- Australia - Digital Technolo Design and Tec															
Grade 4	Lesson Name	Descriptor	Energy in Motion	Guitar	Mars Rover	Rocks and Wind	Morse Code	Earthquake Simulator	Sensory Spider	Apostrophe	The Lighthouse	Prime Numbers	Morse Code Alert	Energy Transfer	Autonomous Driving
Grade 4	Lesson Number		1	2	3	4	5	6	7	8	9	10	11	12	13
Design and Technologies	Knowledge and Understanding  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			<b>Y</b>		<b>Y</b>								<b>Y</b>
	ACTDEK011	Investigate how forces and the properties of materials affect the behaviour of a product or system				~		~						>	
	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						<b>V</b>							
	Processes and Production Skills  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						<b>✓</b>							
	ACTDEP015	Generate, develop, and communicate design ideas and decisions using appropriate technical terms and graphical representation techniques													
	ACTDEP016	Select and use materials, components, tools, equipment and techniques and use safe work practices to make designed solutions	Y	<b>Y</b>	~	~		<b>V</b>	<b>Y</b>	<b>V</b>				\\	<b>V</b>
	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	~	~	~	~	~	~	~	~	~			>	~
	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					<b>V</b>		~				<b>V</b>	<b>&gt;</b>	<b>V</b>
	ACTDIK008	Recognise different types of data and explore how the same data can be represented in different ways					~						<b>V</b>		
	Processes and Production Skills	Collect, access and present different													
	ACTDIP009	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	<b>&gt;</b>	~	~	~	~	~	~	~	~	~	<b>&gt;</b>	>	<b>V</b>
	ACTDIP011	Implement simple digital solutions as visual programs with algorithms involving branching (decisions) and user input								<b>V</b>	<b>V</b>	~		>	~
	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													

NSW Science and Technologies

ST2-2DP-T	selects and uses materials, tools and equipment to develop solutions for a	<b>V</b>		<b>~</b>	<b>V</b>	~		~	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>		<b>V</b>
ST2-3DP-T	need or opportunity defines problems, describes and follows algorithms to develop	<b>✓</b>	✓	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	✓	✓	✓	✓	✓	✓	<b>V</b>
ST3-1WS-S	solutions plans and conducts scientific investigations to answer testable questions, and collects and summarises data to communicate conclusions			<b>✓</b>										
ST3-2DP-T	plans and uses materials, tools and equipment to develop solutions for a need or opportunity	V	~	$\checkmark$	~	<b>&gt;</b>		~	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	~	$\checkmark$
ST3-3DP-T	defines problems, and designs, modifies and follows algorithms to develop solutions	Y	~	<b>V</b>	~	<b>V</b>	<b>V</b>	~	<b>V</b>	~	$\checkmark$	~	~	<b>V</b>
Knowledge and understanding														
ST2-4LW-S	compares features and characteristics of living and non- living things													
ST2-5LW-T	describes how agricultural processes are used to grow plants and raise animals for food, clothing and shelter													
ST2-6MW-S	describes how adding or removing heat causes a change of state												~	
ST2-7MW-T	investigates the suitability of natural and processed materials for a range of purposes						$\checkmark$							
ST2-8PW-ST	describes the characteristics and effects of common forms of energy, such as light and heat							~					$\checkmark$	
ST2-9PW-ST	describes how contact and non- contact forces affect an object's motion	Y		<b>Y</b>	~		<b>V</b>	~						
ST2-10ES-S	investigates regular changes caused by interactions between the Earth and the Sun, and changes to the Earth's surface				<b>&gt;</b>		<b>&gt;</b>							
ST2-11DI-T	describes how digital systems represent and transmit data					~					~	~		~
ST3-4LW-S	examines how the environment affects the growth, survival and adaptation of living things													
ST3-5LW-T	explains how food and fibre are produced sustainably in managed environments for health and nutrition													
ST3-6MW-S	explains the effect of heat on the properties and behaviour of materials												~	
ST3-7MW-T	explains how the properties of materials determines their use for a range of purposes						~						~	
ST3-8PW-ST	explains how energy is transformed from one form to another	N	~		~		~						>	
ST3-9PW-ST	investigates the effects of increasing or decreasing the strength of a specific contact or non-contact force			<b>V</b>	~		<b>V</b>							
ST3-10ES-S	explains regular events in the solar system and geological events on the Earth's surface				~		<b>V</b>							
ST3-11DI-T	explains how digital systems represent data, connect together to form networks and transmit data													