

This is the day that the Lord has made; let us rejoice and be glad in it. Psalm 118



How do we Grow Finchampstead Scientists? Cycle A (Autumn Even Year)

Autumn A

Spring A

Summer A

Rosefinch Y1

Bullfinch Y1/2



Seasonal Changes: Wild Weather

Children will think about the weather, learn how to present data and make their own weather forecast to present to the class. Children will explore shadows and what effects their length. Children will set up rain gauges to observe rainfall

Everyday Materials. Brilliant Builders – Choosing the best materials –

Explore different materials and sort them into groups. Explore the properties of materials through practical investigations.

Think about what material works best for which job.

Animals Including Humans: People and Their Pets

Observe creatures in the school grounds, photograph them and make sketches. Collect woodlice and set up different colonies in the classroom based on what they know about their habitats. Talk about what makes a good pet and observe and work with different animals in the classroom and outdoors.

Animals including humans: Wild and Wonderful Creatures

Explore a range of wild animals and investigate carnivores, herbivores and omnivores. Group and categorise a range of animals

Create flip flap question posters and fact files.

Living Things and their Habitats: Food Chains

Talk about food chains and role play the interdependence between creatures in a chain, considering what part each plays in its survival. Then explore the school grounds, looking for examples of food chains. Create and draw new food chains for a range of animals.

Plants: Growing things

Explore outside and prepare tubs for planting potatoes/range of veg and flowers. Record the growth of a bean and look at how it develops. Label the parts of a plant. Grow, harvest and eat a range of vegetables including cucumber, beans and cress.

Autumn B

Spring B

Summer B

Rosefinch Y1

Bullfinch Y1/2



Animals including humans: Amazing me!

The children will think carefully about what they were like as a baby. Look at the differences in their body, compare foot and hand sizes with now and then exploration. Look at lifecycles of humans and a range of animals.

Seasonal Changes: Weather Art:

talk about the four seasons Go outside to experience the wind and make a windsock, windmill and bottle wind spinner in the classroom. Talk about the importance of the sun, design sun catchers to hang in the classroom.. Then explore shadows using torches

Everyday Materials: Brilliant Builders Comparing Materials

Explore and investigate the absorbency and waterproofing of materials. Experiment through water play. Compare and contrast a range of materials.

Everyday Materials: Exploring Changes -

Observe a block of ice and record the changes. Devise an investigation to melt the ice quickly or slowly. Then create puddles and measure how they change. Take up the challenge of investigating the absorbency of fabrics and explore changes in wax through batik art and crayon making Explore the effects of heat on ice/chocolate.

Plants: Art and Nature -

investigate and sort materials according to where they came from. Learn all about those materials that come from plants. Create large sculptures out of clay, find flowers outside in the playground and sketch them and then make a large model of the inside of a flower using junk modelling materials! Enjoy being outside by doing bark and leaf rubbings and then do a piece of playground art, using cloths, chalk and found materials

Living Things and their Habitats: Habitats and Homes -

Explore micro habitats and think about helpful insects for planting and pollination. Explore the benefits of arable farming. Make bug hotels and habitats to support the ecosystem.

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How do we Grow Finchampstead Scientists? Cycle A (Autumn Even Year)

Autumn 1

Autumn 2

Spring 1

Spring 2

Summer 1

Summer 2

Chaffinch
Y3/4



What's That Sound? Identify how sounds are made, associating some of them with something vibrating. Recognise that vibrations from sounds travel through a medium to the ear. Find patterns between the pitch of a sound and features of the object that produced it. Find patterns between the volume of a sound and the strength of the vibrations that produced it. Recognise that sounds get fainter as the distance from the sound source increases.

Animals Including Humans
. 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 construct and interpret a variety of food chains, identifying producers, predators and prey.

Forces and Magnets Compare how things move on different surfaces. Notice 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.

Helping Plants Grow
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.

Helping Plants Grow cont.
. 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.

Reflection and 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 an opaque object. Find patterns in the way that the size of shadows changes.

How do we Grow Finchampstead Scientists? Cycle B (Autumn odd Year)

Chaffinch
Y3/4



Living Things- Habitats
Recognise that living things can be grouped in a variety of ways. Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. Recognise that environments can change and that this can sometimes pose dangers to living things.

