

Year	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 1	Seasonal Change Autumn Observe changes in Autumn and describe weather and day length. Learn what weather is and the weather associated with each season. Use a class weather station, observation, discussion and learning outside to measure and record.	Materials Name and describe the simple physical properties of everyday materials, including wood, plastic, glass, metal, water, and rock, compare and group. Science week – Dr. Mae Jemison (USA)	Seasonal Change Winter Exploring signs of winter through nature and wildlife. Find out how different types of weather can be measured. Work scientifically by collecting, recording and interpreting simple data.	Animals and Humans Identify animals including fish, amphibians, reptiles, birds and mammals including carnivores, herbivores and omnivores. Label parts of humans and animals.	Seasonal Change Spring and Summer Observe and collect data about the weather and changes between spring and summer. Sun safety. Go on a nature walk. Work scientifically by using simple equipment, making observations and gathering data. Trip – Lady Ryder Memorial Garden	Plants Identify wild and garden plants, e.g. deciduous and evergreen trees, describe structure of flowering plants, trees. Trip – Connells Farm
Year 2	Living things and their habitats Living, dead and never alive Local habitats Microhabitats World habitats Working together - staying alive Food chains Pond Dipping	Uses of everyday materials Identifying uses Out and about Comparing suitability Changing shape Recycling Discovering new materials Science week – Marie Curie	Scientists and Inventors Greenhouse growing – Tim Smit (Eden Project) Brilliant botany – Jane Colden Doctor's surgery – Elizabeth Garrett Anderson Discovering germs – Louis Pasteur Wet weather wear - Charles Macintosh Ocean habitats - Rachel Carson Wind power – James Blyth	Animals including humans Animal offspring Life cycles Growing up Survival Exercise Healthy living Trip – Jacksons Farm (lambing)	Plants What do plants need to grow? What is inside a seed? Life cycle of a plant What do plants need to stay healthy? How do plants grow in hot, dry or cold places? Trip – Lady Ryder Memorial Garden	Biodiversity - Minibeasts Minibeast hunt Bee-friendly environments Minibeast helpers Minibeast mansions Wonderful worms Minibeasts for our planet Trip – Lady Ryder Memorial Garden
Year 3	Rocks Compare and group together different kinds of rocks on the basis on 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. Geology Jill j.eyers@openworld.com www.chilternatchaeology.com	Animals and Humans Animals, including humans, need the right types and amount of nutrition, they cannot make their own food; they get nutrition from what they eat. Humans and some other animals have skeletons and muscles for support, protection and movement. Science week – Katherine Johnson	Forces Compare how things move on different surfaces. Some forces need contact between 2 objects, but magnetic forces can act at a distance. 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	Magnets Compare how things move on different surfaces. Some forces need contact between 2 objects, but magnetic forces can act at a distance 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	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	Light We need light in order to see things; dark is the absence of light. Light is reflected from surfaces. Children 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 changes.

Frieth CEC School

Science Long Term Plan (knowledge)

			poles. Predict whether 2 magnets will attract or repel each other, depending on which poles are facing.	Describe magnets as having 2 poles. Predict whether 2 magnets will attract or repel each other, depending on which poles are facing	pollination, seed formation and seed dispersal. Trip – Lady Ryder Memorial Garden	
Year 4	Living Things in Their habitats Identifying, grouping, sorting and classifying; vertebrates and invertebrates; local habitat classification keys. Reproduction in plants, Trip – Lady Ryder Memorial Garden	Electricity Common electrical appliances; how to construct simple circuits; key vocabulary; and conductors and insulators. Science week – David Attenborough	States of Matter Solids, liquids and gasses; material properties; investigate the weight of gas; investigate the states of matter of water.	Sound How vibrations cause sound; pitch and loudness. Trip – Connells Farm	Animals and Humans Nutrition and the digestive system; function of teeth; herbivores, omnivores, carnivores, food chains.	Animals and Humans Nutrition and the digestive system; function of teeth; herbivores, omnivores, carnivores, food chains. Science week – David Attenborough
Year 5	Living Things in Their habitats Reproduction and life cycles; pollination and asexual reproduction. Grouping flowering and non-flowering plants, Trip – Lady Ryder Memorial Garden Pond Dipping	Earth Spherical bodies; night and day; night and day international; movement of the moon. Science week – Isaac Newton	Space The planets; geocentric versus heliocentric.	Forces Gravity; friction; water resistance; air resistance; mechanisms – levers, gears and pulleys; Newton.	Animals and Humans Changes in humans over their lifecycle; puberty; gestation of humans.	Properties and changes of materials Material properties; uses; dissolving; separating; irreversible changes.
Year 6	Living Things in their Habitats Classify living things including microorganisms, plants and animals, vertebrates and invertebrates, study of scientist Carl Linnaeus, research unfamiliar plants, justify classification Trip – Lady Ryder Memorial Garden Pond Dipping	Light Light, how we see, shadows, reflection and refraction, how light travels. Science week – Thomas Edison	Evolution and Inheritance Variation, adaptation, theories of evolution by Charles Darwin and Alfred Wallace.	Electricity Represent circuits using symbols, Thomas Edison and Nikolas Tesla, what electricity is and how to measure it.	Animals and Humans Circulatory system, job of the heart, what is blood and how it is transported around the body, how heart rate is affected by exercise.	PSHE/ RSE /SATs

Field Trips
Theme Days
Pond Dipping