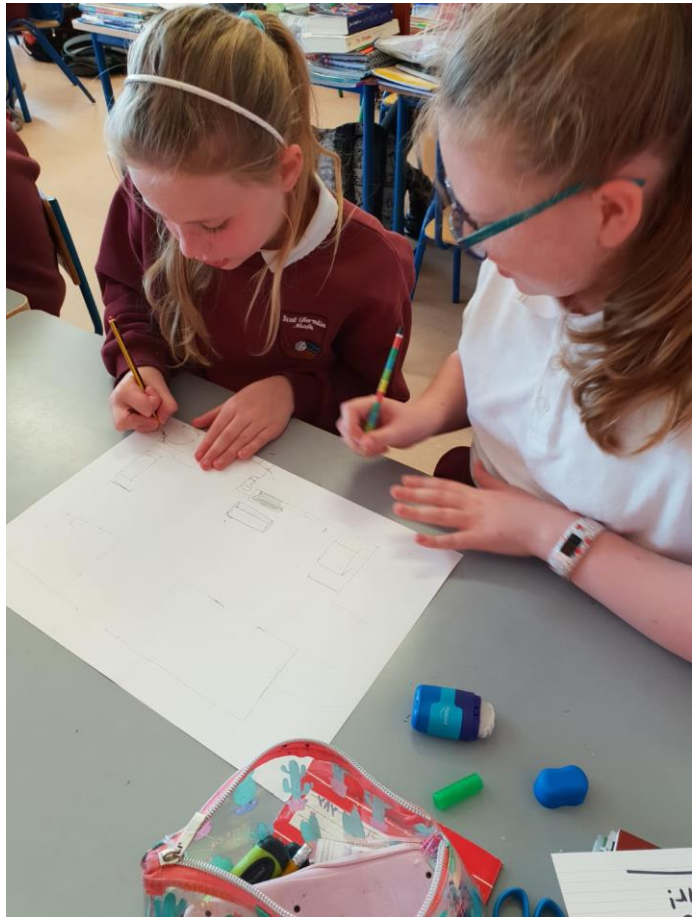
- **Q and A:**

  - *Why did you become an engineer?*
  - *What is the best thing about your job?*
  - *In a typical day, what do you do?*
  - *What is the best project you have every worked on?*
  - *What was your favourite subject in school/ what subject was most helpful for engineering?*

- The classes have been doing project work about homes and houses. Different types of homes have been discussed in detail and the children have learned about the materials used when building a house. They will discuss about Environmentally Friendly Buildings and sustainable energy used in modern buildings.
- Key Discussion Words: Solar panels, double and triple glazed windows, insulation, wind energy, geothermal energy.

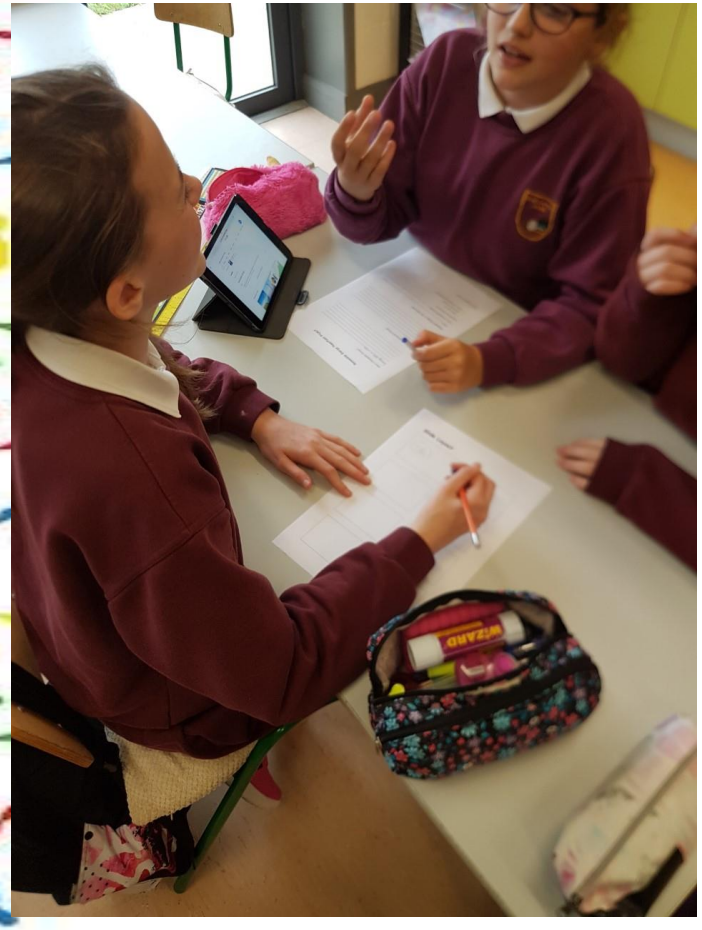
- The classes design their own dream home in groups, using all the information about building materials, sustainable energy, engineering and architecture that they now know.

