

Plants

Parts, functions, water & life cycle

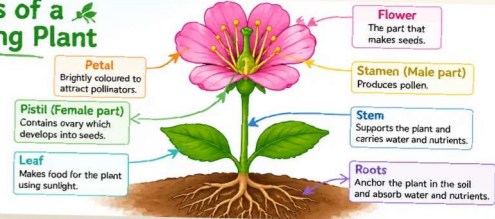


1. What are the parts of a flowering plant, and what does each do?

Roots, stem, leaves and flowers each have a **different job** in keeping the plant alive.

- Roots anchor the plant and absorb water and nutrients.
- Leaves make food using sunlight; flowers make seeds.

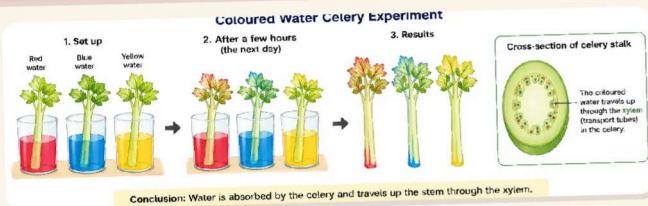
Parts of a Flowering Plant



3. How does water travel up through a plant?

Water travels up the stem through tiny tubes, in a process called **transpiration**.

- Placing a celery stick in coloured water shows the tubes carrying water up.
- Water eventually reaches the leaves and evaporates from small holes.



2. What do roots do, and how do we investigate them?

Roots **anchor** the plant in soil and **absorb water and minerals**.

- Growing seeds in clear pots lets us observe root growth over time.
- Roots grow downwards and outwards to find water in the soil.

4. Why do flowers matter for a plant's life cycle?

Flowers contain the parts needed for **pollination** and **seed formation**.

- Insects like bees carry pollen between flowers, which leads to seeds forming.
- Once seeds are made and dispersed, they can grow into new plants.

5. How are seeds dispersed away from the parent plant?

Seed dispersal spreads seeds by wind, water, animals, or explosion so they don't compete with the parent plant.

- Winged seeds (like sycamore) spin away on the wind.
- Hooked seeds (like burdock) cling to animal fur to travel further.



6. Greater Depth: does light affect how tall and healthy a plant grows?

A plant grown in the dark grows pale, weak and leggy as it stretches to search for light.

- We can test light vs dark spots, keeping water and soil the same.
- Measuring height and colour over several weeks reveals the effect clearly.



7. TAPS: How do we write up our light & growth investigation?

FAIR TEST

Our TAPS test: **does light affect how a plant grows?** It's a **fair test** — we change only the light (a light spot vs a dark spot) and keep the water, soil and plant type the same.

- Question → **prediction** → variables (change / keep same / measure).
- Materials → **method** → carry out the test → **results** → **conclusion**.

Plant Growth Experiment: Light vs Dark

Results	Light (12 hours of light per day)				Dark (12 hours of darkness per day)				Observations
Plant	Plant Height (cm)	Number of Leaves	Leaf Color	Stem Strength (1-5)	Plant Height (cm)	Number of Leaves	Leaf Color	Stem Strength (1-5)	

KEY VOCABULARY

root stem leaf flower transpiration pollination seed dispersal absorb anchor
fair test predict conclusion

SKILLS I'LL USE

- Observe over time
- Set up a simple fair test
- Measure & record growth in a table
- Label a diagram accurately
- **GD:** explain results using plant function vocabulary