

Science Curriculum Coverage Map – Physics




EYFS

- explore shadows & rainbows.
- explore how wind and water move objects

Year 1

- observe changes across the four seasons
- observe and describe weather associated with the seasons and how day length varies.

Year 2



- to identify sources of sounds and make sounds.

- identify how sounds are made, associating some of them with something vibrating

Year 4

- identify common appliances that run on electricity
- construct a simple series electrical circuit, identifying and naming its basic parts; cells, wires, bulbs, switches and buzzers

- 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

Year 3

- recognise that shadows are formed when the light from a light source is blocked by an opaque object change

- recognise that light from the sun can be dangerous and that there are ways to protect their eyes.
- notice that light is reflected from surfaces

- recognise that vibrations from sounds travel through a medium to the ear
- find patterns between the volume of a sound and the strength of the vibrations that produced it

- find patterns between the pitch of a sound and features of the object that produced it

- recognise that sounds get fainter as the distance from the sound source increases.


- 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

- predict whether two magnets will attract or repel each other, depending on which poles are facing
- describe magnets as having two poles

- observe how magnets attract or repel each other and attract some materials and not others
- notice that some forces need contact between two objects, but magnetic forces can act at a distance

- recognise that they need light in order to see things and that dark is the absence of light
- find patterns in the way that the size of shadows

- 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.



- 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.

Year 5

Earth and Space

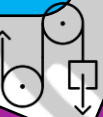
- describe the movement of the Earth, and other planets, relative to the Sun in the solar system
- describe the movement of the Moon relative to the Earth

Year 6




- explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object
- identify the effects of air resistance, water resistance and friction, that act between moving surfaces

- recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.




- describe the Sun, Earth and Moon as approximately spherical bodies
- use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.



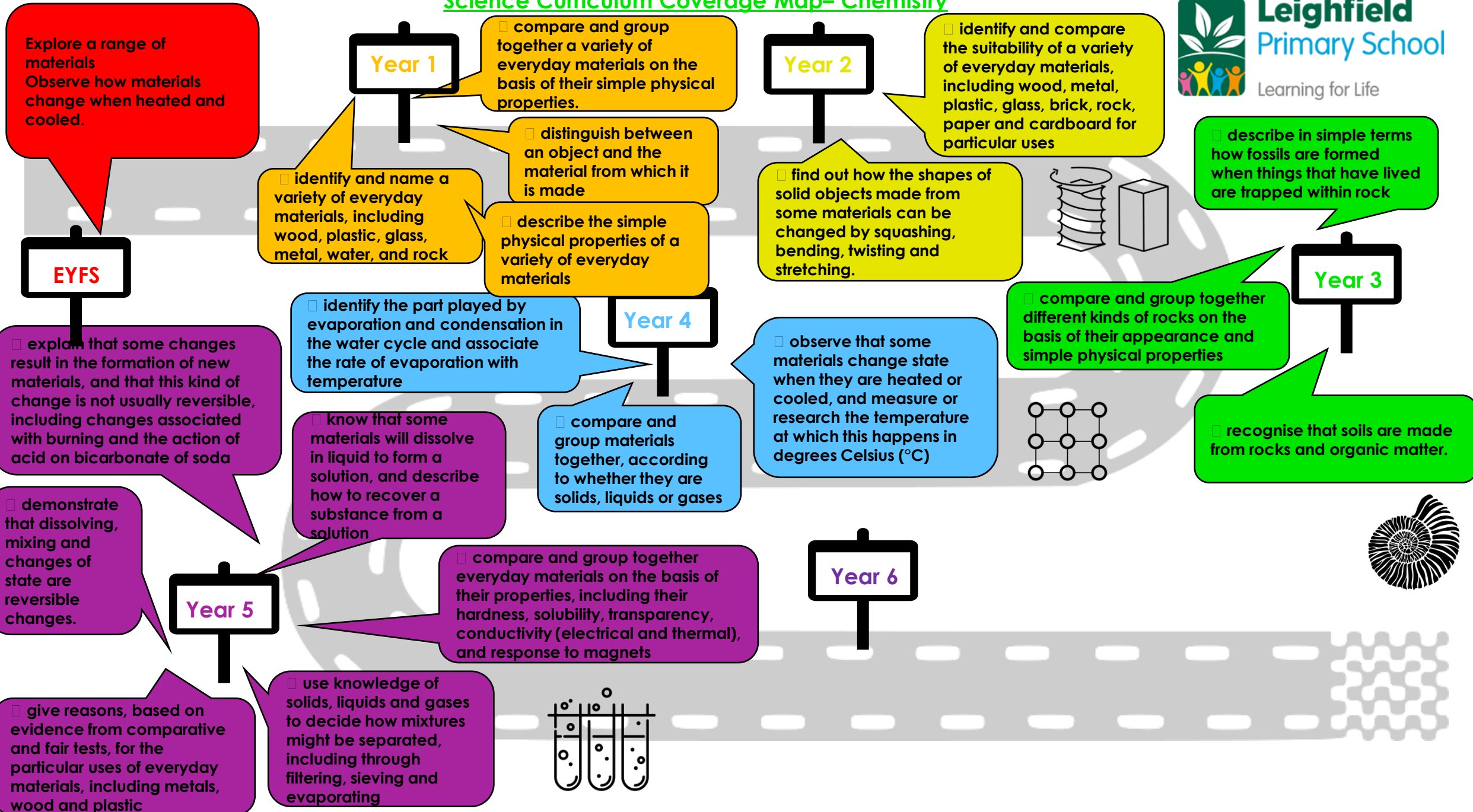
- explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes
- use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.

- associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit

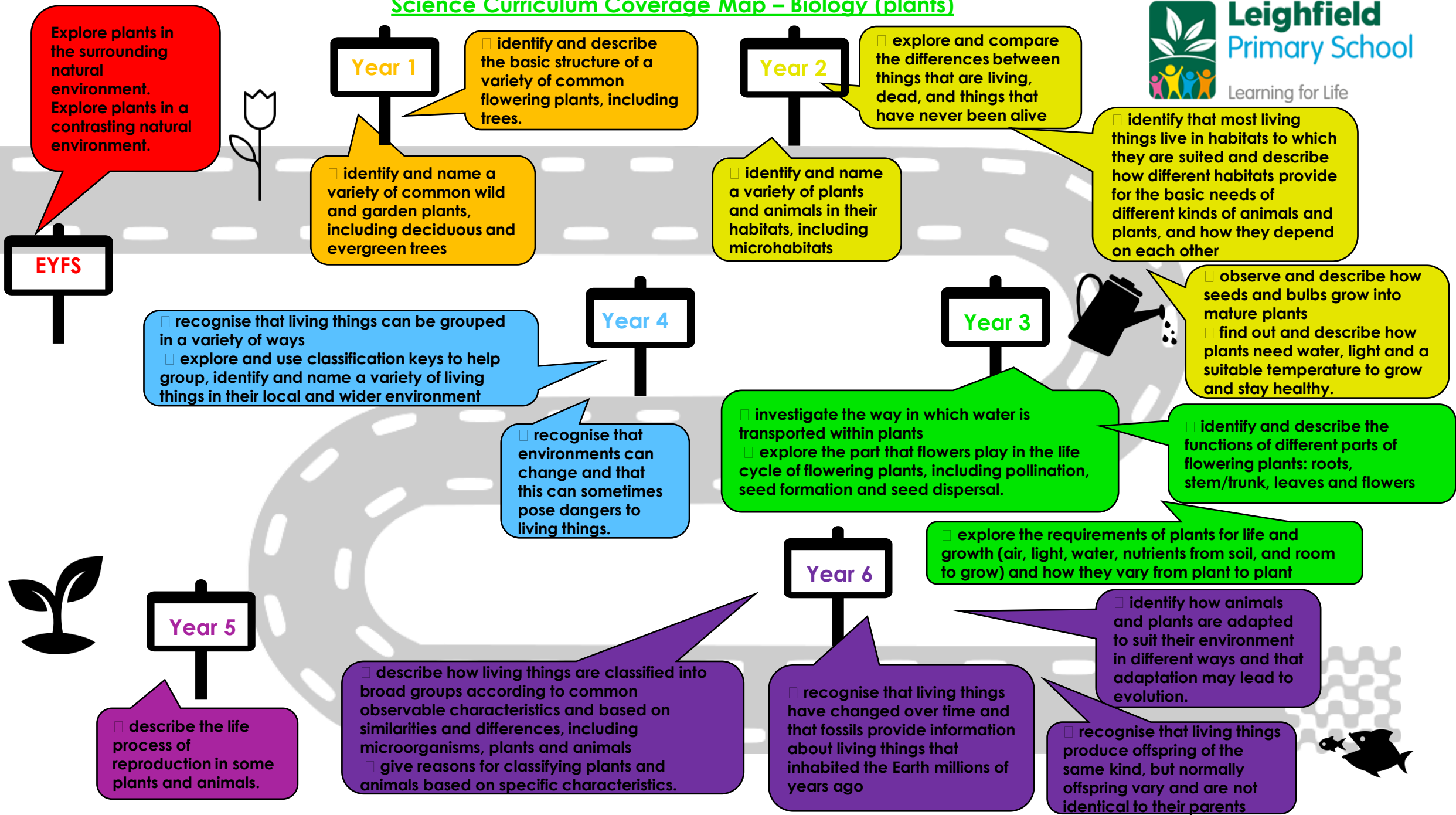


- recognise that light appears to travel in straight lines
- use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye

Science Curriculum Coverage Map- Chemistry



Science Curriculum Coverage Map – Biology (plants)



Science Curriculum Coverage Map – Animals

Name and describe animals that live in different habitats. Describe different habitats.

EYFS



identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals

Year 1

identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense

Year 2

explore and compare the differences between things that are living, dead, and things that have never been alive

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)

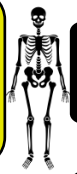
describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.

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

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

Year 4

identify and name a variety of plants and animals in their habitats, including microhabitats



Year 3

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.

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.

recognise that environments can change and that this can sometimes pose dangers to living things.

identify that humans and some other animals have skeletons and muscles for support, protection and movement.

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

Year 5

describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird

recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function

identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood



Year 6

identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

describe the ways in which nutrients and water are transported within animals, including humans.

describe the changes as humans develop to old age.

describe the life process of reproduction in some plants and animals.

recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago

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.

recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents