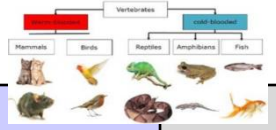
Living Things & Their Habitats – YEAR 4



Year 2		Year 4	Year 5	Year 6
• Explore and compare the differences between things that are living, dead, and things that have never been alive. • Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other. • Identify and name a variety of plants and animals in their habitats, including microhabitats. • Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food. • Notice that animals, including humans, have offspring which grow into adults. (Y2 - Animals including humans)		• 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. • Construct and interpret a variety of food chains, identifying producers, predators and prey. (Y4 - Animals, including humans)	• Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. • Describe the life process of reproduction in some plants and animals.	• Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals. • Give reasons for classifying plants and animals based on specific characteristics.
living dead never been alive move grow feed Have offspring, young, babies name local habitats e.g. a pond e.g. a woodland e.g. a meadow	name micro-habitats e.g. under log e.g. on stony path e.g. under bushes damp/wet/dry dark/light hot/warm/cool/cold use comparatives e.g. hotter suited/suitable basic needs depend food food chain	classification keys environment fish amphibians reptiles birds mammals vertebrates invertebrates name some invertebrates human impact name positive human impact name negative human impact	life cycle Reproduction sexual asexual germination pollination seed formation seed dispersal pollen stamen stigma plantlets e.g. spider plant runners e.g. strawberry plant mammal amphibian insect bird fish reptile eggs live young	organism micro-organisms fungus mushrooms classification keys environment fish amphibians reptiles birds mammals vertebrates invertebrates name some invertebrates arachnid mollusc insect crustacean

ANIMALS INCLUDING HUMANS – YEAR 4, Teeth & Digestive System

Year 1/2

Y1

- Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.
- Identify and name a variety of common animals that are carnivores, herbivores and omnivores.
- Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets).
- Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.

Y2

- Notice that animals, including humans, have offspring which grow into adults.
- Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).
- Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.

names of common animals
names of common animals (eat other animals)
names of common animals (eat plants)
names of common animals (eat plants and animals)
wild animals
pets
body
head
neck
arms
elbows
legs
knees
face
ears
eyes
eyebrows
eyelashes
nose
hair
mouth
teeth
tongue
feet
Adult vocb: fish, amphibians Reptiles, birds., mammals, carnivores, herbivores, omnivores

toes
fingers
nails
ankle
calf
thigh
hips
waist
trunk
chest
shoulders
back
hands
wrist
tail
wing
claw
fin
scales
feathers
fur
beak
senses
hear/hearing
see/seeing
touch/touching
smell/smelling
taste/tasting
rough/smooth
bright/dim
loud/quiet
high/low
Repeating-continuous (sound)

offspring
young
grow
change
adults
older/younger
baby/toddler/child/
teenager
basic needs
water
food
air
breathing
survival
exercise
food types
fruit and vegetable
bread, rice, potato, pasta
milk and dairy foods
foods high in fat or sugar
meat, fish, egg, beans
hygiene
clean
wash
healthy
medicine
drugs
Will be introduced to nutrition and nutrients in year 3 so avoid protein, carbohydrates etc

Year 3

- 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.

nutrition
nutrients
food types
fruit and vegetable
bread, rice, potato, pasta
milk and dairy foods
foods high in fat or sugar
meat, fish, egg, beans
carbodrates
protein
vitamins and mineral
fat
dietry fibre
water
balanced diet

skeleton
muscles
support
protection
movement
skull
ribs
spine/vertebra
joints
sockets
bones
tendons
vertebrate/invertebrate

Year 4

- 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.

digestive system
nutrition
nutrients
mouth
teeth
canines
incisor
molar
pre-molar
saliva
tongue
rip, tear, chew, grind, cut
oesophagus (gullet)
stomach
small intestine
large intestine
rectum
anus
carnivore
herbivore
ominvore
producer
consumer
predator
prey
food chain

