

KEY STAGE 2

Knowledge, Skills and Understanding breakdown for Working Scientifically		
Year 3		
Planning	Obtaining and presenting evidence	Considering evidence and evaluating
<p>Can they use different ideas and suggest how to find something out?</p> <p>Can they make and record a prediction before testing?</p> <p>Can they plan a fair test and explain why it is fair?</p> <p>Can they set up a simple fair test to make comparisons?</p> <p>Can they explain why they need to collect information to answer a question?</p>	<p>Can they measure using different equipment and units of measure?</p> <p>Can they record their observations in different ways? (labelled diagrams, charts etc)</p> <p>Can they describe what they have found using scientific words?</p> <p>Can they make accurate measurements using standard units?</p>	<p>Can they explain what they have found out and use their measurements to say whether it helps to answer their question?</p> <p>Can they use a range of equipment (including a data-logger) in a simple test?</p>
Year 3 (Challenging)		
Planning	Obtaining and presenting evidence	Considering evidence and evaluation
<p>Can they record and present what they have found using scientific language, drawings, labelled diagrams, bar charts and tables?</p>	<p>Can they explain their findings in different ways (display, presentation, writing)?</p> <p>Can they use their findings to draw a simple conclusion?</p> <p>Can they suggest improvements and predictions for further tests?</p>	<p>Can they suggest how to improve their work if they did it again?</p>

Knowledge, Skills and Understanding breakdown for Life Processes and Living Things

Year 3

Animals, including humans	Plants
<p>Can they explain the importance of a nutritious balanced diet?</p> <p>Can they describe how nutrients, water and oxygen are transported within animals and humans?</p> <p>Can they describe and explain the skeletal system of a human?</p> <p>Can they describe and explain the muscular system of a human?</p>	<p>Can they identify and describe the functions of different parts of plants? (roots, stem, leaves and flowers)</p> <p>Can they identify what a plant needs for life and growth?</p> <p>Can they describe the ways in which nutrients, water and oxygen are transported within plants?</p> <p>Can they explain how the needs and functions of plant parts vary from plant to plant e.g. insect and wind pollinated plants?</p>

Year 3 (Challenging)

Animals, including humans	Plants
<p>Can they explain how the muscular and skeletal systems work together to create movement?</p> <p>Can they classify living things and non-living things by a number of characteristics that they have thought of?</p> <p>Can they explain how people, weather and the environment can effect living things?</p> <p>Can they explain how certain living things depend on one another to survive?</p>	<p>Can they classify a range of common according to many criteria (environment found, size, climate required, etc.)?</p> <p>Can they explore the role of flowers in the life cycle of flowering plants. Including pollination, seed formation and speed dispersal?</p>

Knowledge, Skills and Understanding breakdown for Materials and their Properties

Year 3

Changing, classifying and grouping materials

Rocks

Can they sort the same group of materials in different ways?
 Can they sort materials by a number of different criteria?
 Can they suggest materials which could be used for specific jobs?
 Can they set up a simple test to explore the differences between materials?
 Can they set up a test to explore whether or not materials are attracted to magnets?
 Can they set up a test to explore whether or not a material will float or sink?
 Can they compare the properties of materials in different situations e.g. floating in salty water, magnetism in water?
 Can they describe what it means to reverse a change?
 Can they describe which changes can be reversed?
 Can they describe which changes cannot be reversed?

Can they compare and group together different rocks based on their simple physical properties?
 Can they describe and explain how different rocks can be useful to us?
 Can they describe and explain the difference between sedimentary and igneous rocks, considering the way they are formed?
 Can they describe how fossils are formed within sedimentary rock?

Year 3 (Challenging)

Changing, classifying and grouping materials

Rocks

Can they explain different ways that they can sort the same group of materials?
 Can they sort materials by a number of different criteria and explain their reasons?
 Can they explain why certain materials are used for specific jobs?

Can they classify igneous and sedimentary rocks?
 Can they begin to relate the properties of rocks with their uses?

Knowledge, Skills and Understanding breakdown for Physical Processes

Year 3

Forces and magnets

Light

Can they observe that magnetic forces can be transmitted without direct contact?
 Can they talk about how some magnets attract or repel each other?
 Can they classify which materials are attracted to magnets?
 Can they describe the speed and direction of moving objects?

Can they explain the difference between transparent, translucent and opaque?
 Can they compare the brightness and colour of lights?
 Can they explain how bulbs work in an electrical circuit?
 Can they explain what dark is using words like shadow?

Year 3 (Challenging)

Forces and magnets

Light

Can they investigate the strengths of different magnets and find fair ways to compare them?
 Can they explain why an object will move faster if it is rolling down a hill or a slope?

Can they explain why lights need to be bright or dimmer according to need?
 Can they make a bulb go on or off?
 Can they say what happens to the electricity when more batteries are added?
 Can they explain why their shadow changes when the light source is moved closer or further from the object?