

LKS2 Cycle B
Working Scientifically

Scientific enquiry	Practical investigation	Communicating	Interpreting evidence
<p>Responds to suggestions of how to answer questions about the world around them, and begins to raise their own relevant questions.</p> <p>Is able to use suggested methods of enquiry.</p> <p>With support recognises when and how secondary sources should be used.</p> <p>Raises their own relevant questions about the world around them.</p> <p>Uses different types of scientific enquiry to answer they raise.</p> <p>Recognises when and how secondary sources should be used.</p>	<p>With support, discusses the most appropriate type of scientific enquiry they might use to answer questions.</p> <p>Understands what a simple fair test is, and with support helps to set it up.</p> <p>Begins to look for patterns and with help decides what data to collect to identify them.</p> <p>With support helps to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used.</p> <p>Learns how to use new equipment, such as data loggers, appropriately.</p> <p>With help collects data from their own observations and measurements using notes, simple tables and standard units.</p> <p>Starts to make their own decisions about the most appropriate type of scientific enquiry they might use to answer questions.</p> <p>Recognises when a simple fair test is necessary and helps to decide how to set it up.</p> <p>Begins to look for patterns and decides what data to collect to identify them.</p> <p>Makes some decisions about what observations to make, how long to make them for and the type of simple equipment that might be used.</p> <p>Uses a range of equipment, including thermometers and data loggers appropriately.</p> <p>Collect data from their own observations and measurements using notes, simple tables and standard units.</p>	<p>Talks about how the data may be recorded.</p> <p>With support talks about criteria for grouping, sorting and classifying. Uses simple keys.</p> <p>Beginning to use scientific language to discuss their ideas and communicate their findings.</p> <p>With support is beginning to use some of the following methods to record their findings; drawings, labelled diagrams, keys, bar charts and tables.</p> <p>Beginning to report findings using basic oral and written explanations, displays or presentations of results.</p> <p>Beginning to draw and express some conclusions.</p> <p>Helps to make decisions about how to record and analyse the data.</p> <p>Gathers, records, classifies and presents data in a variety of ways to help in answering questions.</p> <p>Uses relevant scientific language to discuss their ideas and communicate their findings in ways that are appropriate for different audiences.</p> <p>Records findings using a range of methods including drawings, labelled diagrams, keys, bar charts and tables.</p> <p>Reports on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p>	<p>With help, looks for straightforward changes, patterns, similarities and differences in their data in order to draw simple conclusions.</p> <p>With support, begins to identify new questions arising from the data. With help makes predictions for new values with or beyond the data they have collected.</p> <p>With support discusses the success of their working methods.</p> <p>With help looks for changes, patterns, similarities and differences in their data in order to draw simple conclusions.</p> <p>Uses straightforward scientific evidence to answer questions and support their findings.</p> <p>With support, identifies new questions arising from the data, and makes predictions for new values within or beyond the data they have collected.</p> <p>Finds ways of improving what they have already done.</p>

LKS2 Cycle B
Knowledge and Understanding

Violent Earth (Aut 1 & 2)	Invent! (Spr 1 & 2)	Smashing Saxons (Sum 1)	Smashing Saxons (Sum 2)
Rocks	Electricity	Animals, including humans	Living things and their habitats
<p>Compares and groups together different kinds of rocks on the basis of their appearance and simple physical properties.</p> <p>Describes in simple terms how fossils are formed when things that have lived are trapped within rock.</p> <p>Recognises that soils are made from rocks and organic matter.</p> <p><i>Could work scientifically by: observing rocks, including those used in buildings and gravestones, and exploring how and why they might have changed over time.</i></p>	<p>Identifies common appliances that run on electricity.</p> <p>Constructs a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.</p> <p>Identifies whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery.</p> <p>Recognises that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.</p> <p>Recognises some common conductors and insulators, and associate metals with being good conductors.</p> <p><i>Could work scientifically by: observing patterns, for example that bulbs get brighter if ore cells are added, that metals tend to be conductors of electricity, and that some materials can and some cannot be used to connect across a gap in a circuit.</i></p> <p style="text-align: center;">Forces and magnets</p> <p>Compares how things move on different surfaces.</p> <p>Notices that some forces need contact between 2 objects, but magnetic forces can act at a distance.</p> <p>Observes how magnets attract or repel each other and attract some materials and not others.</p> <p>Compares and groups together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials.</p> <p>Describes magnets as having 2 poles.</p> <p>Predicts whether 2 magnets will attract or repel each other, depending on which poles are facing.</p>	<p>Identify that animals, including humans, need the right types and amount of nutrition and that they cannot make their own food; they get nutrition from what they eat.</p> <p>Identify that humans and some other animals have skeletons and muscles for support, protection and movement.</p> <p>Explore ideas about what would happen if humans did not have skeletons.</p> <p><i>Could work scientifically by identifying and grouping animals with and without skeletons and observing and comparing their movement.</i></p> <p>Describe the simple functions of the basic parts of the digestive system in humans.</p> <p>Identify the different types of teeth in humans and their simple functions.</p> <p>Construct and interpret a variety of food chains, identify producers, predators and prey.</p> <p><i>Could work scientifically by comparing the teeth of carnivores and herbivores and suggest reasons for the differences.</i></p>	<p>Recognises that living things can be grouped in a variety of ways.</p> <p>Explores and uses classification keys to help group, identify and name a variety of living things in their local and wider environment.</p> <p>Recognises that environments can change and that this can sometimes pose dangers to living things.</p>