

# Biology

9<sup>th</sup> Grade Intl. [2 periods per week]

Ms. Sally-Anne Ganley, Ms. Athelia Edwards

## Course Description

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This course aims to introduce students to the youngest of sciences, Biology. In Grade 9, we will explore at a molecular and cellular level, understanding the basic concepts, to ensure that by the time they reach Grade 10, they will better understand the key systems to life.

The course focuses on the demonstration skills, as below, thereby enabling students to become critical thinkers and inquirers, who understand the value of developing scientific inquiry skills and their applications of knowledge, based on valid and reliable evidence in real life situations.

Reflection is a key component in the learning process, and will be evident throughout the program to facilitate evaluation and progress as a learner. Metacognition will allow students to distinguish between opinion, beliefs and scientific facts, and their interplay in the construction of knowledge.

Students will be introduced to the IB Command terms, ATL's and standards of practice.

The skills that will be cultivated in this course include:

Criterion A: Knowing and understanding: Students develop scientific knowledge (facts, ideas, concepts, processes, laws, principles, models and theories) and apply it to solve problems and express scientifically supported judgements.

Criterion B: Inquiring and designing: Students develop intellectual and practical skills through designing, analyzing and performing scientific investigations.

Criterion C: Processing and evaluating: Students collect, process and interpret qualitative and/or quantitative data, and explain conclusions that have been appropriately reached.

Criterion D: Reflecting on the impacts of science. Students evaluate the implications of scientific developments and their applications to a specific problem or issue. Varied scientific language is applied to demonstrate understanding. Students become aware of the importance of documenting the work of others when communicating in science.

## Timeline

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August to Mid September- Classification

Mid September to End of October-Cells and organization

End of October to Mid December- Movement in and out of cells

Mid January to End of March- Nutrition and Enzymes

End of March to End of May- Plant nutrition and Transport

Resource: Davis, A., & Deo, P. (2018). Biology: MYP by concept 4 & 5. London: Hodder Education, An Hachette UK Company.