Killara HIGH SCHOOL

Science Outline: Year 8

Term	Week	Unit of Work	Key Concepts	Class Tasks and Homework	Assessments
1	1 - 4	Plants	• Identify the materials required by multicellular organisms for the processes of respiration and photosynthesis • Describe the role of the root, stem and leaf in maintaining flowering plants as functioning organisms	Experiment: Conditions Needed for Germination Activity: Identifying Plant Structures Under the Microscope	
	5 - 7	Chemical Substances	• Classify elements as metals or non- metals according to their common characteristics • Identify internationally recognised symbols for common elements	Experiment: Gas Tests Experiment: Activity Series of Metals	
	8 - 10	Electricity	• Construct and draw circuits to show transfer of energy. • Describe ways in which objects acquire an electrostatic charge	Experiment: Constructing Simple Circuits Experiment: What Effect does Charged Objects Have on Each Other?	WRITTEN ASSESSMENT
2	1 - 2	Human Body – Digestion	• Describe the role of the digestive, system in maintaining humans as functioning organisms	Experiment: Food Tests Activity: Constructing a Model of the Digestive System	
	3 - 6	Chemical Reactions	• Distinguish between, elements, compounds and mixtures. • Identify when a chemical reaction is taking place by observing changes in temperature, the appearance of a new substance or the disappearance of an original substance	Activity: Molecular Model Kits Experiment: Chemical Reactions	

	7 - 10	More About Your Body	• Describe the role of the circulatory, excretory, skeletal and respiratory systems in maintaining humans as functioning organisms	Experiment: Dissection of a Heart Experiement: Dissection of a Kidney Demonstrati on: Pluck	
3	1 - 5	Hot Stuff	• Describe Expansion and contraction of materials in terms of a simple particle model explain the changes in pressure of gases in terms of increases or decreases in frequency of particle collisions.	Experiment: Radiation Experiment: Convection Experiment: Conduction Experiment: Expansion and Contraction	
	6 - 10	Ecology and Resources	• Identifies factors affecting survival of organisms in an ecosystem • Describe, using examples of food chains and food webs from Australian ecosystems, how producers, consumers and decomposers are related • Distinguish between natural and made resources	Activity: Constructing Food Chains and Food Webs Research: Natural and Made Resources	
4	1 →	Light and Sound	• Describe light as a form of energy Not requiring a medium for propagation • Identify waves as carriers of energy • Distinguish between the absorption, reflection and refraction of light and identify everyday situations where each occurs • Describe sound as a form of energy requiring a medium for propagation	Experiment: Light Ray Boxes Experiment: Tuning Forks Experiments: Sound Stations	WRITTEN ASSESSMENT