



Year 7 Reproduction and Photosynthesis		Lessons
Stage	Description	
Emerging	<p>Identify the structures and organs in the human reproductive system and identify the parts of the body that change in [males, females] during puberty.</p> <p>Identify the names of the structures surrounding the developing embryo that provide nutrition, oxygen, waste removal, protection and describe how oxygen, food and water are supplied to the foetus and how waste is removed from the foetus.</p> <p>List the main stages of giving birth in humans.</p> <p>State the meaning of: asexual reproduction and identify the main structures in a flower.</p> <p>Identify different kinds of fruits and describe how they disperse seeds.</p> <p>Recall the resources needed for germination.</p> <p>Recall that plants make their own food by photosynthesis and describe how leaves are adapted to take in carbon dioxide and absorb light.</p> <p>Recall that plants use glucose produced by photosynthesis to make new substances, including those needed for energy and growth.</p>	
Developing	<p>Describe the functions of the structures and organs of the human reproductive system and describe what happens to parts of the body during puberty and adolescence.</p> <p>Describe the stages in the menstrual cycle.</p> <p>Explain the importance of the health of the mother on the development of the foetus and describe how the developing foetus is protected inside the mother.</p> <p>Describe what happens during labour and birth in humans.</p> <p>Describe how plants such as strawberries and potatoes reproduce asexually.</p> <p>Describe how the structures of a flower are adapted to their functions and explain the functions of the different parts of a seed.</p> <p>Describe what happens to the different parts of a seed during germination.</p> <p>Interpret the word equations for photosynthesis.</p> <p>Describe how root hair cells, palisade cells, xylem cells and guard cells are specialised to be adapted to their functions.</p> <p>Describe some ways in which farmers increase the growth of their crops (fertilisers, pesticides, plant varieties).</p>	
Secure	<p>Suggest outcomes caused by problems with reproductive organs and explain why parts of the body change during puberty and adolescence.</p> <p>Use a knowledge of diffusion to explain the exchange of materials in the placenta and explain how the developing foetus is protected from inside the mother's uterus.</p> <p>Explain why the uterus lining is maintained if fertilisation occurs and explain what happens during labour and birth in humans.</p> <p>Explain the difference in outcomes of asexual and sexual reproduction in plants.</p> <p>Use flower structure to identify wind-pollinated and insect-pollinated flowers and analyse different fruits to draw conclusions about the flowers that formed them.</p> <p>Explain how seed dormancy helps the survival of a species.</p> <p>Explain how the rate of photosynthesis can be controlled by a limiting factor and consider the reasons why a farmer would or would not use certain farming methods</p> <p>Explain how root hair cells, palisade cells, xylem cells and guard cells are specialised to be adapted to their functions.</p>	
Excellence	<p>Use a knowledge of reproductive organs to suggest causes of reproductive problems and compare the changes to male and females at puberty.</p> <p>Use a knowledge of the menstrual cycle to predict the most likely time for fertilisation.</p> <p>Explain the exchange of materials in the placenta in terms of concentration gradients.</p> <p>Explain the different stages of the birth process and compare the use of technology to care for premature babies with natural systems.</p> <p>Evaluate the advantages and disadvantages of sexual and asexual reproduction in plants in different conditions.</p> <p>Explain how some pollen grains are adapted to their functions.</p> <p>Compare the life cycles of different plants that grow in different places and evaluate different methods of seed dispersal.</p> <p>Work out the balanced symbol equations for photosynthesis.</p> <p>Suggest why root hair cells, palisade cells, xylem cells and guard cells are specialised to be adapted to their functions.</p> <p>Explain how and why plants can be grown without soil.</p>	