

## Stage 4 Outline Scheme of Work & Links to Relevant Website Teaching Resources

This SoW is designed to be taught in a spiral manner. Pupils are introduced to each topic 3 times throughout the year, once a term. Each term they will build on their previous knowledge and it will ensure continuity in pupils' learning whilst giving them the opportunity to review prior learning. Or simply teach all 3 blocks together as a single topic then move onto the next topic making your way topic by topic through the scheme over the year.

Topic	Term 1 or Block 1	Term 2 or Block 2	Term 3 or Block 3
<b>Working scientifically</b>	Plan & set up simple experiments that are fair tests that involve equipment such as thermometers and data loggers. Ask relevant questions and draw simple conclusions using correct scientific language.	Make predictions about planned tests and their outcomes. Draw labelled diagrams in presenting evidence. Store results in tables & draw simple conclusions from them. Use <i>standard units</i> correctly. Look for trends, similarities and differences.	Use secondary evidence. Produce bar charts and other forms of tables. Use evidence to suggest improvements for investigations and raise further questions.
<b>Living things and their habitat</b>	Use keys to identify vertebrates; know that vertebrates can be divided into 5 main groups (birds, mammals, fish, reptiles and amphibians). Consider the negative effects of litter in an environment and consider destruction of habitat through development. This could be done by project based learning.	Know that invertebrates can be grouped as snails, slugs worms insects and spiders.  Explore the positive effects of nature reserves.	Study flowering and non flowering plants (ferns and mosses).  Study the negative effects of pollution and deforestation.

<p><b>Animals including humans</b></p>	<p>Recognise teeth in carnivores and herbivores and describe why they are different. Study food chains, identifying producers, predators and prey.</p>	<p>Know the name of organs in the digestive system (limited to stomach, small intestine (skinny one), large intestine, oesophagus and mouth). Structure of Human teeth.</p>	<p>Know the function of the different parts of the digestive system.  Know how teeth can be damaged by sugary food, acid and plaque and how to look after them.</p>
<p><b>States of matter</b></p>	<p>Identify Solids, Liquids and Gases and make simple descriptions for them. eg solids hold their shape; liquids form a pool not a pile and gases escape from an unsealed container.</p>	<p>Ensure pupils can describe solids, liquids, gases and changes in state of water. Pupils could investigate what affects how fast water evaporates.</p>	<p>Study the changes of state of chocolate and measure temp. with a thermometer. The water cycle involves changes in state and rate of evaporation. Pupils could make ice cream or chocolate crispy cakes and refer to changes of state. Investigate the temperature at which different substances melt.</p>
<p><b>Sound</b></p>	<p>Know that sounds are made by vibrations and that the further away the sound is made the lower in volume they become. Use a simple classroom based experiment to show this.</p>	<p>Know how sounds travel through a medium to the ear. Make and play their own instruments (Guitars /drums etc) and conclude that the harder they are plucked/banged the louder they sound. Make ear muffs from different materials and investigate which ones are the best insulators.</p>	<p>Explore the pattern between pitch of an object and the object itself (use elastic bands of different length or width and pluck across margarine tubs). The thinner the strings the higher the pitch.  Reinforce the pattern between volume and strength of vibrations.</p>

<b>Electricity</b>	Identify common appliances that use electricity from their homes or in school. Build a simple circuit and draw them accurately. (circuit symbols are covered in year 6).  Know how to work safely with electricity.	Recognise the effect of an open and closed switch and relate this to a closed circuit.  Note how increasing the number of batteries in a circuit leads to brighter bulbs.	Identify good conductors that could be used in a circuit.
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## Useful Website Links – Mainly TES Resources

The click through links below take you to some excellent teaching resources relating to the topics taught at this Stage. **These are not part of our package of resources and are not being sold to you....**but they are free to use to teachers. NB You need to subscribe (it's free) to the TES website to use them eg. TES Resources are first class.

### Useful link to I Can Do statements for the New Curriculum

<http://www.tes.co.uk/teaching-resource/Science-and-quot-I-can-and-quot-statements-for-2014-curriculum-6406864/>

### Working Scientifically

<http://www.tes.co.uk/teaching-resource/Melting-ice-A-fair-test-6135685/>

### Animals including Animals

<http://www.tes.co.uk/teaching-resource/Digestive-system-powepoint-6002781/>

<http://www.tes.co.uk/teaching-resource/Carnivores-omnivores-and-herbivores-Venn-diagram-6355183/>

<http://www.tes.co.uk/teaching-resource/Smart-Mouth-6024011/>

### **Living Things & Their Habitats**

<http://www.tes.co.uk/teaching-resource/Vertebrate-Invertebrate-powerpoint-6032067/>

<http://www.tes.co.uk/teaching-resource/Food-Webs-6173236/>

### **States of Matter**

<http://www.tes.co.uk/teaching-resource/Solids-Liquids-and-amp-Gases-3002871/>

<http://www.tes.co.uk/teaching-resource/Solids-Liquids-and-Gases-Dissolving-6335262/>

<http://www.tes.co.uk/teaching-resource/Materials-Solids-Liquids-and-amp-Gases-6056208/>

### **Sound**

<http://www.tes.co.uk/teaching-resource/Sound-6424594/>

### **Electricity**

<http://www.tes.co.uk/teaching-resource/Electricity-Circuits-and-conductors-6329831/>