LIVING THINGS

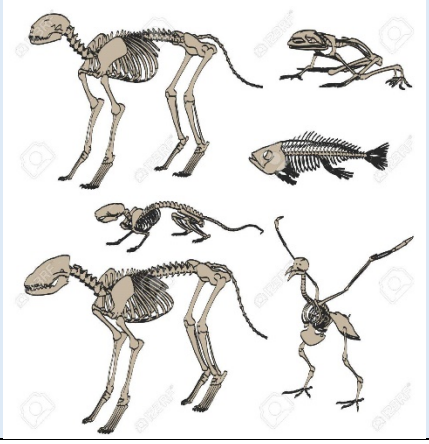
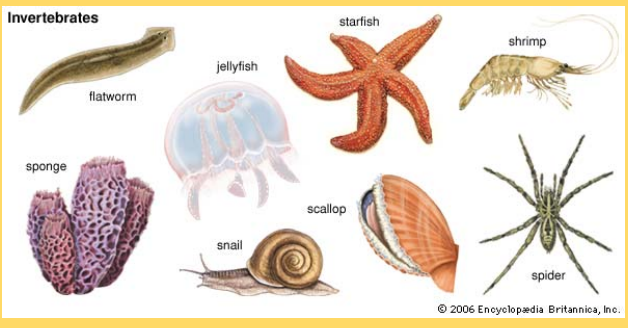
KINGDOMS

To study living things we divide them into groups called **kingdoms**.

LIVING THINGS		
KINGDOMS		
ANIMAL KINGDOM	PLANT KINGDOM	FUNGI KINGDOM
• They **can move around**. • They **eat other living things**.	• They **can't move around**. • They **make their own food**.	• They **can't move around**. • They **don't make their own food**. They **eat** the **remains of dead living things** or **grow and feed on things that are still living**.

ANIMAL KINGDOM

We divide animals into two big groups:

ANIMALS	
VERTEBRATES	INVERTEBRATES
They have a backbone. 	They don't have a backbone. 

VERTEBRATES

HOW THEY FEED	HOW THEY BREATHE	HOW THEY REPRODUCE
➢ Herbivores They eat plants. ➢ Carnivores They eat other animals. ➢ Omnivores They eat plants and other animals.	➢ Through **lungs:** mammals, birds, reptiles and adult amphibians. ➢ Through **gills:** fish and young amphibians. ➢ Through **skin**: adult amphibians.	➢ **Viviparous** They are born directly from their mother. (Mammals) ➢ **Oviparous** They reproduce by laying eggs. (All other groups) ➢ **Ovoviviparous** The eggs develop and hatch inside the mother's body.

INVERTEBRATES

MOLLUSCS

- They have a **soft muscular body**.
- Some have a **shell**.
- Some live **on land** but most live **in water**.

JELLYFISH

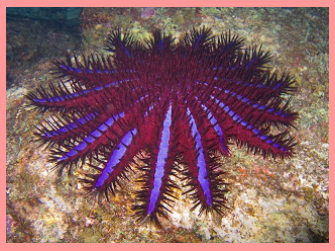
- They have a **soft body** called the **umbrella** and often have long **tentacles**.
- They have a **hole** under the umbrella (**mouth** and **anus**).
- They live in the **sea**.

SPONGES

- They have **soft bodies** covered with **small holes**.
- They take in **oxygen** and **food** through the holes.
- They stay on the **seabed**.

ECHINODERMS

- They are protected from predators by **hard skin** or **spines**.
- They are often **brightly coloured**.
- They live **in the sea**.

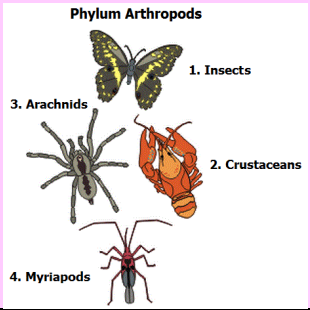


ANNELIDS

- They have a **soft body** divided into **segments**.
- Some of them live **in the sea**. Others live **on land**.

