

Science Outline: Year 10

Term	Week	Unit of Work	Key Concepts	Class Tasks and Homework	Assessments
1	1 - 5	Getting into Genes	Relate the structure and function of living things to models, theories and laws. Identify that information is transferred as DNA on chromosomes when cells reproduce themselves	Activity: Constructing DNA Model Experiment: Extracting DNA	Written assessment Independent research task
	6 - 10	Chemical Compounds	Relate properties of elements, compounds and mixtures to scientific models, theories and laws. Identify a range of common compounds using their common names and chemical formulae.	Activity: Molecular Model Kits Experiment: Making a pH Indicator	Written assessment Independent Research Task
2	1 - 5	Radiation and the Big Bang	Relate some major features of the Universe to theories about the formation of the Universe. Identify examples of different types of radiation that make up the electromagnetic spectrum and some of their uses.	Demonstration: Geiger Counter PowerPoint Presentation: Evolution of Stars	
	6 - 10	Evolution	Discuss evidence that present-day organisms have evolved from organisms in the distant past. Relate natural selection to the theory of evolution.	Computer Simulation: Peppered Moths	
3	1 - 5	Chemical Reactions	Qualitatively describe reactants and products in various chemical reactions. Construct word equations from observations and written descriptions of a range of chemical reactions	Experiment: Chemical Reactions Worksheet: Word Equations	
	6 - 10	Motion	Apply models, theories and laws to situations involving energy, force and motion. Analyse qualitatively and quantitatively common situations involving motion in terms of Newton's Laws.	Experiment: Ticker Timers Worksheet: Newton's Laws calculations	Written assessment
4	1	Senior Studies	Design and implement solutions to solve a variety of scientific problems. Develop an understanding of the scientific method.	Experiment: Fair Tests Activity: Solving Scientific Problems	