Class 3

Science Overview – Cycle B

	Autumn Term Ancient Egyptians		Spring Term Rotten Romans	Summer Term Rainforests
Area of Science	Y3 and Y4: Animals, including Humans	Y3: Forces and Magnets	Y3: Light	Y3: Plants
Knowledge	 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 Describe the simple functions of the basic parts of the digestive system in humans Identify the different types of teeth in humans and their simple functions 	 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 	 Recognise that they need light in order to see things an 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 an opaque object Find patterns in the way that the size of shadows change 	 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
Key Vocabulary	herbivore, carnivore, omnivore, nutrition, diet, carbohydrates, proteins, dairy, fats, sugars, vitamins, minerals, fibre, growth, repair, health, energy, vertebrate, invertebrate, skeleton, muscles, joints, tendons, contract, relax, digestion, organ, oesophagus, intestines, faeces, colon, jaw, incisors, molars, canines, enamel, decay	force, push, pull, prediction, fair test, measure, friction, twist, gravity, magnetism, contact, Newton, force meter, magnet, magnetic, attract, attraction, question, strength, non-magnetic, theory, metal, iron, steel, attract, repel, poles, North, South	light, beam, darkness, illuminate, straight lines, investigate, light source, reflector, reflect, predict, investigate, fair test, reflective materials, mirror, image, angle, line of reflection, concave, convex, symmetrical, transparent, translucent, opaque, shadow, screen, block, measure, distance, plot, graph, data, fair test, results, rainbow, white light, spectrum, prism, refraction, dispersion	petals, reproduction, male, female, stigma, style, stamens, seed, nectar, pollination, fertilisation, bee, pollen, honey, hive, attract, transfer, ovary, ovules, pollen grains, fruit, pod, parent plant, dispersal, germination, investigate, fair test, record, results, plants, growth, light, warmth, air, soil, water, seedlings, research, height, root, stem, leaves, flowers, petals, shoots, buds, fruits, seeds, classify, light level, temperature, wilting, yellowing, measure, record
Cross-curricular Links	History – mummification and what Ancient Egyptians did with different organs. What did Ancient Egyptians eat?	Maths – Data handling and measurement History/DT – How did the Egyptians build the pyramids? Pulleys, levers	Art – Sketching spectrums of colour Maths – Data handling and reflection	Art - Sketching or modelling plants Geography – Physical geography including biomes and vegetation belts, locating plants by their countries or regions English – information texts about plants/rainforests
Scientific Enquiry Methods	• Observe changes over time • Fair and comparative testing • Notice patterns and pattern seeking • Researching/secondary sources • Group and classify • Description			
Working Scientifically Skills	 Ask relevant questions and use different types of enquiries to answer them Set up practical enquiries, comparative and fair tests Make careful observations and take accurate measurements using a range of equipment Gather, record, classify and present data to help answer questions Record findings using scientific language, drawings, labelled diagrams, keys, bar charts and tables Record findings using scientific language, drawings, labelled diagrams, keys, bar charts and tables 			