ARTHROPODS

- They have a **head**, a **thorax** and **abdomen**, **jointed legs** and a **hard protective exoskeleton**.
- There are different groups depending on the number of legs:
  - **Insects** (6 legs).
  - **Arachnids** (8 legs).
  - **Crustaceans** (10 legs).
  - **Myriapods** (A lot of pairs of legs).



PLANT KINGDOM

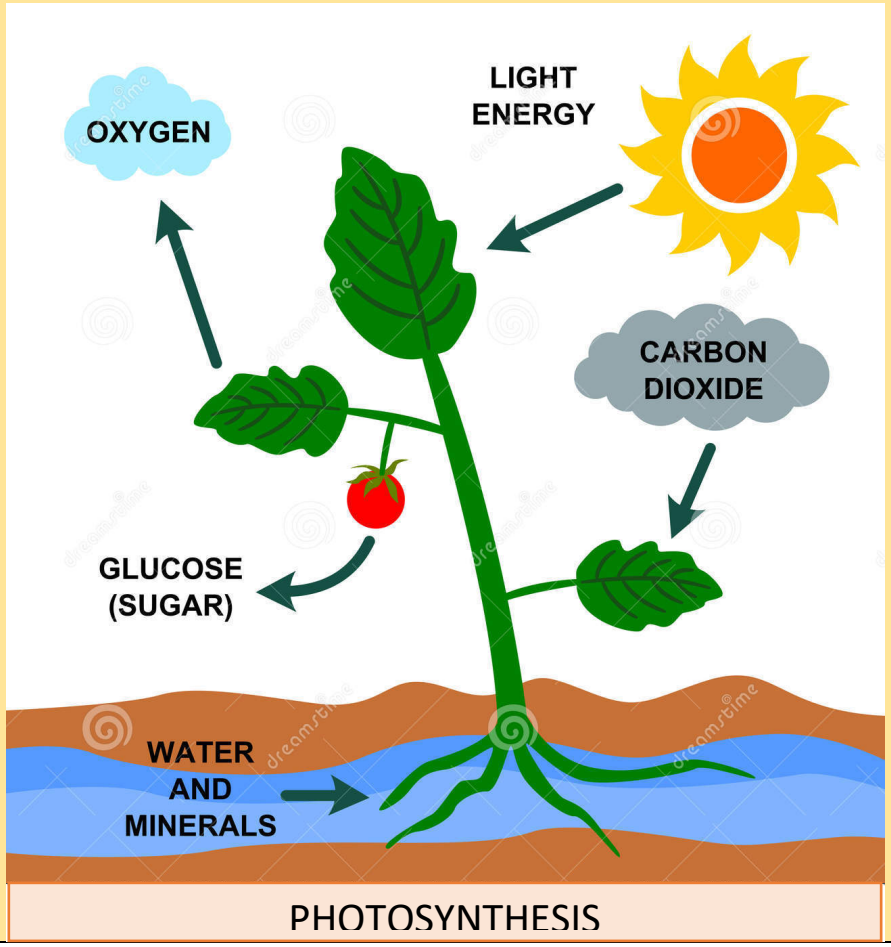
PLANT NUTRITION AND RESPIRATION

1. PHOTOSYNTHESIS

Plants **make their own food**, called **glucose**, through a process called **photosynthesis**. It takes place in the **leaves**.

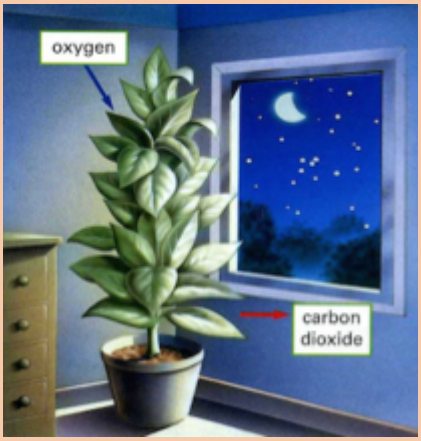
Plants absorb **water and minerals** through their roots. They go up the stem to the leaves. Leaves contain **chlorophill**. This absorbs energy from **sunlight**. Leaves absorb **carbon dioxide** from the air.

During photosynthesis plants **release oxygen** into the air.



2. RESPIRATION

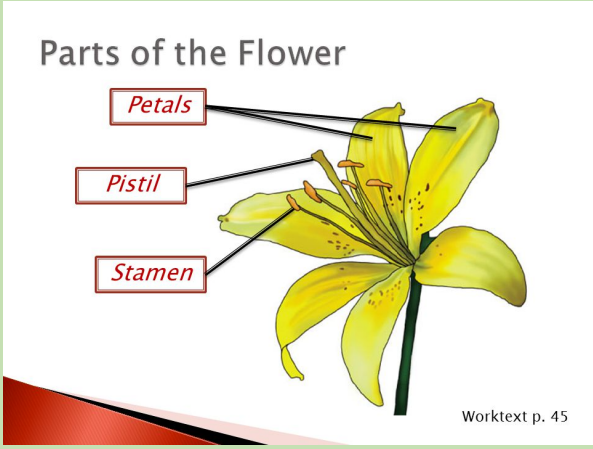
During **respiration**, plants **absorb** **oxygen** and **release** **carbon dioxide** and **water**.



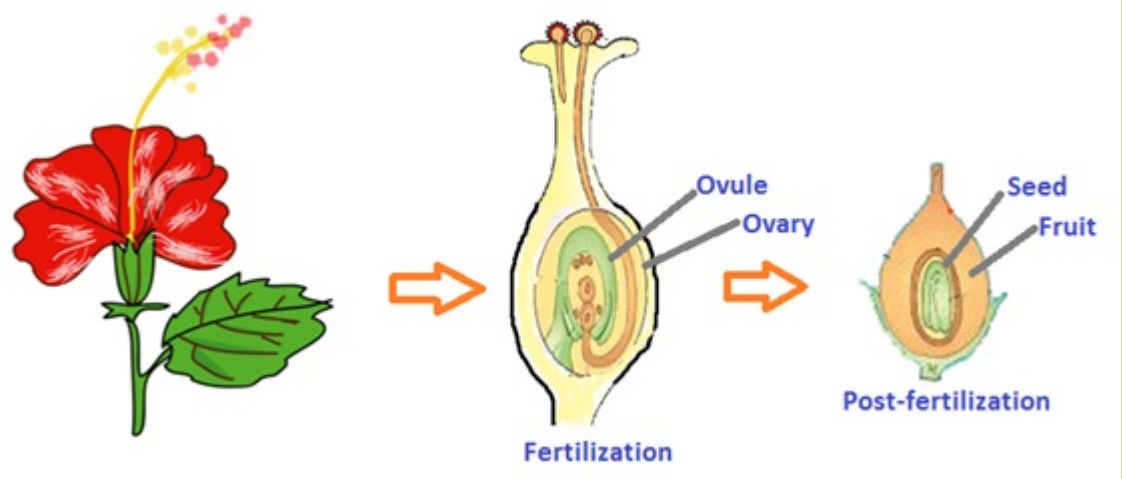
PLANT REPRODUCTION

SEXUAL REPRODUCTION

Most flowering plants reproduce by sexual reproduction.
Flowering plants develop flowers that have sexual organs.



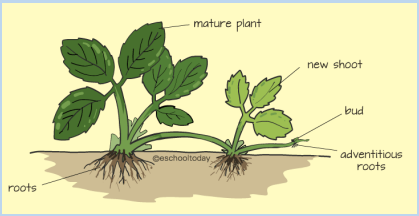
Pollen goes to the **stamen** of one flower to the **pistil** of a different or the same flower. This is called **pollination**. (Insects and wind help pollination to happen).
Then, the **pollen** joins an **ovule** to make a **seed**. This is called **fertilization**. The pistil grows around the seed into a fruit. The seed is dispersed in different ways. The seed grows into a plant.



ASEXUAL REPRODUCTION

Non-flowering plants don't use flowers for reproduction.
In **asexual reproduction** there are **no flowers or fertilization**.

TYPES OF ASEXUAL REPRODUCTION



Runners are stems which grow along the ground.
Buds grow from the stems and develop into new plants.

Tubers are swollen stems which grow under the ground.
Buds grow from the tubers and develop into new plants

Some flowering plants, such as the strawberry, use **sexual and asexual reproduction**.