

# Year 5 Overview

	Key Objectives (knowledge) Physics	WS Key Areas	Vocabulary
Living things and their habitats	<ul style="list-style-type: none"> <li>describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</li> <li>describe the life processes of reproduction in some plants and animals (e.g. To know the lifecycle of a flowering plant; How seeds are formed (pollen from male organ fertilises the ovum)</li> <li>Identify the main parts on a flowering plant, including those involved in the reproductive process</li> </ul>	<p>ENQUIRY TYPES:</p> <ul style="list-style-type: none"> <li>Using a wide range of secondary sources of information</li> <li>Grouping &amp; classifying</li> </ul> <p>WS KEY SKILLS:</p> <ul style="list-style-type: none"> <li>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</li> <li>Identifying scientific evidence that has been used to support or refute ideas or arguments</li> </ul>	<p>life cycle, birth, growth, reproduction, metamorphosis, aging, death, animal, mammal, amphibian, insect, bird, elephant, toad, bumblebee, blue tit, life cycle, hedgehog, bat, polar bear, mountain gorilla, cubs, pups, hibernate, nocturnal, marsupial, life cycle, amphibian, toad, newt, salamander, tree frog, metamorphosis, gills, cold blooded, life cycle, insect, species, ladybird, butterfly, beetle, dragonfly, head, thorax, abdomen, antennae, metamorphosis, egg, larva, pupa, cocoon, adult, life cycle, bird, thrush, peregrine falcon, ostrich, emperor penguin, chicken, breeding cycle, brood, hatch, fledge, life cycle, mammal, amphibian, insect, bird, prey, predator, reproduce, habitat, environment, metamorphosis, caterpillar, pupa, tadpole, butterfly, elephant, frog, mature, immature, reproduction, reproduce, flower, organ, carpel, stamen, anther, filament, pollen, seeds, seed head, berry, fruit, pollinator, pollination, fertilisation, sexual, reproduce, propagate, stem, leaf and root cuttings, runners, tubers, bulbs and rhizomes, asexual, vegetative, asexual,</p>

<p style="text-align: center;"><b>Sound</b></p>	<ul style="list-style-type: none"> <li>• identify how sounds are made, associating some of them with something vibrating</li> <li>• recognise that vibrations from sounds travel through a medium to the ear</li> <li>• find patterns between the pitch of a sound and features of the object that produced it</li> <li>• find patterns between the volume of a sound and the strength of the vibrations that produced it</li> <li>• recognise that sounds get fainter as the distance from the sound source increases</li> </ul>	<p><b>ENQUIRY TYPE:</b></p> <ul style="list-style-type: none"> <li>• Carrying out simple comparative &amp; fair tests</li> <li>• Noticing patterns/pattern seeking</li> </ul> <p><b>WS KEY SKILLS:</b></p> <ul style="list-style-type: none"> <li>• Identifying differences, similarities or changes related to simple scientific ideas and processes</li> <li>• Recording findings using drawings and labelled diagrams</li> <li>• Using straightforward evidence to answer questions or to support their findings</li> <li>• Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions diagrams</li> <li>• Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including data logger</li> <li>• Using results to draw conclusions</li> <li>• make predictions for new values, suggest improvements and raise further questions</li> </ul>	<p>strike, blow, shake, pluck, vibration, vibrate, solid, air, particles, volume, sound, sound source, faint, fainter, high, low, taut, tautness, stretch, tighten</p>
<p style="text-align: center;"><b>Animals including humans</b></p>	<ul style="list-style-type: none"> <li>• describe the changes as humans develop to old age.</li> <li>• compare reproduction in plants with reproduction in animals.</li> </ul>	<p><b>ENQUIRY TYPES COVERED:</b></p> <ul style="list-style-type: none"> <li>• Grouping &amp; classifying</li> <li>• Finding things out using a wide range of secondary sources of information</li> <li>• Noticing patterns/pattern seeking</li> </ul> <p><b>WS KEY SKILLS:</b></p> <ul style="list-style-type: none"> <li>• 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</li> <li>• Identifying scientific evidence that has been used to support or refute ideas or arguments</li> </ul>	<p>reproduction, reproduce, flower, organ, carpel, stamen, anther, filament, pollen, seeds, seed head, berry, fruit, pollinator, pollination, fertilisation, sexual, asexual, propagate, stem, leaf and root cuttings, runners, tubers, bulbs and rhizomes, asexual, vegetative, gender, male, female, sex, sexual, asexual, metamorphosis, mate, female, male, sexual, sperm, pregnant, give birth, young, pup, calf, foal, chick, hatch, fledge, fledgling, life cycle, birth, growth, reproduction, ageing, death, baby, toddler, teenager, adult, adulthood, childhood, pregnancy, gestation, puberty, mammal, puberty, reproduction, genitals, vagina, pubic hair, underarm hair, menstruation, period, eggs, breasts, hips, grow, shape, sweat, hygiene, spots, mood</p>

