Sedbergh Primary School

Science Subject Progression Grid

Science - Curriculum Subject Statement			
Core Values	**Early Years Foundation Stage**	**Key Stage 1**	**Key Stage 2**
Connection, Aspiration & Health	Children are provided with many opportunities to experiment, ask questions and test their ideas. Children investigate a variety of materials and are able to talk about similarities and difference in relation to materials and living things. Children make observations of animals and plants and are able to explain why some things occur and change. Children know the importance of good health and one of our classroom rules is to be healthy.	Key Stage 1 children will begin to ask questions to feed their curiosity and they will gain confidence in the knowledge that questioning is a positive and vital aspect of science. They will start to create tests to help answer their questions. We want children to develop a curiosity about (and begin to understand) how processes are working around them.	Through our science curriculum, we want children to develop an excellent understanding of how phenomena in our world work. Key Stage 2 children will begin to link key scientific concepts together, understanding how knowledge and ideas build on one another. Children will be equipped to test a range of scientific hypothesis, ask scientific questions about our world and also respond critically to…

Purpose of study

A high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science. Through building up a body of key foundational knowledge and concepts, pupils should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.

National Curriculum Subject Aims

- ✓ The national curriculum for science aims to ensure that all pupils:
- ✓ develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics
- ✓ develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them
- ✓ are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.

National Curriculum Subject Content

Key Stage 1						
Working Scientifically During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content: • asking simple questions and recognising that they can be answered in different ways • observing closely, using simple equipment • performing simple tests • identifying and classifying • using their observations and ideas to suggest answers to questions • gathering and recording data to help in answering questions.	**Year 1**	Plants	Animals, including humans	Everyday materials	Seasonal changes
	Year 2	Living things and their habitats	Plants	Animals, including humans	Uses of everyday materials

Lower Key Stage 2						
Working Scientifically During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content: • asking relevant questions and using different types of scientific enquiries to answer them • setting up simple practical enquiries, comparative and fair tests • making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers • gathering, recording, classifying and presenting data in a variety of ways to help in answering questions • recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables • reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions • using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions • identifying differences, similarities or changes related to simple scientific ideas and processes • using straightforward scientific evidence to answer questions or to support their findings.	**Year 3**	Plants	Animals including humans	Rocks	Light	Forces and Magnets
	Year 4	Living things and their habitats	Animals, including humans	States of matter	Sound	Electricity

Upper Key Stage 2						
Working Scientifically During years 5 and 6, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content: • planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary • taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate • recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs • using test results to make predictions to set up further comparative and fair tests • reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations • identifying scientific evidence that has been used to support or refute ideas or arguments.	**Year 5**	Living things and their habitats	Animals including humans	Properties and changes of materials	Earth and space	Forces
	Year 6	Living things and their habitats	Animals including humans	Evolution and inheritance	Light	Electricity

Year Group/Class	Elder	Spruce Years 1 & 2 Cycle A Cycle B	Ash Years 3 & 4 Cycle A Cycle B	Beech / Oak Years 5 & 6 Cycle A Cycle B
Autumn 1	**Materials** **Seasonal Changes** ***Seasonal changes – Autumn: Home Sweet Home***	**Animals including Humans 1** **Seasonal Changes**	**Forces and Magnets** **States of Matter**	**Evolution and Inheritance** **Material and their Properties**
Autumn 2	**continued**	**Animals including Humans 2** **Living things and their habitats 1**	**Forces and Magnets** **Sound**	**The Human Body – Animals including humans** **Famous Scientists**
Spring 1	**Life cycles** **Seasonal changes** ***Seasonal Changes – Winter & Spring***	**Everyday materials 1** **Living things and their habitats 2**	**Animals including Humans 1** Body and nutrition **Animals including humans 2** Digestion, teeth and food chains	**Living Things and their Habitats** ***Changes in the Human Body (puberty)**
Spring 2	**continued**	**Everyday materials 2** **Famous scientists/ inventors**	**Rocks** **Animals including humans 2 continued** Digestion, teeth and food chains	**Micro-organisms** **Living Things and their Habitats**

Summer 1	**Plants** **Seasonal changes** ***Seasonal Changes – Summer*** ***All Creatures Great and Small*** ***What a wonderful world***	**Plants 1** **Light and Dark** **(extra unit)**	**Light** **All Living things** Grouping Animals Classification	**Light** **Space**
Summer 2	**continued**	**Plants 2**	**Plants** **Electricity**	**Electricity** **Forces**