SAM Labs STEAM Standards Alignment - Australia - Digital Technologies													
Design and Tecl													
Grade 3	Lesson Name	Descriptor	Night Light	Music Box	Friction	Plant Growth	Smart Doorbell	Prime Factors	Animal Characteristics	Magnetic Forces	Survival of the Fittest	Animal Groups	Weather Board
Grade 5	Lesson Number		1	2	3	4	5	6	7	8	9	10	11
	Knowledge and Understanding												
lies	ACTDEK010	Recognise the role of people in design and technologies occupations and explore factors, including sustainability that impact on the design of products, services and environments to meet community needs											
	ACTDEK011	Investigate how forces and the properties of materials affect the behaviour of a product or system	>		~					~			V
	ACTDEK012	Investigate food and fibre production and food technologies used in modern and traditional societies											
	ACTDEK013	Investigate the suitability of materials, systems, components, tools and equipment for a range of purposes		~						~	~		
) Jolo	Processes and Production Skills												
Design and Technologies	ACTDEP014	Critique needs or opportunities for designing and explore and test a variety of materials, components, tools and equipment and the techniques needed to produce designed solutions											
	ACTDEP015	Generate, develop, and communicate design ideas and decisions using appropriate technical terms and graphical representation techniques	\triangleright	~				>					
	ACTDEP016	Select and use materials, components, tools, equipment and techniques and use safe work practices to make designed solutions	\searrow	~	~	~	~	\triangleright	~	~	>	>	>
	ACTDEP017	Evaluate design ideas, processes and solutions based on criteria for success developed with guidance and including care for the environment				>							
	ACTDEP018	Plan a sequence of production steps when making designed solutions individually and collaboratively	>	~	~	~	~	~	~	~	~	~	V
	Knowledge and Understanding												
Digital Technologies	ACTDIK007	Identify and explore a range of digital systems with peripheral devices for different purposes, and transmit different types of data		~									
	ACTDIK008	Recognise different types of data and explore how the same data can be represented in different ways											>
	Processes and Production Skills												
	ACTDIP009	Collect, access and present different types of data using simple software to create information and solve problems											
	ACTDIP010	Define simple problems, and describe and follow a sequence of steps and decisions (algorithms) needed to solve them	\searrow	V	V	V	V	N	V	V	V	V	\
	ACTDIP011	Implement simple digital solutions as visual programs with algorithms involving branching (decisions) and user input						Y					
	ACTDIP012	Explain how student solutions and existing information systems meet common personal, school or community needs	>										

	ACTDIP013	Plan, create and communicate ideas and information independently and with others, applying agreed ethical and social protocols											
	Skills ST2-1WS-S	questions, plans and conducts scientific investigations, collects and summarises data and communicates using scientific representations											
	ST2-2DP-T	selects and uses materials, tools and equipment to develop solutions for a need or opportunity	V	~	~	~	~	~	~	~	~	~	~
	ST2-3DP-T	defines problems, describes and follows algorithms to develop solutions	V	~	~	~	~	~	~	~	~	~	~
es	Knowledge and understanding												
hnolog	ST2-4LW-S	compares features and characteristics of living and non- living things									>	\checkmark	
NSW Science and Technologies	ST2-5LW-T	describes how agricultural processes are used to grow plants and raise animals for food, clothing and shelter				~							
cienc	ST2-6MW-S	describes how adding or removing heat causes a change of state											
NSW S	ST2-7MW-T	investigates the suitability of natural and processed materials for a range of purposes											
	ST2-8PW-ST	describes the characteristics and effects of common forms of energy, such as light and heat	~										
	ST2-9PW-ST	describes how contact and non- contact forces affect an object's motion			>					>			
	ST2-10ES-S	investigates regular changes caused by interactions between the Earth and the Sun, and changes to the Earth's surface											V
	ST2-11DI-T	describes how digital systems represent and transmit data		>									