

Bellerive FCJ Catholic College



Department: Biology

Year Group: 10

| Term | Learning Focus | Key Knowledge and Skills | Assessment | Challenge and Enrichment |
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| 1 | B1 Cell Biology | <ul style="list-style-type: none"> Students cover the fundamental units of life, focusing on the structure and function of eukaryotic (plant and animal) and prokaryotic (bacterial) cells, the importance of microscopy, cell transport processes (diffusion, osmosis, active transport), and cell division by mitosis. Students learn about stem cells and their use and their importance in medicine. Students learn how to calculate magnification and use and prepare microscope slides. | <p>B1 EOU HW (H/F): https://padlet.com/HACHScience/ks4-biology-zzee5t7h85z1/wish/AL83Wzlok0XQ0Pg</p> <p>Therapy, followed by B1 GCSEPOD</p> | <p>B1 Essential knowledge. Cell Biology Padlet Padlet Cell Biology</p> <p>Revision mats - https://padlet.com/HACHScience/ks4-biology-zzee5t7h85z1/wish/LNV1Q72bBYgJamq3 Use the links to complete padlet tasks to support learning and cover essential knowledge.</p> |
| | B2 Organisation and the digestive system | <ul style="list-style-type: none"> Students cover how the digestive system is an organ system that breaks down food into smaller molecules for absorption, focusing on the roles of organs like the mouth, stomach, small intestine, and accessory organs (liver, pancreas). Key concepts include mechanical digestion (chewing), chemical digestion (using enzymes like amylase, protease, and lipase), and the process of absorption of nutrients into the bloodstream via the small intestine's villi. | <p>B2 EOU HW (H/F): Exam questions Homework</p> <p>Therapy followed by B2 GCSEPOD</p> | <p>B2 Essential knowledge. Organisation and the digestive system Padlet link; Organisation Padlet</p> <p>Revision mats – B2 – link Organisation Revision mat</p> <p>Use the links to complete padlet tasks to support learning and cover essential knowledge.</p> <p>https://www.sciencejournalforkids.org/articles/how-do-groups-of-ants-make-shared-decisions/</p> <p>Use the above link to explore ants and their decisions from the sciencejournalfor kids.org</p> |

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| | <p>Metabolism</p> <p>Start Y11 content : Ecosystems</p> | <ul style="list-style-type: none"> • Students learn how exercise affects the body and respiration. • Students learn what is meant by metabolism and the factors that affect an organism's metabolic rate. • The importance of communities: Know what is meant by a stable community, know how organisms are adapted to the conditions in which they live, Know the relationship between communities and ecosystems. • Organisms in their environment: Students develop knowledge of the factors that affect communities (Abiotic and Biotic Factors) • Distribution and Abundance: Measure the Population Size of a common species in a habitat, estimate population sizes using random sampling with quadrats, know how to measure the distribution of living things in their natural environment, know how finding the mean, median and the mode can help you understand your data. • Competition in animals: learn why animals compete, learn the factors animals are competing for in a habitat, learn how organisms are adapted to the environment they live in, learn | | |
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| | | <p>what makes an animal a successful competitor.</p> <ul style="list-style-type: none">• Competition in plants: learn what plants compete for, learn how plants compete, develop knowledge of the adaptations that plants have to make them successful competitors. | | |
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