






Knowledge Organiser Science: Animals including humans: basic needs

Concept: Evolution, Ecosystems

Key Vocabulary	
oxygen	A colourless, odourless gas
shelter	Provides safety from weather and predators
reproduce	Have offspring/babies
herbivore	An animal that eats plants.
carnivore	An animal that eats other animals.
omnivore	An animal that eats plants and other animals.

Basic Needs of Animals	
Water - Many animals drink water to survive. - Some animals get their water from oxygen. 	
Food - Animals use food to get the energy and nutrients that they need. 	Shelter -Examples are: burrows, nests and dens. 
Oxygen -All animals, including humans need oxygen to live. -Oxygen exists in the air, in the soil, and even in the water. 	Temperature -Sunlight and heat are vitally important to all animals. This gives animals the energy that they need. 

Animal Life Stages



All animals **reproduce**.

-For example, mammals give birth to live young, whilst fish lay eggs.

reptile

mammal

fish

amphibian

bird

Knowledge Organiser Science: Humans – exercise, balanced diet, health and well-being

Concept: Ecosystem

Key Vocabulary

exercise	Physical activity that makes the body strong and healthy.
pulse	The number of times your heart beats in a minute.
balanced diet	Eating the right amount from each food group.
hygiene	Keeping yourself and your surroundings clean.
mental health	How a person is feeling inside their mind.



These help stop the spread of germs:

- * Brushing your teeth
- * Washing your hands regularly
- * Washing our hair and bodies regularly



**Bread, rice, pasta
and potatoes and
other starchy foods**

**Fruit and
vegetables**



**Meat, fish,
eggs and
beans and
other non-
dairy
sources
of protein**

**Food and
drink high
in fat
and/or
sugar**

**Milk and
dairy
foods**

Knowledge Organiser Science: Plants

Concept: Evolution Ecosystems

Key Vocabulary

plant	A living thing that usually grows in soil.
germination	When a plant starts to grow from a seed or bulb.
sprout	Starts to grow visible shoots
embryo	A baby plant
seed coat	A tough layer on the outside to protect the plant
food store	A store of food to help them continue growing
seed dispersal	When seeds get moved away from the original plant.

What Plants Need to Grow

Water and Nutrients

-Plants get water from the soil through their roots.



-They can also catch water on their leaves.

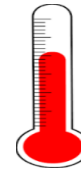
Light

-Plants do not eat food. They instead use sunlight to make their own food.



Temperature

-Plants need the temperature to be just right for them to grow properly.

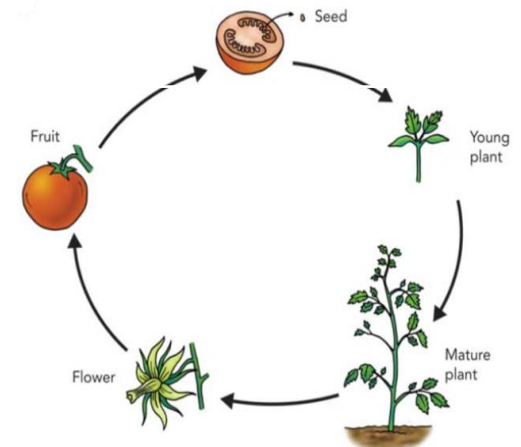


Space and Time

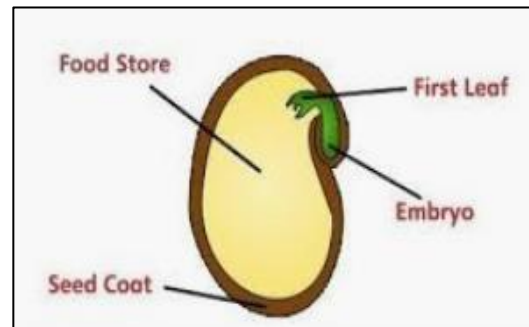
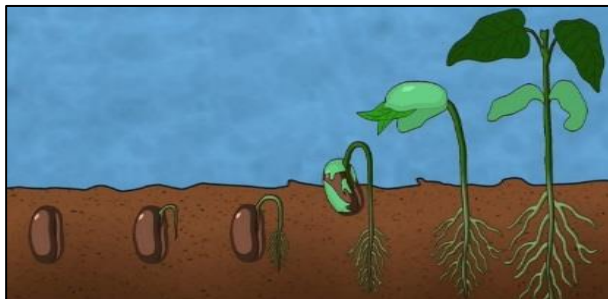
-Plants need room for their roots and stems to be able to grow.
-It can take days, months or even years for them to grow.



