Y4 Science

Working Scientifically **(WS)**	Sound **(S)**	Animals inc Humans **(AH)**	States of Matter **(SM)**	Living Things and their Habitats **(AH)**	Electricity **(E)**
WS 1- I can set up simple practical enquiries, comparative and fair tests.	**S 1**- I can identify how sounds are made, associating some of them with something vibrating.	**A.H 1**- I can describe the simple functions of the basic parts of the digestive system in humans.	**SM 1**- I can compare and group materials together, according to whether they are solids, liquids or gases.	**LH 1**- I can recognise that living things can be grouped in a variety of ways	**E 1**- I can identify common appliances that run on electricity.
WS 2- I can make systematic and careful observations and, where appropriate, take accurate measurements using standard units.	**S 2**- can recognise that vibrations from sounds travel through a medium to the ear.	**AH 2**- I can identify the different types of teeth in humans and their simple functions	**SM 2**- I can 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).	**LH 2**- I can explore and use classification keys to help group, identify and name a variety of living things in their local and wider environments.	**E 2**- I can construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.
WS 3- I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.	**S 3**-. I can find patterns between the pitch of a sound and features of the object that produced it.	**AH 3**- I can construct and interpret a variety of food chains, identifying producers, predators and prey.	**SM 3**- I can identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.	**LH 3**- I can recognise that environments can change and that this can sometimes pose dangers to living things.	**E 3**- I can 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.
WS 4- I can use scientific evidence to answer questions or to support my findings	**S 4**- I can find patterns between the volume of a sound and the strength of the vibrations that produced it.				**E 4**-. I can recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.
WS 5- I can record findings using simple scientific language, branching databases, graphs and tables.	**S 5**- I can recognise that sounds get fainter as the distance from the sound source increases.				**E 5**- I can recognise some common conductors and insulators, and associate metals with being good conductors.

Autumn 1 Jungle Journey	Autumn 2 A Magical Place	Spring 1 Rotten Romans	Spring 2 Vicious Volcanoes	Summer 1 Vile Victorians	Summer 1 Wonderful Water
LH1 LH2 LH3 WS3	E1 E2 E3 E4 E5 WS1 WS2 WS3 WS4 WS5	SM1 SM2 SM3 WS1 WS2 WS3 WS4 WS5	AH1 AH2 AH3 WS1 WS2 WS3 WS4 WS5	S1 S2 S3 WS2 WS3 WS4 WS5	S4 S5 WS2 WS3 WS4 WS5

Vocabulary	Vocabulary	Vocabulary	Vocabulary	Vocabulary
Living Things and their Habitats Classification, classification keys, environment, habitat, human impact (positive and negative), migrate, hibernate, fish, reptiles, amphibians, mammals, birds, insects vertebrae, non-vertebrae	**Electricity** Electricity, electrical appliance/device, mains, plug, electrical circuit, complete circuit, component, cell, battery, positive, negative, crocodile clip, bulb, switch, buzzer, motor, conductor, insulator, metal, non-metal, symbol	**States of Matter** Solid, liquid, gas, particles, state change, melting, freezing, melting point, boiling point, thermometer, Celsius, evaporation, condensation, temperature, water cycle	**Animals Including Humans** Digestive system, digestion, mouth, teeth, saliva, oesophagus, stomach, small intestine, nutrients, large intestine, rectum, anus, teeth, incisor, canine, molar, premolars, herbivore, carnivore, omnivore, producer, predator, prey, food chain	**Sound** Sound, sound wave, vibrate, vibration, travel, pitch (high, low), volume, faint, loud, insulation
Working Scientifically Investigation, question, investigation cycle, predict, method, fair test, answer, results, conclusion, record, diagram, bar chart, compare, contrast, describe, observe, measure, equipment, identify, classify, sort, group, communicate,				

I will know….	I will know….	I will know….	I will know….	I will know….
○ how to group different animals in a variety of ways (such as vertebrae which are mammals) ○ how to use classification keys to identify living things ○ how human and natural impact can alter an environment (such deforestation destroys habitats whereas a garden pond provides habitats) ○ the names of different animals and plants in the local environment	○ a variety of objects which use electricity ○ know the parts used in a simple circuit and their symbols (such as cells, wires and bulbs) ○ how to draw a diagram of a simple circuit ○ how to create a simple circuit ○ how to identify if a circuit will work to light a lamp ○ how a switch can close or open a circuit ○ what conductors and insulators are ○ how to name a variety of common insulators and conductors	○ what solids, liquids and gases are ○ how to group items together based on whether they are a solid, liquid or a gas ○ that some items change their state when heated or cooled (such as water turns to ice when at freezing point) ○ what the water cycle is ○ how temperature affects the rate of evaporation and condensation	○ the names of the basic parts of the human digestive system ○ the purpose of these main parts (such as the stomach stores and breaks down food) ○ the different human teeth and their role (such as the canines are used to grip and tear food) ○ what a food chain is ○ what producers, predators and prey are and where they fit within a food chain	○ how sound is made (through vibration) ○ that sound travels through things to the ear (including air) ○ what pitch is and why this changes depending on the object making the sound (the larger the instrument the lower the sound) ○ what volume is and how the strength of the vibration affects the volume ○ that the volume will differ depending on the distance from the object making the sound

Working Scientifically

- what a fair test it
- how to set up simple fair tests
- how to make observations
- how to record using the correct measurements (cm, c°, ml etc)
- how to present my work in a variety of ways, including written and oral presentations
- how to answer questions using a range of scientific evidence
- a range of appropriate scientific vocabulary which I can use in both a verbal and written manner