

Overview of science curriculum 2014 / 2015

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
FS	Forest school. Humans-growing. Senses.	Forest school. Changing materials, melting and freezing. Day and night - nocturnal animals.	Forest school. Volcanoes. Changing landscapes, Triassic, Jurassic and Cretaceous. Pangaea. Features of dinosaurs.	Forest school. Floating and sinking. Water cycle. Oceans. Waterproof. Looking after sea monkeys.	Forest school. Environments around the world. Weather around the world. Magnets. Classifying and sorting animals. Animal features to survive. (Adaptation)	Forest school. Testing materials. (The 3 little pigs) Plants and growing. (Jack and the beanstalk.) Life cycles of insects. Habitats.
Y1	Animals including humans Body parts - humans and animals, senses, carnivore/herbiv ore/ omnivore, grouping and sorting animals, animals in local environment - birds	Changing Seasons Sun facts, sun movements, shadows, seasons, weather, seasonal weather. (HT plans?)	Everyday Materials Identifying materials, properties, grouping my properties; floating and sinking. Investigations	Changing Seasons Create weather station measuring equipment- record daily weather, Weather symbols	Plants - use environment throughout the year. Wild plants, garden plants, local walk, main parts of plants, observational drawings, seasons changes. Plant vegetables, record how plants change.	Changing Seasons - ongoing

Y2	<p>Animals including humans</p> <p>Life cycles (including example eg frog/chicken)</p> <p>keeping healthy - basic needs and hygiene</p>	<p>Variation- animals- different groups (mammals etc)</p>	<p>Uses of every day materials/ changing materials</p>	<p>Forces and Movement (movement on surfaces)</p>	<p>Plants</p> <p>Children observe inside seeds and bulbs and describe how they grow into mature plants. They find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. Find seeds in the local environment.</p>	<p>Habitats and Living things</p> <p>Children explain differences between things that are living and things that have never been alive. Investigate what living organisms need to stay alive and healthy. Identify and sort living and non-living things and discuss how some non-living things were alive once.</p>
Y3	<p>Animals including humans- digestive system/food groups/ skeletons</p>	<p>Forces and Magnetism- pushes and pulls, different surfaces</p> <p>Magnetism- attract and repel + use of magnets</p>	<p>Plants (Edina trust link)</p> <p>Structure and function, photosynthesis, soil nutrients, water transportation, plant life cycle, seed dispersal +</p>	<p>Light</p> <p>Light and darkness, mirrors, sun, shadows, transparency</p>	<p>Rocks</p> <p>Rock detectives- under our feet, volcanoes, rock investigations; properties of rocks, fossils. Soil properties and investigation.</p>	<p>On going bulb project and allotment.</p>

			enquiry			
Y4	Sound- vibration, hearing sounds, investigate sound proofing, pitch and loudness, musical instruments.	Digestion, Digestive system, Animal diets, Teeth, Tooth decay, Eggshell enquiry, Producers, predators & prey and food webs.	Living things and their habitats <i>Biology</i>		Electricity- Mains electricity vs batteries! What is a circuit? Electrical conductors, cables and plugs, switches, brighter bulbs and scientists.	States of Matter- Solids, liquids or gases? Temperature, using a thermometer, changing states, evaporation and condensation, water cycle, air.
Y5	Space- day and night, moon phases, eclipses and seasons, the solar system/ stars and planets	Forces- gravity, opposing forces, friction and air and water resistance/ mechanical devices	Materials- -Reversible and irreversible changes -properties -mixtures and solutions	Materials- -Reversible and irreversible changes -properties -mixtures and solutions	Life cycle of plants and animals- Study the life cycles of mammals, amphibians, insects and birds, including some unusual examples like egg-laying mammals and marsupials. Compare complete and incomplete metamorphosis. Find out about well-known naturalists and animal behaviourists. Propagate plants from different parts of the parent plant.	Describe changes as humans develop and mature (PSHE link) Discuss why living things need to reproduce and look in detail at human life cycle, comparing with other animals. Study physical and emotional changes at puberty. Challenge children to look after a Flour Baby. Research rites of

						passage throughout human life cycle
Y6	<p>Electricity- circuits</p> <p>Revision of simple circuits & then lots of hands on experience with symbols, diagrams & incomplete circuits.</p> <p>Enquiries about the length of wire in a circuit & the use of cells and compare series & parallel circuits. parallel and series+ control technology</p>	<p>Forces- balanced forces (old curriculum to be phased out July 2015)</p> <p>Looking again at the different forces studied in earlier years - gravity, air resistance, friction and upthrust of liquids. Investigate what happens when an elastic band stretches under force. Develop an understanding of balanced and unbalanced forces and their effects.</p>	<p>Humans and other animals</p> <p>Children will explore the structure of the heart & lungs. The double circulation through the lungs & the rest of the body is explained & children learn more about blood! They will learn how exercise affects pulse rate and why it is exercise good for us & what can harm the heart & lungs.</p>	<p>Living things and their habitats (new curriculum)</p> <p>Children will learn about the history of classification of living things from Aristotle to the present day.</p> <p>Study the binomial system introduced by Linnaeus & the 7 levels of classification used today. Understand why classification is important & use & create classification keys.</p>	<p>Evolution and adaptation</p> <p>Discuss fossils as evidence of life millions of years ago and study the life of Mary Anning.</p> <p>Compare offspring with parents and see how plants/animals are adapted to habitats. Look at Darwin, Wallace and Mendel's contributions to our understanding of evolution.</p>	<p>Light (new curriculum)</p> <p>The children will learn how to identify sources of light & revise facts that light travels in straight lines & opaque objects form shadows.</p> <p>Understand that to see, light needs to enter the eye.</p> <p>Investigate light reflection & refraction, white light made of many colours & the speed of light.</p>