Year 3 Science

Working Scientifically **(WS)**	Rocks **(R)**	Animals inc Humans **(AH)**	Light **(L)**	Magnets and Forces **(MF)**	Plants **(P)**
WS 1- I can ask relevant questions and use different types of scientific enquiries to answer them.	**R 1-** I can compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.	**AH 1-** I can 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.	**L 1-** I can recognise that they need light in order to see things and that dark is the absence of light.	**MF 1-** I can compare how things move on different surfaces.	**P 1-** I can identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.
WS 2- I can gather, record, classify and present data in a variety of ways to help in answering questions.	**R 2-** I can describe in simple terms how fossils are formed when things that have lived are trapped within rock.	**AH 2**- I can identify that humans and some other animals have skeletons and muscles for support, protection and movement.	**L 2-** I can recognise that light from the sun can be dangerous and that there are ways to protect their eyes.	**MF 2-** I can notice that some forces need contact between two objects, but magnetic forces can act at a distance.	**P 2-** I can explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant.
WS 3- I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables	**R 3-** I can recognise that soils are made from rocks and organic matter.		**L 3-** I can notice that light is reflected from surfaces.	**MF 3-** I can observe how magnets attract or repel each other and attract some materials and not others describe magnets as having two poles.	**P 3-** I can investigate the way in which water is transported within plants.
WS 4- can use results to draw simple conclusions, make predictions and suggest improvements.			**L 4**- I can recognise that shadows are formed when the light from a light source is blocked by a solid object.	**MF 4-** I can predict whether two magnets will attract or repel each other, depending on which poles are facing.	**P 4-** I can explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.
WS 5- I can identify differences, similarities or changes related to simple scientific ideas and processes.			**L 5-** I can find patterns in the way that the size of shadows change.	**MF 5-** I can 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.	

Autumn 1 Stone Age	**Autumn 2** The Greatest Show	**Spring 1** The Potteries	**Spring 2** Ratatouille	**Summer** The Wild, Wild West
R1 R2 R3 WS1	L1 L2 L3 L4 L5 WS1 WS2 WS3 WS4	MF1 MF2 MF3 MF4 MF5 WS1 WS3 WS4	AH1 AH2 WS1 WS5	P1 P2 P3 P4 WS1 WS2 WS3

Vocabulary	Vocabulary	Vocabulary	Vocabulary	Vocabulary
Rocks Rock, stone, pebble, boulder, grain, crystals, layers, sedimentary, igneous, metamorphic, hard, soft, texture, permeable, impermeable, fossil, marble, chalk, granite, sandstone, slate, soil, peat	**Light** Light, light source, dark, absence of light, transparent, translucent, opaque, shiny, matt, surface, shadow, reflection, refraction, mirror, sunlight	**Magnets and Forces** Force, push, pull, twist, contact force, non-contact force, friction, magnetic force, magnet (bar, ring, button, horseshoe), attract, repel, magnetic material, metal, iron, steel, poles, north pole, south pole	**Animals Including Humans** Nutrition, nutrients, carbohydrates, sugars, protein, vitamins, minerals, fibre, fat, water, skeleton, bones, muscles, support, protect, move, skull, ribs, spine, muscles, joints	**Plants** Air, light, water, soil, nutrients, reproduction, seed formation, dispersal (wind, animal, water), germination, pollination (wind and insect), lifecycle, transportation, location (photosynthesis), species, flower, stem, root, leaf, sepal, filament, anther, pollen, petal, stigma, style, ovary, ovule

Working Scientifically

Investigation, question, investigation cycle, predict, method, fair test, answer, results, conclusion, record, diagram, bar chart, compare, contrast, describe, observe, measure, equipment, identify, classify, sort, group, communicate,

I will know….	I will know….	I will know….	I will know….	I will know….
○ that there are three main rock types and how these are formed (metamorphic, sedimentary and igneous) ○ how to describe and compare different rocks in a range of ways ○ what fossils are and how they are formed ○ that soil is made from a variety of organic matter (such as leaves, rocks and moss) ○ that soil forms over hundreds of years ○ that soil formation occurs due to a range of conditions (such as wind, ice and heat)	○ that light is needed in order to see ○ that darkness is the absence of light ○ that looking at direct sunlight is dangerous to our eyes ○ that light is reflected from surfaces ○ that shadows are formed when a solid object blocks the light ○ that he length of a shadow can vary (due to the distance of the object to the light sources and the height of the light source)	○ why objects move differently on different surfaces (friction) ○ that some forces need to touch (contact forces and some do not need to touch (magnetic forces) ○ that some, but not all, materials are magnetic and will be able to name some of these (such as iron and nickel) ○ that magnets have a north and a south pole ○ that the poles on a magnet can attract or repel (north and south poles will attract)	○ that animals need food in order to get the nutrients they need ○ the importance of a balanced diet ○ the main food groups (carbohydrates, proteins, vitamins and minerals, fats and oils, fibre) ○ that some animals have an internal skeleton and its purpose (such as to protect organs and to keep the body upright) ○ that muscles are needed to move the body ○	○ the names and purpose of the parts of a flowering plant (such as the anthers contain the pollen) ○ that plants need certain conditions in which they need to survive and grow and this can vary from plant to plant ○ how water is transported through plants (water is taken in through the roots and transported through the stem) ○ the lifecycle of plants and the role of flowers in this

Working Scientifically

- how to ask scientific questions and to use different enquires to find answers
- how to gather results, record and present data
- how to present data in a range of ways such as bar charts, labelled diagrams and through the use of scientific vocabulary
- how to draw conclusions from my results
- how to suggest improvements to investigations
- that there are often similarities and differences and how to identify these
- how to identify changes that are occuring