

Dear Parents,

Courtland School are going to be hosting our first Science Fair on **Thursday 5<sup>th</sup> January 2017**.

In preparation for the fair, your child will need to work independently, to design a project that uses a scientific method to solve a problem/answer a question. They will be asking scientific questions, conducting investigative work and presenting their findings on a project display board. Your child has been given a Science Fair planning sheet to help structure their project. The work needs to be completed at home and will be part of their homework over the Christmas period.

Step 1	Think of a question to answer.
Step 2	Plan your investigation.
Step 3	Make a prediction about what you think may happen.
Step 4	Write up your conclusion. Include if your prediction was correct/incorrect.
Step 5	Present each step of your findings on posters.
Wednesday 4 <sup>th</sup> January.	All resources needed for the project to be brought into school. Completed display boards brought into school.
Wednesday 4 <sup>th</sup> January.	Two projects are chosen from each class to display at the Science Fair.
Thursday 5 <sup>th</sup> January	Science Fair!

We ask that you encourage your child to complete his/her project and monitor their progress along the way. Your support is key to a successful project **but please do not allow your involvement to extend further than 'support'**. Guide your child wherever and whenever you can but let the final project reflect your child's individual effort and design. There are some guidelines provided above if you are unsure as to how much help to give.

During the Science Fair itself, two children from each year will display their project work in the school hall. The rest of the school will have the opportunity to observe the work of peers; discuss the investigation process and demonstrate and explain their investigation to other children and teachers in the school. Each year group in the school will visit the fair. Winners will be chosen for demonstrating creativity, originality, good planning and a good understanding of the scientific process for investigation.

If you have any questions about the Science Fair, or would like more information on supporting your child to create a successful Science Fair project, please do not hesitate to contact us. We look forward to watching your child enjoy this unique opportunity for scientific discovery.

Have fun!

Mrs Rose, Miss Costello and Mrs Reynolds



## Ideas for Topics

Optical illusions
Paper aeroplanes
Density
The Human Body
Volcanoes
Gravity using cups
Chocolate melting
Floating and sinking
Volcanoes
Water glowing
Tornado in a bottle
Combining liquids
Mould
Finger prints
Goo
Taste buds
Taste, smell and body language
Chromatography

**To start your child thinking about what they could investigate for their Science Fair Project, here are some questions:**

- Does the size of a football affect the distance you can throw it?
- Does a bigger seed produce a bigger plant?
- What kind of paper airplane works best?
- Do children have better memories than adults?
- Which fruit rots the fastest?
- If you shake up different brands of soft drinks, will they all “spew” the same amount?
- Which brand of battery lasts the longest?
- Which video game provides the best workout?
- Do left handed people have faster response times?
- Which permanent marker is most permanent?

**Some websites which might help with your child's Science Fair Project:**

<http://www.rigb.org/families/experimental>

<http://www.sciencekids.co.nz/experiments.html>

<http://www.kids-science-experiments.com/>

<http://www.kidzone.ws/science/index.htm>

<http://www.sciencemadesimple.com/projects.html>

## Guidelines on helping your child with their Science Fair Project

Project Step	Helping at the right level:	Going too far:
Asking a question	Discussing with your child whether a project idea seems interesting, scientific and feasible!	Picking an idea and project for your child; a topic not of interest to them will turn into a boring project!
Doing background research	Taking your child to the library; helping your child think of key words for internet searches.	Doing an internet search for your child and printing out articles.
Constructing a prediction	Asking what your child expects to find out and how the prediction relates to an experiment they could do.	Writing the prediction yourself!
Testing the prediction by doing an experiment (the Method)	Assisting your child in finding materials to test; monitoring safety <b>(you should always observe any steps involving heat or electricity)</b> .	Writing the method yourself; doing the experiment, except for potentially risky steps; telling your child what to do step by step.
Analysing data and drawing conclusions	Asking how your child will record the data; reminding your child to tie the data back to the prediction and draw a conclusion.	Creating a spreadsheet and making the graphs yourself, even if your child helps type in values; telling your child what to do step by step.
Communicating your results	What questions might someone ask? (e.g. tell me about your project!) How would your child answer?	Writing the text that appears on the display board; telling your child what the results show.
General Presentation	Assisting your child in finding the materials for the display board, monitoring and assisting your child in preparing their display.	Making the display board for your child, telling your child how to organise their information, determining the colour scheme or any other graphic elements.