

Key Stage 3 Precise Learning Points



Unit Number	B4
Unit Title	Plants
Chapter	Plant Reproduction

Key Scientific Points

1. The plants make their own food from water and carbon dioxide, using sunlight as energy, in the green parts of plants (mainly leaves)
2. Plants have roots to provide support and to draw moisture from the soil, through stems to take water to the rest of the plant
3. Seed dispersal improves chances of enough seeds germinating and growing to maturity.
4. Seeds and bulbs need the right conditions to germinate.
5. Seeds contain a food store for the first stages of growth (i.e. until the plant is able to produce its own food)
6. Flowering plants reproduce sexually when the pollen from one plant meets lands on the stigma of another.
7. Different flowering plants have different ways to transfer pollen from one plant to another.
8. Some plants can reproduce asexually from a single parent and so are identical to that parent.
9. The nucleus of each cell contains DNA.
10. DNA determines many characteristics of an individual.
11. DNA from both parents is passed onto the offspring during sexual reproduction and so offspring are similar but different to their parents and similar but different to their siblings... variation.
12. During sexual reproduction in plants male sex cells (pollen), fertilises the female sex cell (ovum). The pollen is transferred from stamen to stigma (pollination), is transferred down the pollen tube to the ovary where fusion of the two nuclei occur (fertilisation)
13. Once fertilised the seed grows and the ovary swells making the fruit.
14. When mature, seeds are dispersed (by a wide variety of methods), the more widely seeds are dispersed the greater the chance it has of attaining the conditions it needs to grow into a mature plant
15. Plant reproduction through insect pollination is important in human food security.