

**17<sup>th</sup> February – 5<sup>th</sup> March**  
**Homework**  
**Project: Primary 7 Science Fair**

Over the next **three** weeks we are undertaking a mini science project. This science project will require you to undertake a personal inquiry into something scientific that you are interested in. First pose a research question from an area of science that you would like to find out more about. Examples of questions you might want to research are:

- How big is space?
- What is a black hole?
- How many different species live in the rainforest?
- What species live in the deepest parts of the ocean?

Next you going to try to answer your scientific question. How are you going to answer this question? You will need to undertake some research and possibly even carry out an experiment.

I can report and comment on current scientific news items to develop my knowledge and understanding of topical science.

**SCN 2-20b**

Examples of research areas:

<b>Biology</b>	<b>Chemistry</b>	<b>Physics</b>
<p><b>Biodiversity and interdependence</b></p> <ul style="list-style-type: none"> <li>• living and non-living things</li> <li>• animal/plant behaviour</li> <li>• characteristics, survival and extinction</li> <li>• food chains and webs</li> <li>• growth of plants</li> <li>• benefits of fertilisers</li> </ul>	<p><b>Properties and uses of substances</b></p> <ul style="list-style-type: none"> <li>• the water cycle</li> <li>• water changing state</li> </ul>	<p><b>Energy sources and sustainability</b></p> <ul style="list-style-type: none"> <li>• energy conservation</li> <li>• reducing energy waste</li> <li>• renewable and non-renewable energy sources and their impact</li> </ul>
<p><b>Body systems and cells</b></p> <ul style="list-style-type: none"> <li>• make a model to show understanding and function of body systems e.g. respiratory, digestive, circulatory</li> <li>• demonstrate how sensory organs respond to outside conditions</li> </ul>	<p><b>Chemical changes Earth's materials</b></p> <ul style="list-style-type: none"> <li>• use models to communicate understanding of natural disasters</li> <li>• chemical changes in earth's materials e.g. earthquakes, volcanoes, tsunamis, hurricanes</li> </ul>	<p><b>Forces and electricity and waves</b></p> <ul style="list-style-type: none"> <li>• investigate friction (air resistance, buoyancy, gravity, electrostatic forces)</li> </ul>

<p><b>Micro-organisms</b></p> <ul style="list-style-type: none"> <li>• demonstrate how micro-organisms multiply</li> <li>• demonstrate how they break down material</li> <li>• show how micro-organisms (mould, fungi, virus) are used in treating disease</li> </ul>	<p><b>Materials</b></p> <ul style="list-style-type: none"> <li>• investigating changes to substances e.g. mixing, separating, practical activities</li> </ul>	<p><b>Electricity</b></p> <ul style="list-style-type: none"> <li>• investigate a range of circuits and how they work</li> <li>• build a simple battery using chemical cells</li> </ul>
<p><b>Inheritance</b></p> <ul style="list-style-type: none"> <li>• stages of plant and animal development</li> <li>• exploring characteristics of offspring</li> <li>• inherited/non-inherited characteristics</li> </ul>		<p><b>Vibration and waves</b></p> <ul style="list-style-type: none"> <li>• explore animal communication through vibrations and waves</li> <li>• explore reflections by mixing coloured lights</li> </ul>
		<p><b>Space</b></p> <ul style="list-style-type: none"> <li>• features of solar system</li> <li>• use models to communicate understanding of solar system (size, scale and relative motion)</li> </ul>

Examples of experiments/investigations/enquiry:

- **Conduct a fair test**  
Think about identifying the effect of changing one variable on another whilst attempting to keep the other variables constant.
- **Making observations of over time**  
Think about observing or measuring how one or more variables change over time.
- **Identifying and Classifying**  
Think about the features or tests that help you to distinguish between things.
- **Pattern Seeking**  
Think about observing and recording phenomena, carrying out surveys or collecting data from secondary sources, and then identifying relationships between the data in their findings.
- **Research**  
Think about using secondary sources of evidence to answer your question.

Good luck! We hope you enjoy your Science Project and we can't wait to set up our Science Fair on Thursday 5<sup>th</sup> March! 😊