Plant Life Cycle



Growth from Seeds/Bulbs into Mature Plants



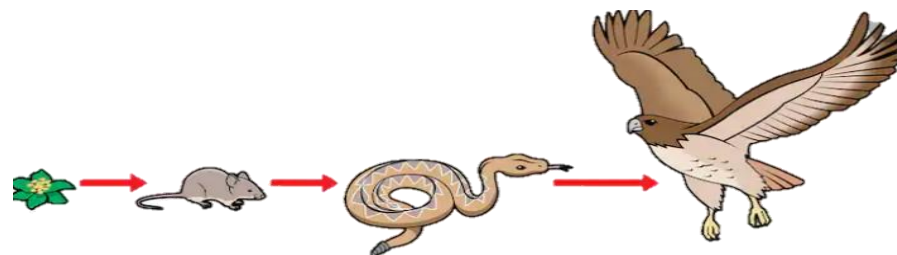
Knowledge Organiser Science: Living things and their Habitats

Key Vocabulary	
habitat	A place where an animal or plant lives.
micro-habitat	A very small habitat.
adapt	How animals or plants change to fit their environment.
nutrition	Getting the food needed for health and growth
conditions	What it is like there (the temperature, the rainfall, how crowded it is)
classification	Where plants or animals are placed into groups according to their similarities.

Concept: Ecosystems

Food Chains

- Every living thing needs food in order to create energy. This process is called nutrition.
- Animals need to eat food (either plants or other animals) in order to get energy.
- Living things depend upon one another to live.



Habitats

Examples of habitats include:

desert



rainforest



woodland



ocean



meadow



seashore

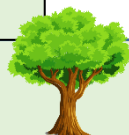


Alive

tiger



tree



Dead

bone



fallen leaves



Never Been Alive

saucepan



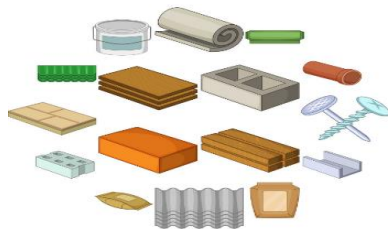
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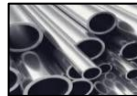
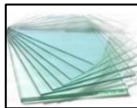



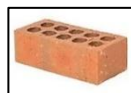
Knowledge Organiser Science: Use of everyday materials

Concept: Chemistry

Key Vocabulary	
natural	A material that comes from animals, plants or the Earth.
man-made	A material made by people.
transparent	A material which lets light through
rigid	Cannot change shape easily.
absorbent	Soaks up liquid
flammable	Easily set on fire
flexible	Can change shape easily.
waterproof	Does not allow water to pass through it.



Materials are the substances that things are made from.

Materials			
Material		Properties	What could it be used for?
metal		strong, shiny, hard and long-lasting, can be hammered into different shapes	pots, pans, tin cans and wires
glass		strong, but thin glass shatters, is transparent and waterproof	windows, glass, mirrors and windscreens
wood		hard, strong, flammable, long-lasting and is a natural product	furniture build houses
plastic		can be tough or flexible dyed different colours can be made transparent	make packaging, bottles and toys
rubber		extremely tough, but also very flexible elastic and also waterproof, doesn't tear easily	tyres, elastic bands
brick		hard and strong, difficult to break thick and stores heat well	used to make buildings