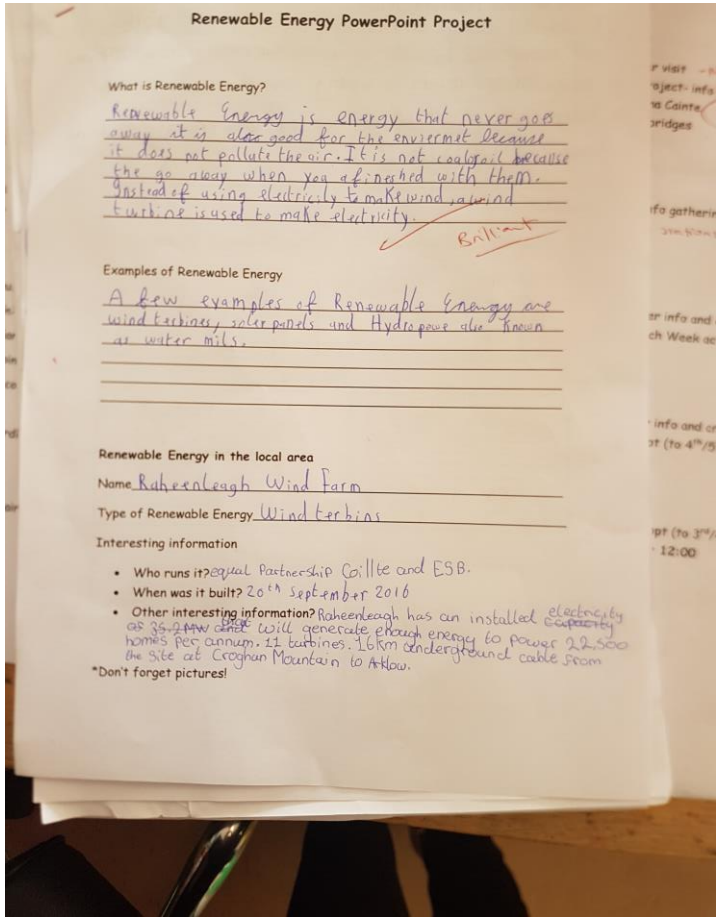
They created blueprints for their dream house. Diarmaid gave constructive feedback.




Be Kind.
Listen

6th Class completed a project on Renewable Energy. They focused on a local wind farm, Raheenleagh.





Renewable Energy PowerPoint Project

What is Renewable Energy?

Renewable Energy is energy that never goes away it is also good for the enviermet because it does not pollute the air. It is not coalgas because the go away when you a finished with them. Instead of using electricity to make wind a wind turbine is used to make electricity.

Brilliant

Examples of Renewable Energy

A few examples of Renewable Energy are wind turbines, solar panels and Hydropower also known as water mils.

