

| 8B Plants and Their Reproduction | Knowledge, Skills and Understanding   |
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| Higher                           | <p>Use simple calculations (e.g. biodiversity index) to compare biodiversity</p> <p>Evaluate the advantages and disadvantages of sexual and asexual reproduction in plants in different conditions</p> <p>Evaluate different methods of pollination.</p> <p>Describe the importance of hybridisation in plant breeding.</p> <p>Explain the production of seedless fruits using hybridisation.</p> <p>Explain the importance of light/darkness for some seeds and their germination</p>  |
| Intermediate                     | <p>Identify the genus and species names from a binomial name</p> <p>Explain why preserving biodiversity is important (useful products, organism interactions, enriches our lives, disaster recovery)</p> <p>Explain how inherited variation is caused (does not include genes).</p> <p>Explain the difference in outcomes of asexual and sexual reproduction in plants</p> <p>Identify pollen grains and ovules as containing the male and female gametes</p> <p>Describe how the structures of a flower are adapted to their functions.</p> <p>Describe how plants avoid self-pollination.</p> <p>Explain why plants try to avoid selfpollination.</p> <p>Explain how some pollen grains are adapted to their functions.</p> <p>Explain the functions of the different parts of a seed.</p> <p>Explain the importance of seed dispersal.</p> <p>Evaluate different methods of seed dispersal.</p> <p>Explain the need for the different resources by a seed as it germinates.</p> <p>Explain the importance of pollination for the production of foods.</p> <p>Describe examples of interdependence and explain how changes in a population or community in an ecosystem affect other populations</p> <p>Explain how and why some seeds are prevented from germinating until a certain time</p>  |
| Foundation                       | <p>Describe the key characteristics of the five kingdoms of organisms and use this to assign organisms to their kingdoms.</p> <p>Correctly use the term biodiversity.</p> <p>Explain how organisms are classified, using smaller and smaller groupings of shared characteristics.</p> <p>Correctly use the terms asexual reproduction and sexual reproduction</p> <p>Recall ways in which plants reproduce asexually.</p> <p>Identify and give examples of inherited variation.</p> <p>Describe how the fusing of gametes (sex cells) and their nuclei during fertilisation form a fertilised egg cell</p> <p>Correctly use the terms species and hybrid.</p> <p>Correctly use the term pollination.</p> <p>Identify the main structures in a flower and identify those that are male and those that are female</p> <p>Use flower structure and pollen shape to identify wind-pollinated and insect-pollinated flowers</p> <p>Describe the functions of structures in flowers.</p> <p>Identify different structures within a seed.</p> <p>Identify different kinds of fruits and describe how they disperse seeds.</p> <p>Describe the events that occur after pollination leading to fertilisation</p> <p>Describe how the fusing of male and female gametes and their nuclei during fertilisation forms a fertilised egg cell (or zygote).</p> <p>Describe how a fertilised egg cell grows into an embryo.</p> <p>Describe a plant's life cycle using a diagram.</p> <p>Recall the resources needed for germination.</p> <p>Recall what happens in respiration.</p> <p>Describe what happens to the different parts of a seed during germination.</p> <p>Describe what happens in photosynthesis.</p> |