Year 10 Science

Semester 1 Course Outline

This semester students will examine how DNA, the “blueprint of life”, influences the physiological makeup of organisms. They will describe how changes on a molecular level can have impacts on the individual, and species as a whole, through processes of evolution. Students will examine the relationships between physical forces including velocity and friction and predict the outcomes of actions based on Newton’s physical laws. They will design investigations and analyse their methods and data. Students will continue to develop their communication skills in science by evaluating the validity and reliability of a range of scientific assertions and by making evidence-based conclusions.

Learning Outcomes

Students will be assessed on the following Learning Outcomes:

- 10.424 Explains the concept of energy conservation and represents energy transfer and transformation within systems
- 10.425 Applies relationships between force, mass and acceleration to predict changes in the motion of objects
- 10.427 Evaluates the evidence for scientific theories that explain the origin of the universe and the diversity of life on Earth
- 10.428 Explains the processes that underpin heredity and evolution
- 10.429 Analyses how the models and theories used have developed over time and discusses the factors that prompted a review
- 10.432 Identifies alternative explanations for findings when analysing data, selecting evidence and developing and justifying conclusions, and explains any sources of uncertainty
- 10.433 Evaluates the validity and reliability of claims made in secondary sources with reference to currently held scientific views, the quality of the methodology and the evidence cited

Assessment Tasks

Students will be assessed on their participation and completion of classwork and assessment tasks.

Task	Week Due*
Formative Assessment - class work, quizzes, practical lessons etc.	Ongoing
Inquiry Skills - Investigation Task: Braking Distance	Week 8
Research task - Medical Use of Genetic Technology	Week 16

* Type of assessment may vary. **Due dates are an estimate only

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