Renewable Energy in the local area

Name Raheenleagh Wind Farm

Type of Renewable Energy Wind turbins

Interesting information

- Who runs it? Coillte and ESB.
- When was it built? 20th September 2016
- Other interesting information? Raheenleagh has an installed electricity capacity of 36.2MW and will generate enough energy to power 22,500 homes per annum. 11 turbines. 16km underground cable from the site at Croghan Mountain to Arklow.

*Don't forget pictures!

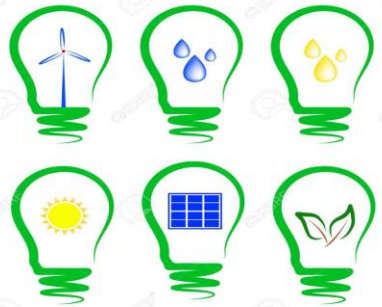
Some examples of our Renewable Energy projects. We learned about the different types of renewable energy.

What is Renewable Energy:

Renewable Energy is energy from a source that is not wasted when used such as wind and sun power. Renewable energy is also called “clean energy” or “green power” because it doesn’t pollute the air or the water.

Types of renewable energy

Here are some types of renewable energy

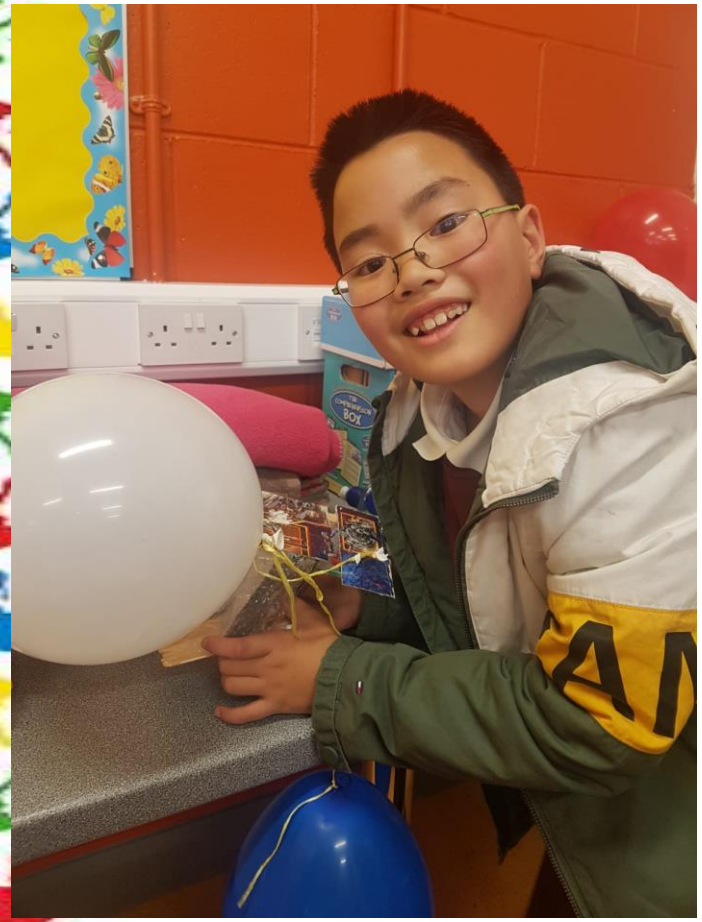


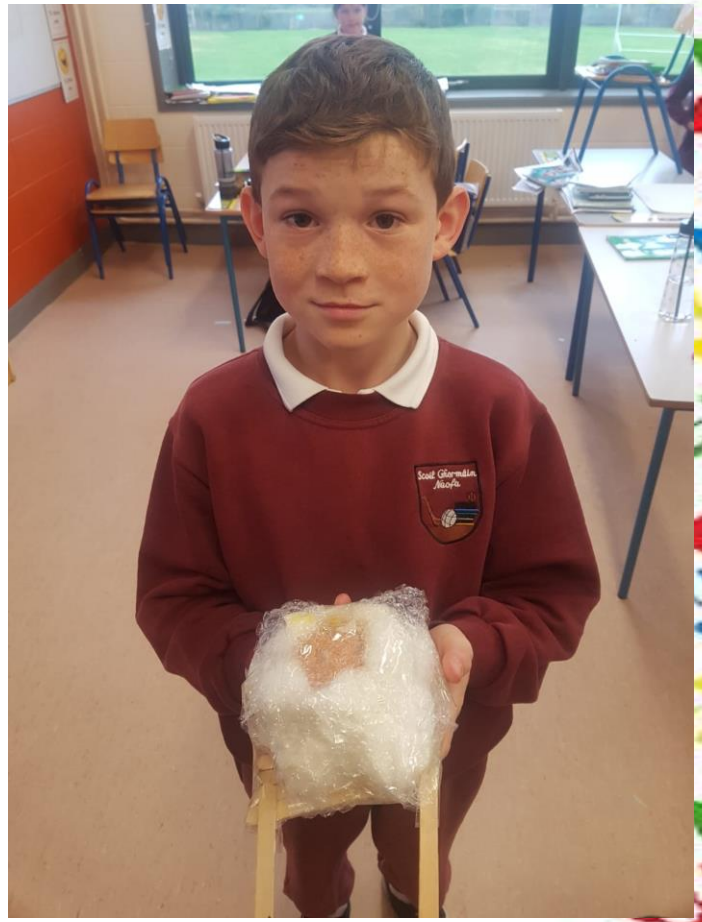
Solar power

Solar power is the clearest most reliable form of Renewable energy available, and it can be used in many forms to help power your home or business.

Like electricity and gas, Solar power can be used as energy.

