Identification and classification

- Life on earth is incredibly diverse and scientists find it useful to divide it into smaller groups in order to study and understand it better.
- This is done by looking for similarities within and differences between groups.
- This is called classification.

The plant kingdom

- It might seem obvious to us that plants are very different to animals and indeed biologists refer to the plant kingdom and the animal kingdom (there are some others too).
- Within the plant kingdom there are lots of smaller groupings each with more specific similarities.
- Today we are going to look at:

  mosses, ferns, conifers, grasses and

  flowering plants

On the following slides you will find descriptions of some of the specific characteristics that define each of these groups.

Can you use this information to correctly identify each of the **Plant Classification Pictures**?

You need to decide if the picture is of a moss, fern, conifer, grass or flowering plant.

Mosses

Characteristics:

Live in damp places

Thin leaves that lose water easily

No proper roots or stems

Make tiny spores instead of seeds, these spores are carried by the wind

Ferns

Characteristics:

Have strong stems, roots and leaves.

Leaves have a waxy (cuticle) layer to reduce water loss.

Have tubes called **xylem** inside the plant to transport water and give the plant support.

Release spores from the underside of the leaves.

Conifers

Characteristics:

Many are evergreen, keeping their leaves throughout the year.

Leaves are needle shaped to reduce water loss.

They contain **xylem** for transporting water and giving support.

They do not have flowers, instead they make male and female **cones**.

Grasses

Characteristics:

Hollow stems with swollen joints called nodes.

Stems rarely branch above the ground

Leaves grow from the stems, the lower part of the leaf will protect young shoots.

Leaves are long and narrow with parallel sides.

Flowering Plants

Characteristics:

Have flowers containing the reproductive organs.

Pollen (male sex cell) is carried from one plant to another by the wind or insects

Flowers make seeds after **fertilisation,** these grow into new plants.

Flowering plants are very good at colonising the land. They can live in dry and hot places where there is little water

Extension task:

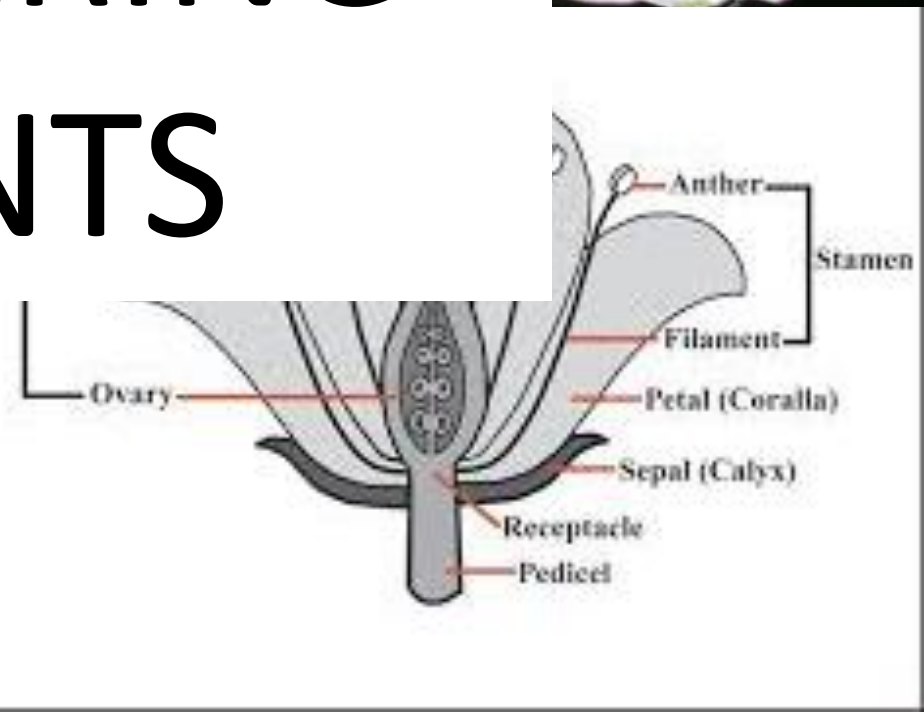
Can you find examples of each plant type in your garden or local nature area?

ANSWERS

FERNS

MOSSES

FLOWERING PLANTS




GRASSES
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CONIFERS