

Kurri Kurri High School – STEM Faculty – Scope & Sequence – Year 12 Investigating Science

1	2	3	4	5	6	7	8	9	10	11
Outcomes: INS12-1; INS12-2; INS12-3; INS12-4; INS12-5; INS12-7; IN										
Assessment: Depth Study, Week 7 Term 4										
						Depth Study 30%				
1	2	3	4	5	6	7	8	9	10	11
Module 6: Techno	logies	1	1	1	1	1	I	Module 7: Eact	or Fallacy (includin	g 1/1 hours de

	Module 6: Technologies	Module 7: Fact or Fallacy (including 14 hours depth
	Outcomes: INS12-1; INS12-2; INS12-3; INS12-4; INS12-5; INS12-6; INS12-7; INS12-13	study).
	Content Focus:	
	The rapid development of new technologies has enhanced industrial and agricultural processes, medical applications and communications. Students explore the	
	dynamic relationship between science and technology where the continuing advancement of science is dependent on the development of new tools and materials.	
	They also examine how advances in science inform the development of new technologies and so reflect the interdependence of science and technology.	
	Students consider experimental risks as they engage with the skills of Working Scientifically. They investigate the appropriateness of using a range of technologies in	
-	conducting practical investigations, including those that provide accurate measurement.	
Σ	Working Scientifically:	
R	In this module, students focus on developing hypotheses and questions and process appropriate qualitative and quantitative data. They demonstrate how science	
ш	drives demand for the development of further technologies. Students should be provided with opportunities to engage with all Working Scientifically skills throughout	
F	the course.	
	Inquiry questions:	
	How does technology enhance and/or limit scientific investigation?	
	How have developments in technology led to advances in scientific theories and laws that, in turn, drive the need for further developments in technology?	
	Working Scientifically Skills: Questioning and Predicting, Processing Data and Information, Analysing Data and Information, Problem Solving, Communicating	
	HSC Skills: answering HSC questions, multiple choice, short answer, long response	
	Assessment: Data Analysis week 5, Term 2.	
	Data Analysis	
	20%	

	1	2	3	4	5	6	7	8	9	10
TERM 2	Module 7: Fact Outcomes: INS Content Focus: The scientific proce misrepresentations to compensate for Students investigat media and investigat Working Scientifica Students focus on s fallacious claims. St Working Scientifica Communicating HSC Skills: answerin Assessment: Resea	or Fallacy (includ or Fallacy (includ L2-1; INS12-2; INS ss is the most power s. Science as a human human failings by qu e claims through con ate the benefits of pe ally: selecting, processing, sudents should be pro- ally Skills: Questionin ng HSC questions, mu rch Portfolio, Week S	ling 14 hours dep 512-3; INS12-4; IN ful tool available for endeavour is subject estioning evidence, r ducting practical and eer review. analysing and evaluat ovided with opportur g and Predicting, Pla ultiple choice, short a b.	bth study) NS12-5; INS12-6; I generating knowledg t to human failings, v re-testing ideas, replie d secondary-sourced ating primary and secon nities to engage with nning investigations, answer, long response	NS12-7; INS12-14 re about the world. It which can contribute cating results and en- investigations and ev condary data and info all Working Scientific Conducting investiga	4 to fallacies, misinter gaging with peer rev valuate these based of prmation sources. Str cally skills throughou ations, Processing Da	measurement to find pretations and, on o iew in order to evalu on scientific evidence udents communicate t the course. ta and Information, <i>i</i>	truth and highlight m ccasion, fraud. For thi ate research. e. They explore examp e scientific understanc Analysing Data and In	hisinterpretations and is reason, scientific pl oles of scientific claim ling and information formation, Problem S Research Portfolio 20%	d rocesses attempt as made in the about factual or Solving,

	1	2	3	4	5	6	7	8	9	10		
	EXAMINATIONS		Module 8: Science and Society									
			Outcomes: INS12-1; INS12-2; INS12-3; INS12-4; INS12-5; INS12-6; INS12-7; INS12-15									
			Content Focus:									
			Those who pursue the study of science have created processes, tools and products that challenge and influence society and some of its belief systems, ethics and									
			societal norms. In response, society debates and regulates science in order to prevent harmful developments and unacceptable outcomes, and to allow for new									
V 3			perspectives. Students explore the impacts of ethical, social, economic and political influences on science and its research									
R			Working Scientifically:									
Ш			students focus on analysing and evaluating primary and secondary data to solve problems and communicate scientific understanding about the position and									
		application of science in society. Students should be provided with opportunities to engage with all Working Scientifically skills throughout the course.										
			Working Scientifically Skills: Questioning and Predicting, Planning investigations, Conducting investigations, Processing Data and Information, Analysing Data and									
			Information, Problem Solving, Communicating									
			HSC Skills: answering HSC questions, multiple choice, short answer, long response									
			Assessment: Trial HSC Week 1-2, Term 3.									
	Trial	HSC										
	30%											