8B Plants and their Reproduction

1. Classification and Biodiversity

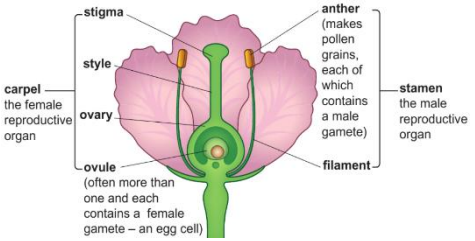
Classification	Sorting organisms into groups based on their characteristics.
Kingdoms	The five largest groups. *animals, fungi, protoctists, prokaryotes and plants*.
Plants	Members of the plant kingdom have cellulose cell walls, are multicellular and make their own food.
Biodiversity	The number of difference species in an area.
Advantages of High Biodiversity	Recover faster from disasters and useful substances can be found (medicines).
Extinct	When an organism dies out completely.

2. Types of Reproduction

Sexual Reproduction	Two organisms breeding to produce offspring.
Hybrids	The offspring of two different species- they are not fertile.
Fertile	Can produce offspring.
Inherited Variation	Characteristics inherited from parents (due to DNA).
Gametes	Sex cells
Zygote	The fertilised egg cell formed when the male and female gamete join.
Asexual Reproduction	Reproduction involving only one parent- produces offspring identical to the parent (clones).

3. Pollination

Plant Reproductive System



Pollen	Male gamete that ripens inside the anthers.
Pollination	The pollen grain carried away and transferred to the stigmas of another plant can be by animals/wind/water/
Self-Pollination	Pollen grains from a plant land on the stigma of the same plant.
Cross-Pollination	Pollen transferred from one plant to another.

4. Fertilisation and Dispersal

Pollen Tube	Formed when a pollen grain reaches a stigma of the same species. It grows down to the ovule.
Fertilisation	The egg cell and the male gamete from the pollen grain join together to form a zygote.
Cell Division	The process by which the cell splits into two.
Embryo	Formed when the cells divide again and again.
Seed	The ovule becomes a seed. Inside the seed is the embryo and a food source.
Seed Coat	Hart outer coating of seed to protect it.
Germinate	The seed starts to grow.
Fruit	The ovary swells up and forms the fruit around the seed.
Seed Dispersal	The spreading of seeds away from the parent plant.
Attracting Animals	Fruits are fleshy, soft, juicy and taste good to attract animals for seed dispersal.
Egested	Seeds are passed out by animals in their faeces.
Other Seed Dispersal Methods	Wind, water and explosions- useful so that new plants aren't in competition with the parent plant.

5. Germination and Growth

Resources	What a plant needs to grow/germinate.
Respiration	The process of releasing energy from glucose.

Respiration Word Equation

glucose + oxygen → carbon dioxide + water

Photosynthesis Word Equation

carbon dioxide + water ⟶ glucose + oxygen

Starch	Glucose is converted to starch to store it.