Living Things- Habitats cont.
Recognise that living things can be grouped in a variety of ways. Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. Recognise that environments can change and that this can sometimes pose dangers to living things.

States of matter
Compare and group materials together, according to whether they are solids, liquids or gases; identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature; observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)

Animals Including Humans
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.

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.

Electricity
Identify common appliances that run on electricity. Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery. Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. Recognise some common conductors and insulators, and associate metals with being good conductors.

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How do we Grow Finchampstead Scientists? Cycle A (Autumn Even Year)

Autumn 1

Autumn 2

Spring 1

Spring 2

Summer 1

Summer 2

Goldfinch Y5/6



A Force of Nature.

Explain some of the effects of gravity. Plan, carry out and explain fair tests. Apply to investigations of air and water resistance and friction. Explain how levers, pulleys, springs and gears transfer force and motion. (Language of written reports on investigations)

Material World: give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic; compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity,, and response to magnets ; explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda. Demonstrate that dissolving, mixing and changes of state are reversible changes. Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution. Use knowledge of solids, liquids and gases to decide how mixtures might be separated: filtering, sieving, evaporating.

Earth in Space

(Link with the Maya Calendar). Learn how the planets in our solar system are organised. Investigate the scientists who tried to explain the sun, moon and planets. Explain how the Earth's movement causes day and night. Explore the Earth's movement through simulation and time zones. Recount visit to Winchester Planetarium.

Super Scientists

Investigating the discoveries of some famous scientists and looking at how scientists work.

Circle of Life

Research the life cycle and reproduction of a flowering plant Explain how plants reproduce. Explain how new plants can be grown from cuttings and bulbs. Describe the differences in the life cycles of an amphibian and an insect. Learn about the lifecycle and reproduction of mammals and birds

Growing up and Growing Old

Describe some of the changes that happen as children grow up into adults. Collect and compare data on average heights as we grow up. Describe some of the changes that happen at puberty. Describe what happens during pregnancy. Describe how different mammals have different gestation periods. Describe the changes that happen to us as we enter old age. Consider the impact of living longer.

How do we Grow Finchampstead Scientists? Cycle B (Autumn odd Year)

Goldfinch Y5/6



Investigating Light

Investigate a range of simple light challenges (planning/fair testing/exploring) ; Investigate and demonstrate that light travels in straight lines (exploring). Investigate shadows and how they change as a result of light sources (Fair testing/exploring/pattern seeking). Investigate how light reflects (make a periscope) (exploring/problem solving). Explore split light (finding 'rainbows') (exploring). Investigate coloured light mixing (exploring/problem solving).

It's Electrifying!

Use new knowledge about circuits, symbols and changing components to design an electronic game linked the Greeks. Change components in a circuit. Plan an investigation that will produce useful evidence. Design a circuit to test an idea. Change components in a circuit.

Classification

Understand how living things can be classified into groups scientifically. To observe similarities and differences and use them to classify living things. To interpret observations and use them to develop explanations. To explore the reasons for a classification system. To recognise that there are more than two kingdoms. To investigate ways in which plants can be classified

Staying Alive

Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. Describe the ways in which nutrients and water are transported within animals, including humans. Investigate some effects of exercise on the body. Take and record measurements. Present data in appropriate ways. Use evidence to support or refute an assertion. Explain the effect of drugs on the body. Analyse data and suggest how it supports ideas about a healthy diet and lifestyle.

Evolution

Identify things that are inherited and things that are learned (exploring/analysing secondary sources); Explore variation through dog breeds (exploring); Identify features that support survival in a given environment (pattern seeking/exploring); Meet Darwin, Anning and Wallace and explore the role of fossils in scientific understanding of evolution (analysing secondary sources); Use the principles of evolution to animal and plant evolution (exploring/analysing secondary sources/pattern seeking); Explain through story writing how certain features of animals have evolved (analysing secondary sources)

Walking with Dinosaurs:

A chance to develop enquiry skills while studying and researching this fascinating period in time. Culminating in a Family Learning Event.