Science

The following lessons offer ways to use an interactive whiteboard to teach science, using different whiteboard tools to target different learning styles. Using an interactive whiteboard gives teachers and children a unique opportunity to project, annotate and save large-scale images.

In science lessons, the whiteboard can be used to aid practical activities such as investigations. It can also display experiments and tests that would normally not be considered safe to perform in a classroom. The use of peripherals, such as the digital microscope or the digital camera, adds an extra dimension to lessons: organisms can be observed at close proximity and habitats can be photographed for children to explore.

Using a combination of tools, the whiteboard can assist the children's structured written work: word banks, photographs and video clips can be projected on to the whiteboard as an aide-mémoire; children's results can be shared using data-handling programs and resultant bar charts or line graphs can be projected to encourage class discussions and analysis.

Lesson title	Objectives	What children should know	Cross-curricular links
Lesson 1: Similar skeletons	QCA Unit 4A 'Moving and growing' • That humans (and some other animals) have bony skeletons inside their bodies and to raise questions about different bony skeletons • To make and record relevant observations of bones and skeletons.	• That our skeletons help us to move and that they support our bodies.	**ICT** QCA Unit 4C 'Branching databases'
Lesson 2: Skeleton investigation	**QCA Unit 4A** 'Moving and growing' • To learn that human skeletons are internal and grow as humans grow. • To identify a question, make a prediction and test it. • To decide and make a body measurement. • To use bar charts to present measurements. • To say what the evidence shows and whether it supports the prediction.	• That our skeletons help us to move. • How to take accurate measurements.	**Mathematics** NNS: Use, read and write metric units; suggest suitable units and measuring equipment to measure length; solve problems by collecting, organising, representing and interpreting data in tables, charts, graphs and diagrams.
Lesson 3: Supporting skeletons	**QCA Unit 4A** 'Moving and growing' • To learn that the skeleton supports the body.	• That a skeleton protects the soft, delicate parts of an organism.	**English** NLS Term 1 S3: Identify the use of powerful verbs. NLS Term 1 S4: To identify adverbs.
Lesson 4: Muscles and bones	**QCA Unit 4A** 'Moving and growing' • To learn that animals with skeletons have muscles attached to the bones. • To learn that a muscle has to contract (shorten) to make a bone move. • To learn that muscles work hard when you exercise. • To make observations and comparisons relating to exercise and rest.	• That bones do not move freely on their own.	**PE** PoS (4a) How exercise affects the body in the short term; (4b) To warm up for different activities.
Lesson 5: Different organisms	**QCA Unit 4B** 'Habitats' • To group organisms according to observable features. • To use keys to identify plants or animals.	• That groups of organisms share similarities.	**ICT** QCA Unit 4C 'Branching databases'