Year 5/6

Y5

- Describe the changes as humans develop to old age.
- Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. (Y5 - Living things and their habitats)
- Describe the life process of reproduction in some plants and animals. (Y5 - Living things and their habitats)

Y6

- Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.
- Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.
- Describe the ways in which nutrients and water are transported within animals, including humans.
- Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals. (Y6 - Living things and their habitats)
- Give reasons for classifying plants and animals based on specific characteristics. (Y6 - Living things and their habitats)

circulatory system
heart
blood
blood vessels
pumps
oxygen
carbon dioxide
lungs
nutrients
water
diet
exercise
drugs

ELECTRICITY – YEAR 4

Year 4	Year 6
• 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.	• Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. • Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. • Use recognised symbols when representing a simple circuit in a diagram

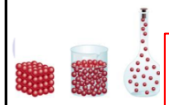
electricity appliances/device mains plug electrical circuit complete circuit circuit diagram circuit symbol components cell battery positive/negative connect/connection loose connection	short circuit wire crocodile clip bulb bright/dim switch buzzer motor fast(er)/slow(er) conductor insulator metal/non metal	electricity appliances/device electrical circuit complete circuit circuit diagram circuit symbol components cell battery positive/negative terminal connect/connection loose connection short circuit	wire crocodile clip bulb bright/dim switch buzzer volume motor fast(er)/slow(er) conductor insulator metal/non metal voltage current

SOUND– YEAR 4

Year 4	KS3
• 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.	• Waves on water as undulations which travel through water with transverse motion; these waves can be reflected, and add or cancel – superposition. • Frequencies of sound waves, measured in Hertz (Hz); echoes, reflection and absorption of sound. • Sound needs a medium to travel, the speed of sound in air, in water, in solids. • Sound produced by vibrations of objects, in loud speakers, detected by their effects on microphone diaphragm and the ear drum; sound waves are longitudinal. • Auditory range of humans and animals. • Pressure waves transferring energy; use for cleaning and physiotherapy by ultra-sound. • Waves transferring information for conversion to electrical signals by microphone.

sound sound source noise vibrate/vibration travel solid/liquid/gas pitch tune high/low volume loud/quiet	fainter muffle strength of vibrations insulation instrument percussion strings brass woodwind tuned instrument		

STATES OF MATTER - YEAR 4



Year 1	Year 2	Year 3	Year 4	Year 5
• Distinguish between an object and the material from which it is made. • Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. • Describe the simple physical properties of a variety of everyday materials. • Compare and group together a variety of everyday materials on the basis of their simple physical properties.	• Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. • Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.	• 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. • Notice that some forces need contact between two objects, but magnetic forces can act at a distance.	• 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.	Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. • 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, including through filtering, sieving and evaporating. • Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic. • Demonstrate that dissolving, mixing and changes of state are reversible changes. • 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.
object material wood plastic glass metal water rock brick paper fabrics elastic foil card/cardboard rubber wool clay	hard soft stretchy stiff bendy/floppy waterproof absorbent breaks/tears rough smooth shiny dull see through not see through	suitable/unsuitable use/useful object material property wood plastic glass metal water rock brick paper fabrics elastic foil card/cardboard rubber wool clay hard soft stretchy rigid	waterproof absorbent strong/weak rough smooth reflective non reflective transparent opaque translucent shape changed push/pushing pull/pulling twist/twisting squash/squashing bend/bending stretch/stretching pinch/pinching poke/poking roll/rolling squeeze/squeezi	rock stone pebble boulder soil fossils grains crystals hard/soft texture absorb water let water through marble chalk granite sandstone slate sandy soil clay soil chalky soil peat	states of matter solid liquid gas air oxygen powder grain/granular crystals change state ice/water/steam water vapour heated/heating cooled/cooling temperature degrees Celsius melt freeze solidify melting point molten boil boiling point Evaporate	Condense condensation water cycle precipitation transpiration	dissolve solution soluble insoluble solute solvent particle mix/mixture filtering sieving evaporating residue condensing reversible changes burning gas given off rusting solubility electrical conductivity thermal conductivity