AS Biology

Year 13 LP3

<table>
<tr>
<td colspan="3">This half term: Skills, Knowledge and Understanding to be developed:

Skills (students <u>WILL BE ABLE</u> to by the end of the Learning Programme): to dissect wind and insect-pollinated flowers; to undertake scientific drawing of cells from prepared slides of anther;

• Knowledge (students <u>WILL KNOW</u> by the end of the Learning Programme): the generalised structure of flowers to be able to compare wind and insect pollinated flowers; the process of the formation and structure of seed and fruit as shown by broad bean and maize;

• Understanding (students <u>WILL DEMONSTRATE THEIR UNDERSTANDING</u> by the end of the Learning Programme):. the development of pollen and ovules; the processes of cross and self-pollination; the process of double fertilisation;</td>
<td>Key Terms / Words:
Diocotyledonous; receptacle, calyx, sepal, corolla, petal, stamen, filament, anther, carpel, ovary, ovule, style; stigma; pollination; pollen mother cells; tetrad; tapetum; pollen; dehiscence; megaspores; nucellus; embryo sac; funicle, integuments, micropyle, embryo sac; synergids, polar nuclei, three antipodal cells;l micropyle; triploid; endosperm; hilum; integuments; fruit; testa; plumule, radicle; cotyledons; germination; imbibed; gibberellin; aleurone</td>
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<td>LP 3 – Week 1 & 2 Learning Outcomes:

SUMMATIVE ASSESSMENT (PRACTICE UNIT 3 EXAMINATION)
Students will apply and demonstrate Unit 1 knowledge and skills in an end of unit exam.

Plant Reproduction
• Students will be able to describe the processes of cross and self-pollination</td>
<td>Assessment
Mock exam
Grade</td>
<td>Success criteria:

Summative assessment
Correct answering of examination questions on plant reproduction</td>
<td>Homework LP 3

Prepare for next lesson
Read the relevant section in your A Level Biology Text Book to develop your skills, knowledge and understanding of plant reproduction</td>
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<td>LP 3 – Week 3 & 4 Learning Outcomes:

• Students will be able to describe the development of pollen and ovules,
• Students will be able to explain the process of double fertilisation
• Students will be able to describe the process of the formation and structure of seed and fruit as shown by broad bean and maize
• Students will be able to describe the process of germination of Vicia faba (broad bean) and the effect of gibberellin</td>
<td>Assessment
APP
Grade</td>
<td>Success criteria:

Correct answering of examination questions on applications of reproduction and genetics</td>
<td>Homework LP 3

Prepare for next lesson
Read the relevant section in your A Level Biology Text Book to develop your skills, knowledge and understanding of applications of reproduction and genetics</td>
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<td>LP 3 – Week 5 & 6 Learning Outcomes:

Genetics
Students will know, understand and use the following genetic terms: gene, locus, alleles, dominant, recessive, codominant, phenotype, genotype, homozygous, heterozygous, F_1 and F_2, autosomes and sex chromosomes.

Students will understand the principles of:
• monohybrid Mendelian inheritance including simple crosses involving codominance.
• dihybrid Mendelian inheritance including simple crosses involving linkage.
how Mendel used the results of experimental genetic crosses to derive his laws of inheritance and be able to apply these laws when solving genetic problems.</td>
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<td>Success criteria:

Correct answering of examination questions on applications of reproduction and genetics</td>
<td>Homework LP 3

Prepare for next lesson
Read the relevant section in your A Level Biology Text Book to develop your skills, knowledge and understanding of applications of reproduction and genetics</td>
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