

Working Scientifically

- ask relevant questions and use different types of scientific enquiries to answer them
- set up simple practical enquiries, comparative and fair tests
- make systematic and careful observations, and, where appropriate, take accurate measurements using standard units and a range of equipment, including thermometers and data loggers
- gather, record, classify and present data in a variety of ways to help in answering questions
- record findings using simple scientific language, drawings, labelled diagrams, keys, 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, make predictions for new values, suggest improvements and raise further questions
- identify differences, similarities or changes related to simple scientific ideas and processes
- use straight forward scientific evidence to answer questions to support their findings

Vocabulary: relevant, scientific enquiry, comparative and fair tests, systematic and careful observation, accurate measurements, standard units, equipment, thermometers, data loggers, record, classify, labelled diagram, key, bar chart, table, results, conclusions, predictions, improvements, differences, similarities, changes, processes, scientific evidence, exploring, relationships/patterns, interactions

Forces & Magnets

- compare how things move on different surfaces
- notice that some forces need contact between two objects, but 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

Vocabulary: forces, magnetic force, attract, repel, attraction, repulsion, poles, magnetic material

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, and room to grow) and how they vary from plant to plant
- investigate the way in which water is transported within plants
- explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal

Vocabulary: structure, function, flowering plant, root, stem, trunk, leaves, flowers, growth, nutrients, vary, nutrition, support, transported, life cycle, pollination, seed formation, seed dispersal, reproduction

Class 4 (Y3) Science

Rocks

- 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

Vocabulary: compare, rock, physical properties, fossils, soils, organic matter, environment, grains, crystals, sedimentary rock

Animals, including humans

- identify that animals, including humans, need the right type and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat
- identify that humans and some other animals have skeletons and muscles for support, protection and movement

Vocabulary: nutrition, skeleton, muscles, support, protection, movement, functions, diets, food groups, carbohydrates, fats, sugars, fibre, proteins, vitamins, minerals

Light

- 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
- recognise that light from the sun can be dangerous and that there are ways to protect their eyes
- recognise that shadows are formed when the light from a light source is blocked by a solid object
- find patterns in the way that the size of shadows change

Vocabulary: light, dark, reflected, shadows, solid object, patterns/relationships, reflective, light source