






Knowledge Organiser Year 2 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	Eats plants
carnivore	Eats other animals
omnivore	Eats plants and 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

birth → growth → reproduce → death

All animals **reproduce**.

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

reptile

mammal

fish

amphibian

bird

Concept: Evolution

Key Vocabulary

exercise	Physical movement to build muscle and keep healthy
balanced diet	Eating the right amount from each food group
hygiene	Things we do to help prevent illness and keep healthy
nutrition	Getting the necessary food for health and growing

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 Year 2 Science: Plants

Key Vocabulary

plant	Plants are a large group of living things that use sunlight to make their own food.
germination	It is the name for when a plant starts to grow.
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
nutrient	A substance that provides nourishment for growth

Concept: Evolution Ecosystems

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.



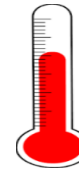
Light

- 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.

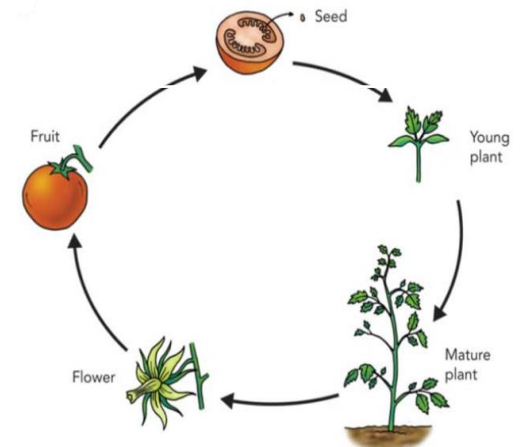


Space and Time

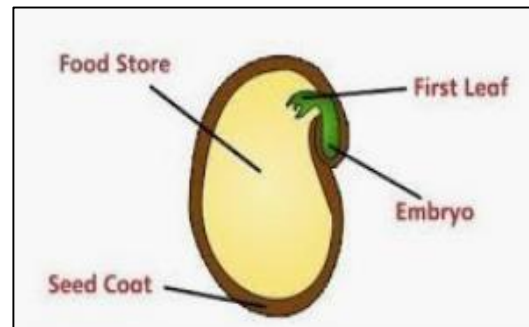
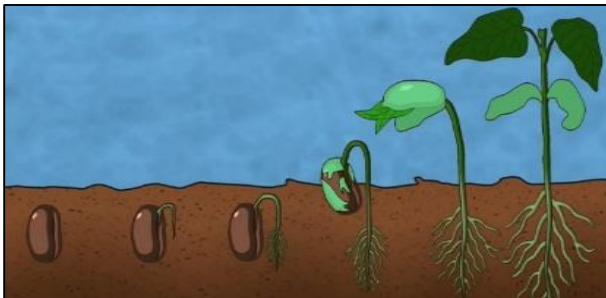
- Plants need room for their roots and stems to be able to grow.
- It can take days, months or even years for them to grow.



Plant Life Cycle



Growth from Seeds/Bulbs into Mature Plants



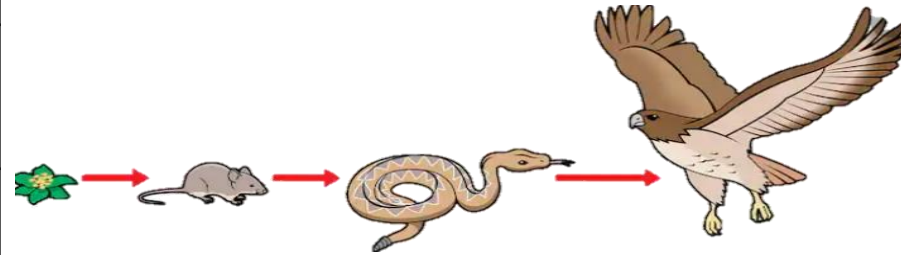
Knowledge Organiser Year 2 Science: Living things and their Habitats

Key Vocabulary	
habitat	It is a home environment for plants, animals, and other living things.
micro-habitat	Are small, specific home environments: individual trees, a pond, under a rock, or a pile of logs.
migrate	To move from one region or habitat to another according to the seasons
nutrition	Getting the food needed for health and growth
environment	An environment contains many habitats and these include areas where there are both living and non-living things.
classification	The is 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

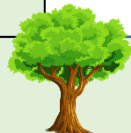


Alive

tiger



tree



Dead

bone



fallen leaves



Never Been Alive

saucepan



phone

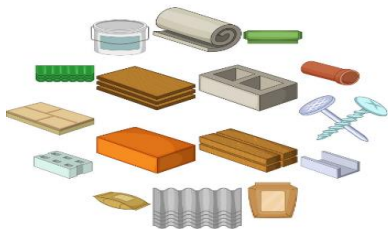


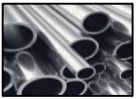
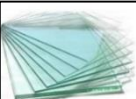




Knowledge Organiser Year 2 Science: Use of everyday materials

Concept: Chemistry

Materials are the substances that things are made from.

Key Vocabulary	
natural	Natural materials are found in nature and are not made by people.
man-made	Man-made things are created by people.
transparent	A material which lets light through
rigid	Unable to bend or be forced out of shape
absorbent	Soaks up liquid
flammable	Easily set on fire
flexible	How a material bends, stretches
waterproof	Keeps out water, doesn't let liquid through



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