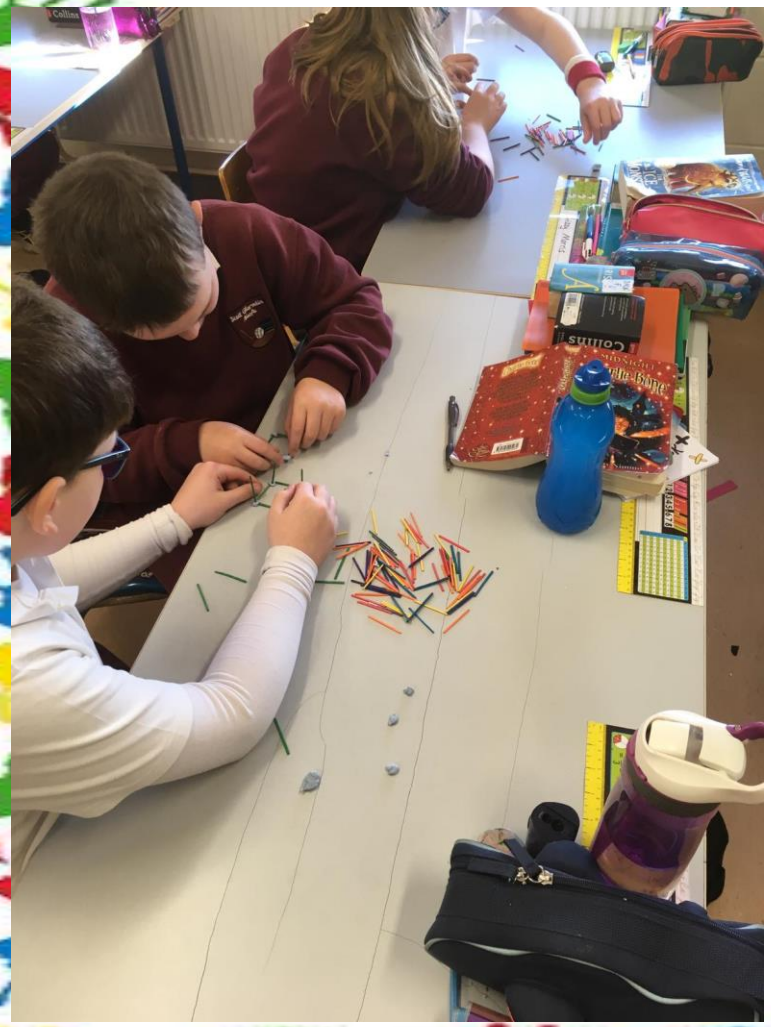
3rd & 4th Class Egg Drop

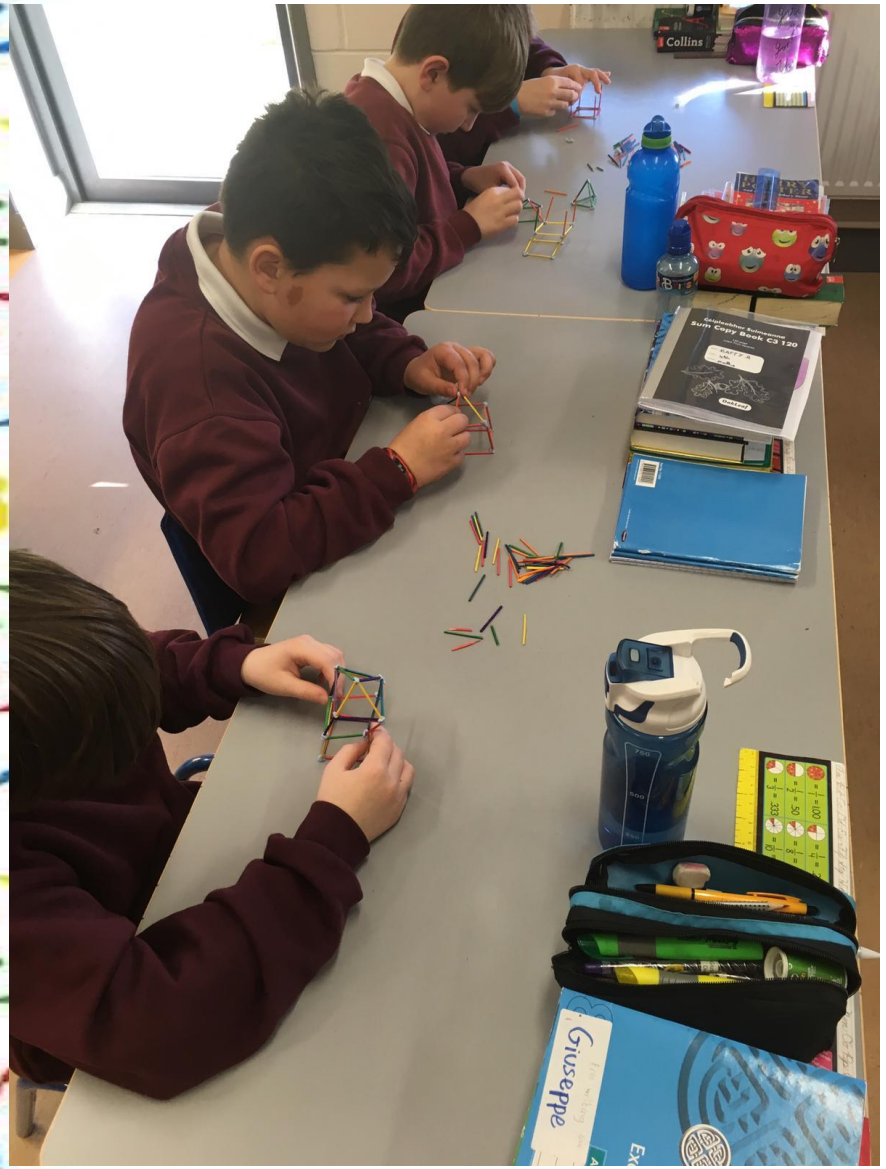




Egg Drop demonstration during our STEM Showcase

3rd, 4th & 5th Class exploring and creating 3D structures.




Collins
Giuseppe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