



Autumn Term 1	Autumn Term 2	Spring Term	Summer Term
<p>Walk Like an Egyptian</p> <p>Forces and Magnets</p> <ul style="list-style-type: none"> compare how things move on different surfaces notice that some forces need contact between 2 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 2 poles predict whether 2 magnets will attract or repel each other, depending on which poles are facing. <p>Working Scientifically Skills</p> <ul style="list-style-type: none"> Begin to understand that it is okay to disagree with their peers and offer a reason for their opinion. Build on / add to someone else's idea. (e.g. we could use x as well as y). Observe and record relationships between structure and function (linked to Y3 PoS). Ask questions such as 'What if we tried....?' or 'What if we changed...?' Help to decide about how to set up a simple fair test and begin to recognise when a test is not fair. With support / as a group, set up simple practical enquiries including comparative and fair tests . Collect data from their own observations and measurements using notes / simple tables / standard units. Gather data in a variety of ways to help in answering questions. Make simple accurate measurements using whole number standard units, using a range of equipment. Record and present findings using simple scientific language and vocabulary from the Y3 PoS, including discussions, oral and written explanations, notes, annotated drawings, pictorial representations, labelled diagrams, simple tables, bar charts (using scales chosen for them), displays or presentations. With scaffold / support, describe and compare the effect of different factors on something (e.g. we noticed that larger magnets are not always stronger). 	<p>Passport To The World</p> <p>Light</p> <ul style="list-style-type: none"> 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. <p>Working Scientifically Skills</p> <ul style="list-style-type: none"> Begin to understand that some questions can be tested in the classroom and some cannot. Within a group suggest questions that can be explored, observed, tested or investigated further. Find things out using a range of secondary sources of information (e.g. books, photographs, videos and other technology). Act out or make a model of something to represent something in the real world using appropriate scientific vocabulary verbally. With help; support, listen to and acknowledge others in the group (e.g. Yes. I prefer that one too). As a group, begin to make some decisions about the best way of answering their questions. Find / suggest a practical way to compare things e.g. rocks, magnets. Communicate their findings in ways that are appropriate for different audiences. (linked to Y3 PoS). With scaffold / support record, and present data in a variety of ways to help in answering questions. Use their experience and some evidence or results to draw a simple conclusion to answer their original question. Write a simple explanation of why things happened (using the word 'because') and using simple scientific language and vocabulary from the Y3 PoS. Say whether what happened was what they expected and notice any results that seem odd. 	<p>We Will Rock You!</p> <p>Rocks</p> <ul style="list-style-type: none"> 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. <p>Animals including humans</p> <ul style="list-style-type: none"> 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 identify that humans and some other animals have skeletons and muscles for support, protection and movement. <p>Working Scientifically Skills</p> <ul style="list-style-type: none"> Decide ways and give reasons for sorting, grouping, classifying, identifying things / objects, living things, processes or events based on specific characteristics. Compare and contrast and begin to consider the relationships between different things (e.g. structures of plants, functions of plant parts, diets, skeletons of humans and other animals, changes over time, etc.). Record similarities as well as differences (e.g. what do all skeletons have? as well as the differences between skeletons Explore their own ideas about 'what if....?' scenarios e.g. humans did not have skeletons. Within a group suggest relevant questions about what they observe and about the world around them. Find / suggest a practical way to compare things e.g. rocks, magnets. Communicate their findings in ways that are appropriate for different audiences. (linked to Y3 PoS) Observe and record changes /stages over time (linked to Y3 PoS). Explore / observe things in the local environment / real contexts and record observations (linked to Y3 PoS) – see 'Communicating' section also re links to vocabulary. 	<p>Pride of the Potteries Plants</p> <ul style="list-style-type: none"> 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. <p>Working Scientifically Skills</p> <ul style="list-style-type: none"> Compare and contrast and begin to consider the relationships between different things (e.g. structures of plants, functions of plant parts, diets, skeletons of humans and other animals, changes over time, etc.).] Begin to make some decisions about an idea within a group from a list of choices (e.g. let's put them all in a pile first OR I think we should try...). Make a prediction based on everyday experience. Help to make some decisions about what observations to make, how long to make them for, the type of simple equipment that might be used and how to work safely. Make simple accurate measurements using whole number standard units, using a range of equipment. Use equipment accurately to improve the detail of their measurements / observations (e.g. microscopes, measuring syringes, measuring cylinders, hand lenses). Record and present findings using simple scientific language and vocabulary from the Y3 PoS, including discussions, oral and written explanations, notes, annotated drawings, pictorial representations, labelled diagrams, simple tables, bar charts (using scales chosen for them), displays or presentations. Communicate their findings in ways that are appropriate for different audiences. (linked to Y3 PoS). With help, look for changes and simple patterns in their observations, data, chart or graph. Use their results to consider whether they met their predictions.

Key Vocabulary

Forces and Magnets	Light	Rocks	Animals Inc Humans	Plants
<ul style="list-style-type: none"> Force, non-magnetic, magnet, attraction, repulsion, size, metal, iron, copper aluminium, attract, repel, magnetic, direction, push, pull, balanced, unbalanced 	<ul style="list-style-type: none"> Shadow, shape, light, similar, shadow, shape, light, transparent, opaque, light source, block, Sun, direction, changes, light travels, object, shortest, daytime, longest, highest, torch 	<ul style="list-style-type: none"> Animals, classification, extinct, fossils, imprint, minerals, paleontologist, plants, preserve, process, rocks, sedimentary, sediments, drainage, mineral, particles, permeable, non-permeable, sand, soil, types of rocks, types of soil 	<ul style="list-style-type: none"> Feed, feeding, growth, vegetables, diet, meat, fish, sugars, starches, fruits, Fats, healthy, food, groups, balanced, varied, nutrition. Skeleton, muscles, support, movement, growth, muscle groups, bones, support, attached, ribs. Spine, joints, skull, exercise, contract, rest, vertebrate, relax, contract, contraction 	<ul style="list-style-type: none"> Plants, grow, yellow, soil, pale, warmth, thin, change, spindly, reliable, healthy, evidence, light, leaves, roots, stem, trunk, flowers, water, carbon dioxide, water, nutrients, room, fertilizer, flowering plants, seed formation, seed dispersal, water transportation,

