

Maths as part of our S.T.E.M.

Projects

Slender Tower Design:

- **Length:**

We had to make sure our towers were a meter tall. We used a meter stick to measure our towers when they were constructed.

- **Slenderness Ratio:**

We calculated this ratio by measuring the height of our tower and measuring the width of the tower base. We then divided the height by width to get the slenderness ratio.

Results:

Group	1m tall?	Free standing?	Height	Base	Slender ratio
Andrew, Liam, Grace Carr, Gráinne, Eimear, Clodagh, Erin O S	Yes	Yes	100cm	21cm	1:4.8
Katie, Sadhbh, Alex, Edel, Caoimhe	Yes	No	107cm	17cm	1:6.3
Beibhinn, Diarmuid, Eoan, Erin	Yes	No	113cm	7cm	1: 16.14
Hugo, Killian, Iarla, Mark, Corey, Sean /	No	No	75cm	21cm	1: 3.6

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Teams	People on the team	3..	2..	1..
Erin, Lauren, Sophia, Peadar	1	✓	✓	✓ Slide
Beidhinn, Alex, Sadhbh, Matthew H	2	✓	✓	X
Clodagh, Erin F, Orlaith, Matthew Q	3	✓	✓	X *Held for 8 seconds
Gráinne, Sarah, Caoimhe, Grace Killian O' N	4	X	X	X
Meadbh, Eimear, Corey, Gabrielle	5	✓	✓	X *Weight attached lower down
Ellie, Seán, Marlon, Liam, Mark	6	✓	✓	✓ Slide
Katie, Grace Creedon	7	✓	✓	✓
Iarla, Eoghan, Andrew	8	X	X	X
Edel, Diarmaid, Hugo, Emily, Eoan	9	✓	✓	X *Held for 2 seconds

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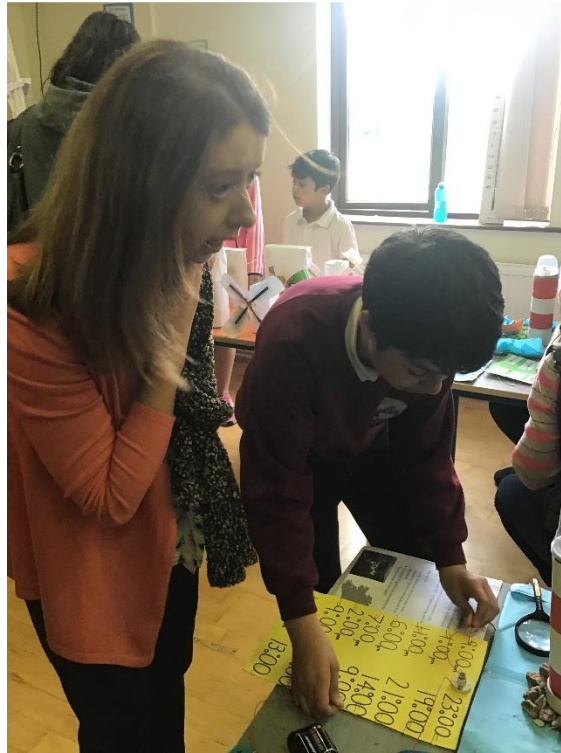
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Variable:
design of towers.



Circuit Quizzes:

- Some of our groups designed mathematical circuit quizzes.



Hugo's quiz on Time.

Egg Drop Challenge:

- We measured the height from where we would drop our devices/ carriages. They were dropped from 2m of a height. We used a meter stick to measure the point.
- We recorded our results on a table.



Teams	People on the team	Test 1	Test 2
Erin, Lauren, Sophia, Peadar	1	✓	X
Beidhinn, Alex, Sadhbh, Matthew H	2	X	X
Clodagh, Erin F, Orlaith, Matthew Q	3	✓	✓
Gráinne, Sarah, Caoimhe, Grace Killian O' N	4	✓	X
Meadbh, Eimear, Corey, Gabrielle	5	X	✓
Ellie, Seán, Marlon, Liam, Mark	6	✓	✓

Katie, Grace Creedon	7	✓	✓
Iarla, Eoghan, Andrew	8	✓	X
Edel, Diarmaid, Hugo, Emily, Eoan	9	✓	✓

Wind Turbine Challenge:

- **Weight:**

We had to design a turbine that would turn a rod to lift a weight. We tested our machines with different weights.

