Scoil Mhainchín, Ennistymon N.S.

Discover Primary Science

Log of Evidence 2017-2018
Step 1: Science

1. Living Things:
   Fingerprint
   How plants absorb liquid
   Soil components

2. Energy and Forces:
   Light-Mirror Writing
   Dancing Raisins
   Balance using coins and paper

3. Materials:
   Which brand of kitchen paper is the most absorbent?
   Chromatography

4. Environmental Awareness and Care:
   Making Bird Feeders

5. Other:
   Science Week Event Nov. 2017
Living Things

Myself: Fingerprints:
1st and 2nd class investigating some facts about themselves by taking fingerprints.
Living Things

Investigating how plants absorb liquid
Living Things

Looking at the components of soil
Energy and Forces

Light: 1st and 2nd class experimenting with mirror writing.

Forces—Dancing Raisins
1st and 2nd class observing what happens when raisins are added to a fizzy drink.
Energy and Forces

Inquiring how to balance a clown using coins and paper
Materials

Fifth and sixth class tested four different brands of kitchen paper to see which was the most absorbent.
Materials

3rd & 4th class investigated chromatography using different materials such as filter paper, tissue and ordinary paper.
We discovered that the filter paper realised the clearest results.
Environmental Awareness and Care

Environmental awareness and care: 1st and 2nd made bird feeders. We filled them with sunflower seeds and observed as birds came to feed. We hung some at our classroom window and we all brought a feeder home.
Other

Science Week Event – Vocational School, Ennistymon – Nov. 2017

A student from U.L. who is studying for her Masters in Science demonstrated and explained materials and change. We saw a variety of changes take place due to chemical reactions, combustion and decompression.
Step 2: Technology

First and second class use computers and the interactive whiteboard to access information and to practise their maths skills.
Fifth and sixth class estimated and then recorded the daily outdoor temperature at 12 noon each day for a week. We recorded the results on a spreadsheet and created a graph to compare our estimates and actual readings.

<table>
<thead>
<tr>
<th>Day</th>
<th>Estimates</th>
<th>Actual Readings</th>
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<tbody>
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<td>Thursday</td>
<td>14</td>
<td>18</td>
</tr>
<tr>
<td>Friday</td>
<td>14</td>
<td>13</td>
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</table>

Temperature Readings: 16th - 20th April 2018

Degrees Centigrade

- Estimates
- Actual Readings
Technology

Fifth and sixth class using Microsoft Excel to compile their results.
Step 3: Engineering

1. Design and make a bridge
2. Investigating engineering in Ennistymon
3. Engineer Derek Troy Visits Scoil Mhainchín
4. Design and make a boat

3rd & 4th class were given a task which was to build a bridge that would support a 1kg weight. The results were very interesting.
Design and Make a Bridge
Design and Make a Bridge
Investigating Engineering in Ennistymon
Engineer Derek Troy Visits Scoil Mhainchín

Local engineer Derek visited third and fourth class. He explained about his work, examined our bridges and offered helpful advice on how they could be strengthened and improved. He then had a question and answer session with fifth and sixth class about his work as an engineer.
Design a Boat

1\textsuperscript{st} and 2\textsuperscript{nd} class made boats using plasticine for the boats and peas for passengers!! Afterwards we designed and made our own boats using a variety of different materials.
Step 4:
Maths

1. Maths Trail
2. Using maths to record and analyse science investigation results

**Maths Trail**
Children from 3rd and 4th class enjoy working in pairs while completing a Maths Trail around our school.
Maths Trail 2018

Guidelines

- Safety is the number one priority so act responsibly at all times
- Respect other classes at work by being quiet and walking at all times
- Stay with your group during the trail
- You will need a pencil, rubber, measuring tape or metre stick
- Attempt ALL questions
- ENJOY the maths trail!

Station 1
The side of the school facing Scoil Mhuire
1. Look at the school wall plaque. In what year was the school built? 1915

2. How many years ago was that? 103 years

3. In what year was the school 10 years old? 1925

4. How many digits are in this number? 5

5. How many.....
   Hundreds 1
   Tens 2
   Units 5

6. What is the smallest/biggest number you can make with these digits?
   Smallest 1
   Biggest 51

7. Which digits are symmetrical? 1

Station 2
Main entrance porch
1. How many panes of glass in total in the porch? 20

2. What fraction of the panes have notices on them? 3
Station 3

Halla

Find examples of the following 2-D shapes and draw where you found them:

<table>
<thead>
<tr>
<th>Shape</th>
<th>Location and drawing</th>
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<tbody>
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<td>Triangle</td>
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<tr>
<td>Rectangle</td>
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<tr>
<td>Square</td>
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<tr>
<td>Circle</td>
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</table>

Find examples of the following 3-D shapes and draw where you found them:

<table>
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<tbody>
<tr>
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<tr>
<td>Sphere</td>
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</tr>
<tr>
<td>Cone</td>
<td><img src="image" alt="Cone" /></td>
</tr>
<tr>
<td>Cylinder</td>
<td><img src="image" alt="Cylinder" /></td>
</tr>
</tbody>
</table>
Using Maths to Record and Analyse Science Investigation Results

Fifth and sixth class examined different brands of kitchen paper with reference to area, unit cost and best value for money.

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Steps to find the most absorbent kitchen roll

Step 1. Get a bowl of water
- syringe
- plates
- 4 different tissues of same size, e.g. 10cm by 10cm (smaller than plate diameter)
- timer

Step 2. Put 20ml of water on the plates using the syringe

Step 3. Put all 4 tissues in separate plates at the same time and count to 15 seconds

Step 4. Remove tissue and leave them to the side

Step 5. Pour water left in the plate into a cup

Step 6. Using the syringe measure what's left

Step 7. Write your result on paper and compare
Using Maths to Record and Analyse Science Investigation Results

Sample A = Blitz = €3 for 3 rolls = 1 unit for €1 = 70 shoots.

Sample B = Fiesta = €2 for 1 roll = 100 shots.

Sample C = Ultra = €1.79 for 4 rolls = €0.45 for 1 roll = (small rolls) = 50 shoots.

Sample D = Plenty = €3 for 1 roll = 100 shoots.
Investigation Record Sheet: Let’s Investigate!

Title: Material and their properties

My Question:

Which kitchen paper is most absorbent

My Prediction:

I think that

Blistex will absorb the most water

Let’s Investigate! (Labeled Diagram)

My Results:

Blistex absorbed the most water

Ultra absorbed the least
Step 5:

STEM Showcase

We presented our work to the 5th class students. Each engineer explained what steps they had taken while building their bridge.
STEM Showcase

There was an opportunity to ask questions and overall it was a thoroughly enjoyable learning opportunity for all.

The End