<b>Earth and Space</b>	<ul style="list-style-type: none"> <li>• describe the movement of the Earth and other planets, relative to the Sun in the solar system <ul style="list-style-type: none"> <li>➤ <i>It takes the Earth 1 year to orbit the Sun once</i></li> <li>➤ <i>The Moon takes 28 days to orbit the Earth once</i></li> </ul> </li> <li>• describe the movement of the Moon relative to the Earth <ul style="list-style-type: none"> <li>➤ <i>The different appearances of the Moon over 28 days provides evidence for a 28 day cycle</i></li> </ul> </li> <li>• describe the Sun, Earth and Moon as approximately spherical bodies and know their relative sizes.</li> <li>• use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky</li> </ul>	<p><b>ENQUIRY TYPES:</b></p> <ul style="list-style-type: none"> <li>• Finding things out using a wide range of secondary sources of information</li> <li>• Noticing patterns/pattern seeking</li> <li>• Observing changes over time</li> </ul> <p><b>WS KEY SKILLS:</b></p> <ul style="list-style-type: none"> <li>• Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, and bar and line graphs</li> <li>• Reporting and presenting findings from enquiries, including conclusions, causal relationships of and degree of trust in results, in oral and written forms such as displays and other presentations</li> <li>• Taking measurements, using a wide range of scientific equipment, with increasing accuracy and precision, and taking repeat readings when appropriate.</li> <li>• Identifying scientific evidence that has been used to support or refute ideas or arguments</li> <li>• Using test results to make predictions to set up further comparative and fair tests.</li> </ul>	<p>asteroid, crescent, Earth, galaxy, Jupiter, Mars, Mercury, Milky Way, Moon, orbit, planet, Saturn, solar system, star, Sun, sunrise, sunset, Neptune, telescope, Uranus, Venus, axis, dawn, dusk, horizon, rotate, spin, sunrise, sunset, autumn, axis, equinox, hemisphere, northern, North Pole, orbit, rotation, solstice, southern, South Pole, spring, summer, sunrise, sunset, temperature, tilt, winter, crescent, gibbous, orbit, the Earth, Full Moon, illuminate, lunar month, Moon, New Moon, reflect, waning, waxing</p>
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Properties of Materials

- Describe, compare and group materials together, according to whether they are solids, liquids or gases
- observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius ( $^{\circ}\text{C}$ )
- identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature

ENQUIRY TYPES:

- Grouping & classifying
- Observing changes over time
- Carrying out comparative and fair tests
- Finding things out using secondary sources of information

WS KEY SKILLS:

- Identifying differences, similarities or changes related to scientific ideas and processes
- Setting up simple practical enquiries, comparative and fair tests
- Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
- Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data logger
- reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- Using straightforward scientific evidence to answer questions or to support their findings
- Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables

solid, liquid, hard, soft, pour, flow, pile, pool, surface, horizontal, runny, viscous, transparent, opaque, sticky, grain, powder, force, ice, water, melt, observe, measure, fair test, variable, shape, size, temperature, solid, liquid, melt, melting, freeze, freezing, solidify, solidifying, heating, cooling, states of matter, change of state, temperature, melting point, freezing point, process, gas, air, carbon dioxide, helium, oxygen, bubbles, empty, evaporate, wind, variable, control, vapour