Year 3 Overview

	Key Objectives (knowledge) Physics	WS Key Areas	Vocabulary
Light	• Recognise that shadows are formed when the light from a light source is blocked by an opaque object • Recognise that light from the sun can be dangerous and that there are ways to protect their eyes • Notice that light is reflected from surfaces	ENQUIRY TYPES: • Noticing patterns/pattern seeking • Grouping & classifying • Carrying out comparative and fair tests WS KEY SKILLS: • Setting up simple practical enquiries, comparative and fair tests • Identifying differences, similarities or changes related to simple scientific ideas and processes • Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions • Using results to draw simple conclusions, make predictions for new values • making accurate measurements using standard units, using a range of equipment, for example thermometers and data loggers	Bright, light, dark, black, night, day, reflect, reflective Torch, warning light, sun, candle, lantern, dim Dark/darker/darkest Bright/brighter/brightest Mirror, eye
Magnets	• Notice that magnetic forces can act at a distance • observe how magnets attract or repel each other and attract some materials and not others • compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials • describe magnets as having two poles • predict whether two magnets will attract or repel each other, depending on which poles are facing	ENQUIRY TYPES: • Grouping & Classifying • Comparative & fair tests WS KEY SKILLS: • Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions • Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables • Making systematics and careful observations	magnet, attracts, magnetic material, non-magnetic material, metal, non-metal, repel, north pole, south pole, like poles

Materials	• To compare materials in terms of hardness/strength/flexibility etc • That the same material can be used to make different objects • That materials often change when they are heated and cooled • Know that some materials are electrical and thermal insulators • Know that some materials are electrical and thermal conductors	ENQUIRY TYPES: • Grouping & classifying • Simple comparative & fair tests WS KEY SKILLS: • ask relevant questions. • set up simple practical enquiries, comparative and fair tests. • make accurate measurements using standard units, using a range of equipment, for example thermometers and data loggers. • gather, record, classify and presenting data in a variety of ways to help in answering questions. • record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables. • report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. • use results to draw simple conclusions and suggest improvements, new questions and predictions for setting up further tests • identify differences, similarities or changes related to simple scientific ideas and processes.	All words from Y1 & Y2 curriculum plus: Strong, hard, flexible, transparent, absorbent Materials shape suitability solid changes properties heat insulators conductors forces squashing bending twisting stretching reflective similarities differences wood metal plastic glass brick rock paper cardboard uses
Animals including humans	• Identify that animals, including humans, need the right amount and types of nutrition, and • Animals and humans cannot make their own food; they get nutrition from what they eat • Identify the different types of teeth in humans and their simple functions	ENQUIRY TYPES COVERED: • Grouping and classifying • Finding things out using secondary sources of information WS KEY SKILLS: • Asking relevant questions • Identifying differences, similarities or changes related to simple scientific ideas and processes • Gathering, recording, classifying and presenting data in a variety of ways to help answer questions • Making systematic and careful observations	Feed, feeding, growth, stay alive, survive, food, protection, shelter, exercise, movement, food, nutrition, balanced diet, nutrients, carbohydrates, protein, fat, roughage (fibre), water, dairy, fruits, vegetables, meat, Vegetables, meat, fish, sugars, starches, fruit, fats, proteins, vitamins, minerals, Incisor, canine, molar, Diet, root, decay carbohydrates, proteins, roughage, fats, sugars, vitamins, minerals, dairy, fruits, vegetables

Plants	• identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers • explore the requirements of plants for life and growth (air, light, water, nutrients from soil, room to grow) and how they vary from plant to plant (*Describes how plants are affected by changes to their growing conditions).* • investigate the way water is transported within plants • explore the part that flowers play in the lifecycle of flowering plants, including pollination, seed formation and seed dispersal	ENQUIRY TYPE: • Grouping & classifying • Carrying out comparative & fair tests • Observing over time • Using secondary sources of information • WS KEY SKILLS: • asking relevant questions and using different types of scientific enquiries to answer them • Identifying differences, similarities or changes related to simple 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 • Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables • Using results to draw simple conclusions and suggest improvements, new questions and predictions for setting up further tests • Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions	plant, roots, stem, trunk, leaf/leaves, flower, function, features, leaflet, stalk, veins, surface, edge, lobes, tip, food, serrations, root, root hair, water, nutrients, anchor, support, seed, germination, seedling, growth, mature plant, flowering, pollination, seed formation, fruit, flower, bud, petal, sepal, carpel, stamen, pollen, reproduce, bee, nectar, pollen, pollination, reproduce, stamen (anther, filament, stigma, style, ova,

Rocks and Soils	• compare and group together different kinds of rocks on the basis of their appearance and simple physical properties • describe in simple terms how fossils are formed when things that have lived are trapped within rock • recognise that soils are made from rocks and organic matter	ENQUIRY TYPES: • Grouping & classifying • Carry out comparative & fair tests • Observing change over time • Using secondary sources of information WS KEY SKILLS: Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables Asking relevant questions and using different types of scientific enquiries to answer them Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions Using straightforward scientific evidence to answer questions, or to support their findings Setting up simple practical enquiries, comparative and fair tests Identifying differences, similarities or changes related to simple scientific ideas and processes	rock, stone, pebble, sandstone, granite, chalk, limestone, marble, pumice, texture, crystal, granule, properties, rough, smooth, hard, soft, particle, concrete, slate, brick, clay, stone, tile, roof, floor, pavement, wall, absorb, absorption, waterproof, permeable, non-permeable, permeability, weathering, erosion, soil types such as soil, clay, sandy, loam, peat, organic material, fossil, fossilise, remains, types of fossils such as trilobite, starfish, sea urchin, ammonite, igneous, metamorphic, sedimentary