

Year 5 – Earth and Space

Recall	<p><b>Light</b></p> <p>Recognise that they need light in order to see things and that dark is the absence of light. Notice that light is reflected from surfaces.</p> <p>Recognise that light from the sun can be dangerous and that there are ways to protect their eyes.</p> <p>Recognise that shadows are formed when the light from a light source is blocked by an opaque object.</p> <p>Find patterns in the way that the size of shadows changes.</p> <p><b>Vocabulary:</b> light, dark, pupil, source, UV light, natural light, manmade light, dangers, protection, shadow, opaque, transparent, translucent, reflection.</p>
End Point Disciplinary Knowledge (National Curriculum Statements)	<p>Describe the movement of the Earth, and other planets, relative to the Sun in the solar system.</p> <p>Describe the movement of the Moon relative to the Earth.</p> <p>Describe the Sun, Earth, and Moon as approximately spherical bodies.</p> <p>Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky</p>
Sequence of Learning / Contextual Knowledge (Lesson ideas)	<p>Learn the order of the planets in the Solar System</p> <p>Understand the Earth, as well as other planets, orbits the Sun</p> <p>Discover that rotation of the Earth controls day and night</p> <p>Explore the phases of the moon</p> <p>Understand how solar eclipses occur</p>
Key Vocabulary	moon, Sun, Mercury, Venus, Earth, Mars, Jupiter Saturn, Uranus, Neptune, solar system, rotation, orbit, celestial body, star, satellite
Coverage Within School	Year 1
Teacher Assessment	
Possible Misconceptions	
Class Teacher Notes	

Year 5 - Forces

Recall	<p><b>Rocks</b></p> <p>Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.</p> <p>Describe in simple terms how fossils are formed when things that have lived are trapped within rock.</p> <p>Recognise that soils are made from rocks and organic matter.</p> <p><b>Vocabulary:</b> mesomorphic, igneous, sedimentary, fossils, soils, organic matter, sedimentation, magma, lava, permeable, impermeable, fossilisation, erosion, palaeontology</p>
<p>End Point</p> <p><b>Disciplinary Knowledge</b></p> <p>(National Curriculum Statements)</p>	<p>Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.</p> <p>Identify the effects of air resistance, water resistance and friction that act between moving surfaces.</p> <p>Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.</p>
<p>Sequence of Learning / Contextual Knowledge</p> <p>(Lesson ideas)</p>	<p>Identify forces that act on objects</p> <p>Explore the effect that gravity has on objects and how it was discovered</p> <p>Investigate air resistance</p> <p>Explore effects of water resistance</p> <p>Investigate the effects of friction</p> <p>Explore and design a simple mechanism</p>
Key Vocabulary	air resistance, friction, gravity, levers, pulleys, gears, water resistance, surfaces, Newton
Coverage Within School	Year 3
Teacher Assessment	
Possible Misconceptions	
Class Teacher Notes	

Year 5 – Living Things and Their Habitats

Recall	<p><b>Sound</b></p> <p>Identify how sounds are made, associating some of them with something vibrating            Recognise that vibrations from sounds travel through a medium to the ear.            Find patterns between the pitch of a sound and features of the object that produced it            Find patterns between the volume of a sound and the strength of the vibrations that produced it.            Recognise that sounds get fainter as the distance from the sound source increases.</p> <p><b>Vocabulary:</b> vibrations, pitch, volume, higher, lower, travel, loud, quiet, soundwave, ear canal, inner ear, amplitude, vacuum, eardrum, particles</p>
End Point Disciplinary Knowledge  (National Curriculum Statements)	<p>Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.            Describe the life process of reproduction in some plants and animals</p>
Sequence of Learning / Contextual Knowledge  (Lesson ideas)	<p>Explore sexual reproduction in plants            Explore life cycle of mammals in different habitats            Compare and describe different life cycles            Explore metamorphosis</p>
Key Vocabulary	mammal, amphibian, insect, bird, lifecycle, eggs, larva, pupa, reproduction, tadpole, chrysalis
Coverage Within School	Year 2 Year 4 Year 6
Teacher Assessment	
Possible Misconceptions	
Class Teacher Notes	

Year 5 - Animals including Humans

Recall	<p><b>Electricity</b></p> <p>Identify common appliances that run on electricity.</p> <p>Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.</p> <p>Identify 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>Recognise 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>Recognise some common conductors and insulators, and associate metals with being good conductors.</p> <p><b>Vocabulary:</b> appliances, conductors, insulators, mains, battery, circuit, complete, incomplete, cell, wires, bulb, switch, buzzers, simple circuit, renewable</p>
End Point Disciplinary Knowledge  (National Curriculum Statements)	Describe the changes as humans develop to old age.
Sequence of Learning / Contextual Knowledge  (Lesson ideas)	<p>Explain what gestation periods are for different animals</p> <p>Describe changes to humans as they develop from fertilisation to birth</p> <p>Explain how babies grow and develop into children.</p> <p>Describe main changes to occur during puberty</p>
Key Vocabulary	lifecycles, puberty, growth, gestation periods, pregnancy, fertilise, reproduction, sperm, young.
Coverage Within School	<p>Year 1</p> <p>Year 2</p> <p>Year 3</p> <p>Year 4</p> <p>Year 6</p>
Teacher Assessment	
Possible Misconceptions	
Class Teacher Notes	

Year 5 – Properties and Changes of Materials

<p>Recall</p>	<p><b><u>Living Things and Their Habitats</u></b>                  Recognise that living things can be grouped in a variety of ways.                  Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.                  Recognise that environments can change and that this can sometimes pose dangers to living things.  <b>Vocabulary-</b> organisms, life processes, respiration, sensitivity, reproduction, excretion, nutrition, habitat, environment, endangered species, classification, vertebrates, invertebrates, characteristics.</p> <p><b><u>Animals including Humans</u></b>                  Describe the simple functions of the basic parts of the digestive system in humans                  Identify the different types of teeth in humans and their simple functions                  Construct and interpret a variety of food chains, identifying producers, predators and prey.  <b>Vocabulary-</b> digest, oesophagus, stomach, small intestine, large intestine, rectum, herbivore, carnivore, omnivore, producer, predator, prey</p>
<p>End Point  <b>Disciplinary Knowledge</b>                  (National Curriculum Statements)</p>	<p>Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets.                  Know that some materials will dissolve in liquid to form a solution and describe how to recover a substance from a solution.                  Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.                  Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.                  Demonstrate that dissolving, mixing and changes of state are reversible changes.                  Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.</p>
<p>Sequence of Learning /                  Contextual Knowledge                  (Lesson ideas)</p>	<p>Classify materials according to their properties                  Investigate thermal conductors and insulators                  Investigate electrical conductors                  Discover materials that can dissolve                  Explore different processes to separate mixtures                  Identify and observe irreversible chemical changes.</p>
<p>Key Vocabulary</p>	<p>properties, hardness, solubility, transparency, insulator, conductor, dissolve, thermo insulators, solid, liquid, gas, reversible, permeable, non-permeable, flammable, non-flammable, translucent, magnetic</p>
<p>Coverage Within School</p>	<p>Year 2                  Year 4</p>
<p>Teacher Assessment</p>	
<p>Possible Misconceptions</p>	
<p>Class Teacher Notes</p>	