Results:

Teams	People on the team	50g	70g	100g
Erin, Lauren, Sophia, Peader	1	✓	✓	✓
Beidhinn, Alex, Sadhbh, Matthew H	2	✓	X	X
Clodagh, Erin F, Orlaith, Matthew Q	3	✓	✓	X
Gráinne, Sarah, Caoimhe, Grace Killian O' N	4	✓	X	X
Meadbh, Eimear, Corey, Gabrielle	5	✓	X	X
Ellie, Seán, Marlon, Liam, Mark	6	✓	✓	X
Katie, Grace Creedon	7	✓	✓	X

Iarla, Eoghan, Andrew	8	X	X	X
Edel, Diarmaid, Hugo, Emily, Eoan	9	✓	✓	X

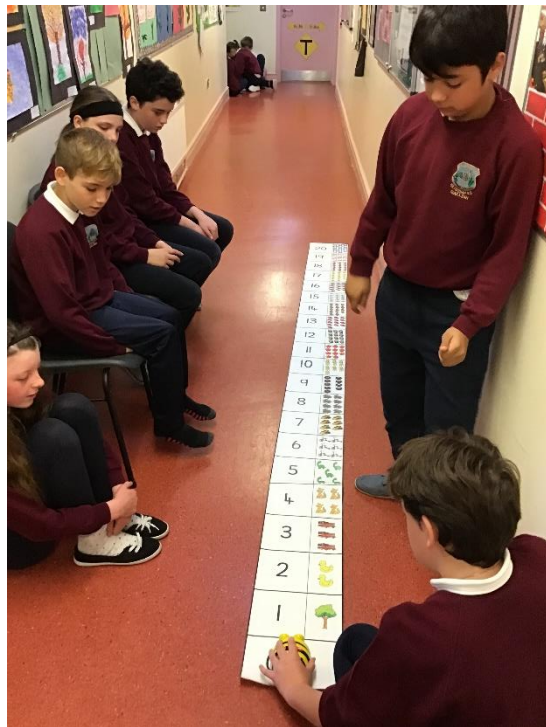
Coding:

- **Bee Bots:**

We developed our spatial awareness skills using Bee Bots. You can tell the Bots to go forward, backwards, left and right. We practiced programming the bots using an app on our iPads before we used the real ones. We practiced sending the bots to different places on grid mats. We sent the BeeBots around a wooden maze as well.





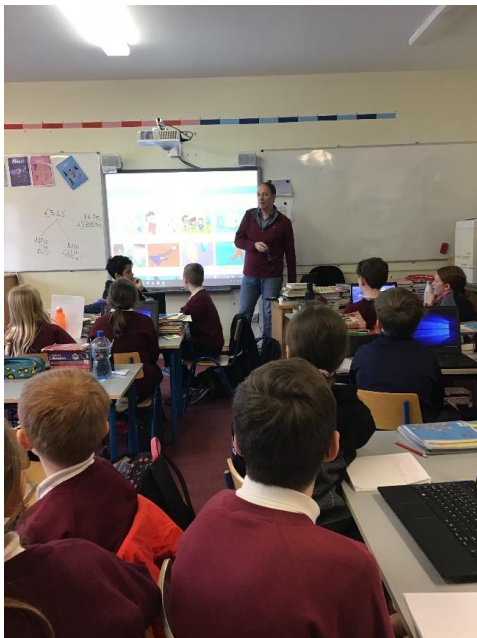


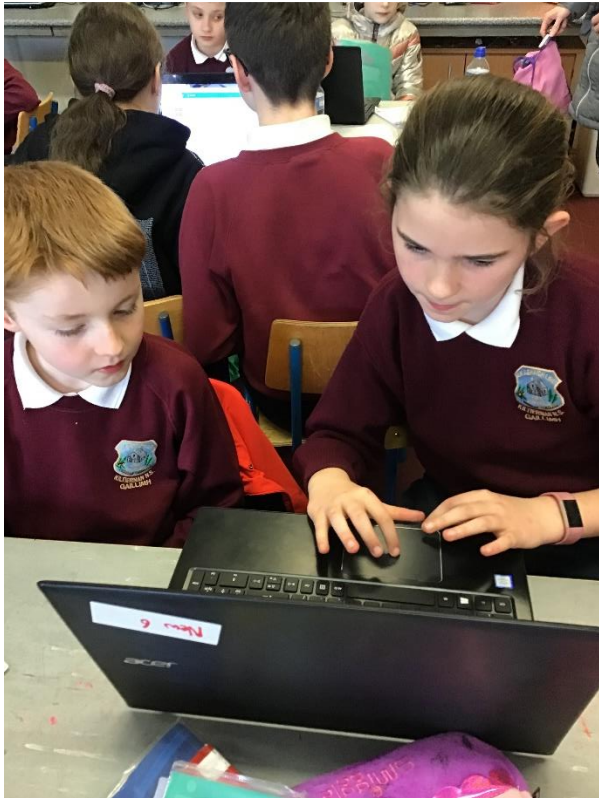


Scratch:

Noel Murphy from Intel visited the Senior Room (4th-6th Class) to do a Scratch Workshop. This is a program that allows you to make stories, games, animations and quizzes by entering different commands.

Scratch programming supports the teaching and learning of the primary Math's curriculum covering algebra, number, shape and space, measures and data.





- ***Maths Trails:***

Junior and Senior Infants did class Maths Trails around the school and looked at Maths in our environment.



Estimating the number of bales



Grouped by their ages



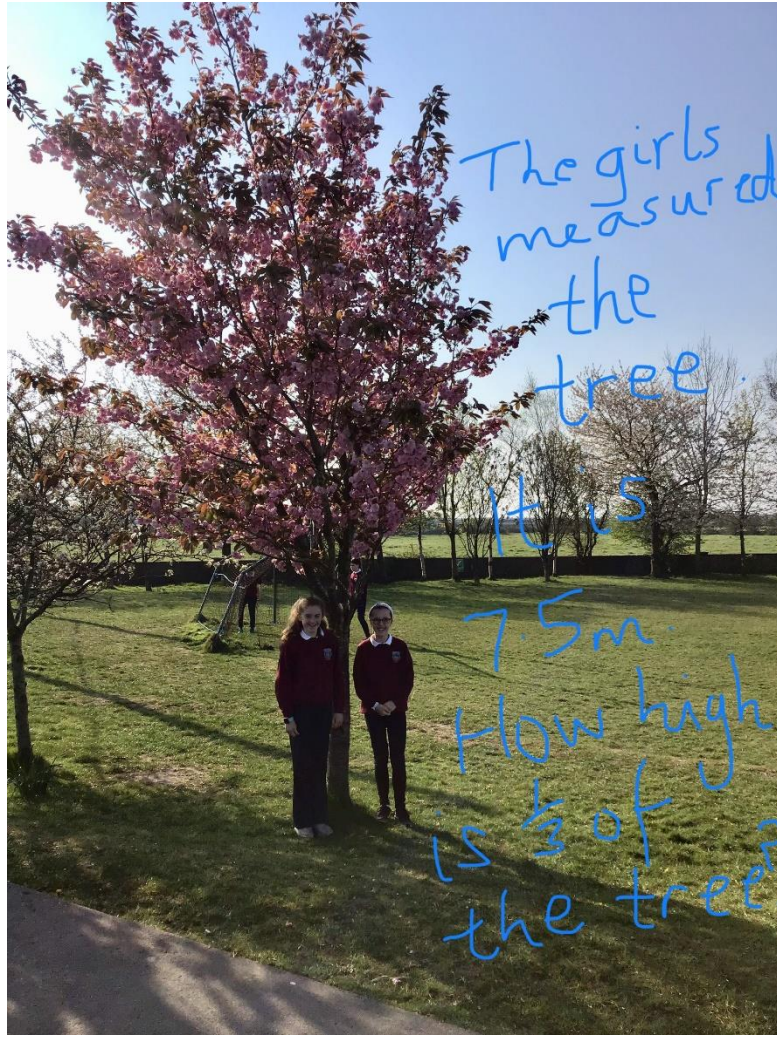
Counting the bins



Shape watch

Maths Eyes:

This is an initiative encouraged by the Science Foundation of Ireland Discover Science, Maths and Engineering Excellence Awards to encourage pupils to look at the world around them through a mathematical lens. Our pupils in Kiltiernan took photographs of everyday objects in their environment and posed mathematical questions to initiate a mathematical response to the photograph. 6th Class used ipads to create their projects. Pupils presented their posters to parents and the community at the STEM Showcase day.







Here is a link to our video 'Maths Week 2018' in Kiltiernan N.S.

https://drive.google.com/open?id=1HagouNzyv79xAPnTfnqan5gbAY_tEKb9