

Science



Y4	States of Matter			Resources
Autumn 1	<u>Scientific vocabulary:</u> Solid, liquid, gas, evaporation, condensation, chemical change, oxygen, carbon dioxide, freezing/boiling			Thermo meter
Science skills Developed through: - Observing over time - Identifying, grouping and classifying - Pattern Seeking - Making and developing ideas - Comparative and fair testing - Researching using secondary sources - Drawing conclusions and making predictions	What we want children to know :	Focus Scientists:	STEM Careers:	
	- Compare and group materials together, according to whether they are solids, liquids or gases. - 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) - Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.	- Jamie Oliver - Jim Cantore	- Meteorologist - Chef - Fireman	
	<u>Skills</u> Compare, group, observe, measure, research, identify, explore, classify	<u>Assessment</u>		

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Y4 Autumn 2	Sound	Resources
Science skills Developed through: • Observing over time • Identifying, grouping and classifying • Pattern Seeking • Making and developing ideas • Comparative and fair testing • Researching using secondary sources • Drawing conclusions and making predictions	Scientific vocabulary: <i>Vibration, sound, wave, sound, medium, pitch, volume, fainter/louder, increase, insulation</i>	
	What we want children to know: Focus Scientists: STEM Careers:	
	• 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. <u>Skills</u> Identify, recognise, explore, identify, investigate <u>Assessment</u>	

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Y4 Spring 1	Animals (including humans)	Resources
	Scientific vocabulary: <i>Digestion, producer, predator, prey, oesophagus, stomach, intestines, carnivore/herbivore, incisor, canine, molar</i>	Teeth model
Science skills Developed through: - Observing over time - Identifying, grouping and classifying - Pattern Seeking - Making and developing ideas - Comparative and fair testing - Researching using secondary sources - Drawing conclusions and making predictions	What we want children to know: - 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. Focus Scientists: - Dr Nina Tandon - David Attenborough - Chris Packham STEM Careers: - Dietician - Dentist - Wildlife rehabilitator <u>Skills</u> Describe, identify, interpret, explore, compare <u>Assessment</u>	

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Y4	Living things and their habitats		Resources
Spring 2	<u>Scientific vocabulary:</u> Classification, grouping, vertebrate/invertebrates, amphibians, reptiles, mammals, deforestation, population, insects		
Science skills Developed through: • Observing over time • Identifying, grouping and classifying • Pattern Seeking • Making and developing ideas • Comparative and fair testing • Researching using secondary sources • Drawing conclusions and making predictions	What we want children to know :	Focus Scientists:	STEM Careers:
	• 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.	• Carl Linnaeus • Emma Milne	• Zoologist • Environmentalist • Vet
	<u>Skills</u> Explore, group, identify, name, recognise, explore	<u>Assessment</u>	

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Y4 Summer 1 & 2	Electricity			Resources
	<u>Scientific vocabulary:</u> Electricity, circuit, cell, wire, bulb, switch, buzzer, battery, conductor/insulator			• Wires • Buzzers • Switches • Bulbs • Cells • Batteries
Science skills Developed through: • Observing over time • Identifying, grouping and classifying • Pattern Seeking • Making and developing ideas • Comparative and fair testing • Researching using secondary sources • Drawing conclusions and making predictions	What we want children to know:	Focus Scientists:	STEM Careers:	
	• 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	• Benjamin Franklin • Michael Faraday • Gavin Cuff	• Electrician • Appliance technician • Inventor	

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	good conductors.			
	<u>Skills</u> Identify, construct, recognise, observe	<u>Assessment</u>		