

**Working Scientifically Skills Coverage in This Unit:**

- Questioning and enquiring planning
- Observing and measuring
- Pattern seeking
- Investigating
- Recording and reporting findings
- Identifying, grouping and classifying
- Research
- Conclusion
- Vocabulary

**Common Misconceptions:**

- Trees are not plants. **Fact: Trees are plants.**
- Many flowering plants have been mistaken to be non-flowering plants due to inconspicuous flowers or infrequent flowering. **Fact: Mosses and liverworts, ferns and conifers are non-flowering plants. Most other plants are flowering plants.**
- Non-green plant parts have no chloroplasts. **Fact: Non-green plant parts do not have chlorophyll, but they may have chloroplasts which contain accessory pigments like carotene, which gives autumn leaves a yellow colour.**
- Minerals in the soil, water and carbon dioxide are food for plants. **Fact: Plants make their own food. Minerals help in plant growth and health. Water and carbon dioxide are ingredients for photosynthesis.**
- Roots are organs for feeding. **Fact: Roots absorb minerals and water for the plants. Minerals and water are not food for plants.**
- Leaves take in water; the main function of leaves is to capture rain, water or dew; water vapour moves into the leaf during photosynthesis. **Fact: Roots take in water. The main function of leaves is to carry out photosynthesis.**
- Fertilisers are plant food. **Fact: Fertilisers are not plant food. They supply minerals to the plants.**
- Plants carry out photosynthesis in the day and respiration at night. **Fact: Plants carry out respiration all the time and photosynthesis when there is light.**
- Plants breathe in carbon dioxide and breathe out oxygen. **Fact: Plants take in carbon dioxide in the day when photosynthesis takes place and gives out oxygen at night or in the dark when photosynthesis stops, as respiration continues to take place.**
- Respiration in plants occurs only in the cells of leaves, since only leaves have gas exchange pores. **Fact: Respiration takes place in all plant cells.**
- Plants do not respire, or they only respire in the dark. **Fact: Plants respire all the time.**

**Key Questions:**

Q: Why do plants need light?

Q: In which part of the plant is food made?



Q: What do the roots/stem/leaves do?  
Q: What attracts an insect to a flower?  
Q: What is pollination/fertilisation?  
Q: How does pollen get from one plant to another?  
Q: what happens to the petal of a flower when a seed is formed?  
Q: How does seed dispersal prevent overcrowding?

	<b>Learning Objective:</b>	<b>Success Criteria:</b>	<b>Main Activities &amp; Teaching Points:</b>	<b>Differentiated Activities:</b>	<b>Plenary Opportunities:</b>
Lesson 1					
Lesson 2					
Lesson 3					
Lesson 4					
Lesson 5 and 6					

**Notes: Use of Light levelled questions.**