**Year 10- Semester 1 Learning Intentions**

Indicate your relative confidence with the following:

1-not confident 2- Okay 3- Confident

*I can*

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| **Describe** the role of DNA in controlling characteristics of organisms  |  |
| **Explain** the role of Mitosis and Meiosis in the passing of genetic information |  |
| **Describe** patterns of inheritance-simple/dominant |  |
| **Predict and produce** simple genotypic and phenotypic ratios in various crosses |  |
| **Describe** mutation as changes in DNA or chromosomes and outline its factors |  |
| **Describe** the development of the double helix model for DNA |  |
| **Describe** replication, transcription and translation and their importance |  |
| **Explain** and compare the application of genetic technologies  |  |
| **Describe** the role of genetic testing for ethical purposes |  |
| **Explain** how sea ice, glaciers, fossils and sea levels are used as evidence of climate change |  |
| **Compare** the cause and effects or ‘greenhouse effect’ and the ‘enhanced greenhouse effect’ |  |
| **Discuss** the evidence that measurable changes in the Earth’s atmosphere are related to human activity |  |
| **Contrast** distance and displacement, speed and velocity and instantaneous speed |  |
| **Calculate** distance, time, speed, acceleration with their unit of measurement |  |
| **Infer** various graphs to calculate and conclude speed, distance and time |  |
| **Apply** Newton’s laws to predict how a balanced or unbalanced force affects the motion of an object |  |
| **Explain** the law of conservation of energy. |  |
| **Compare** energy changes in interactions such as car crashes, pendulum or lifting and dropping |  |
| **Clarify** that an energy transfer is never 100% efficient |  |