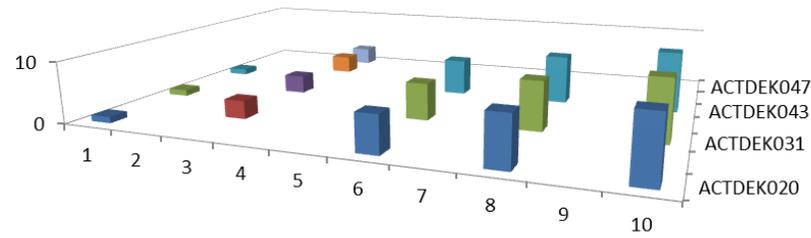




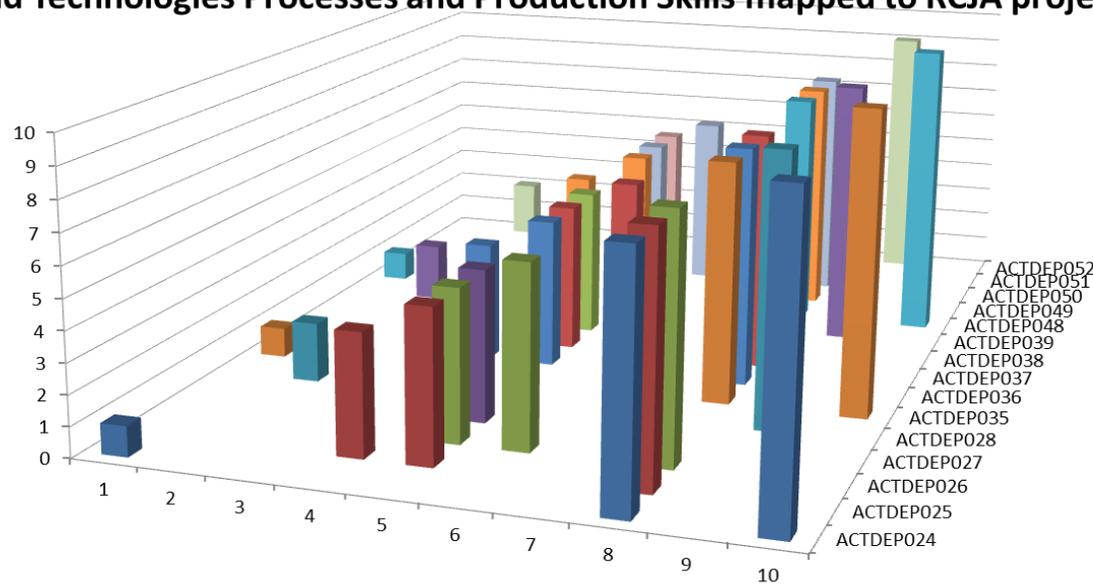
ACARA CODE	ACARA CONTENT DESCRIPTOR	RCJA1	RCJA2	RCJA3	RCJA4	RCJA5	RCJA6	RCJA7	RCJA8	RCJA9	RCJA10
ACTDIP017	ACTDIP017 - Define problems in terms of data and functional requirements, and identify features similar to previously solved problems	RCJA1		RCJA3							
ACTDIP027	ACTDIP027 - Define and decompose real-world problems taking into account functional requirements and economic, environmental, social, technical and usability constraints	RCJA1		RCJA3							
ACTDIP038	ACTDIP038 - Precisely define and decompose real-world problems, taking into account functional and non-functional requirements and including interviewing stakeholders to identify needs	RCJA1		RCJA3							
ACTDEK020	ACTDEK020 - Investigate how forces or electrical energy can control movement, sound or light in a designed product of system	RCJA1					RCJA6		RCJA8		RCJA10
ACTDEK031	ACTDEK031 - Analyse how motion, force and energy are used to manipulate and control electromechanical systems when designing simple, engineered solutions	RCJA1					RCJA6		RCJA8		RCJA10
ACTDEK043	ACTDEK043 - Investigate and make judgments on how the characteristics and properties of materials are combined with force, motion and energy to create engineered solutions	RCJA1					RCJA6		RCJA8		RCJA10
ACTDEP024	ACTDEP024 - Critique needs or opportunities for designing, and investigate materials, components, tools, equipment and processes to achieve intended designed solutions	RCJA1							RCJA8		RCJA10
ACTDEP035	ACTDEP035 - Critique needs or opportunities for designing and investigate, analyse and select from a range of materials, components, tools, equipment and processes to develop design ideas	RCJA1							RCJA8		RCJA10
ACTDEP048	ACTDEP048 - Increasingly sophisticated range of materials, systems, components, tools and equipment to develop design ideas	RCJA1							RCJA8		RCJA10
ACTDEP028	ACTDEP028 - Develop project plans that include consideration of resources when making designed solutions individually and collaboratively		RCJA2							RCJA9	
ACTDEP039	ACTDEP039 - Use project management processes when working individually and collaboratively to coordinate production of designed solutions		RCJA2							RCJA9	
ACTDEP052	ACTDEP052 - Develop project plans using digital technologies to plan and manage projects individually and collaboratively taking into consideration time, cost, risk and production processes		RCJA2							RCJA9	
ACTDIP022	ACTDIP022 - Manage the creation and communication of ideas and information including online collaborative projects, applying agreed ethical, social and technical protocols		RCJA2							RCJA9	
ACTDIP033	ACTDIP033 - Plan and manage projects, including tasks, time and other resources required, considering safety and sustainability		RCJA2							RCJA9	
ACTDIP044	ACTDIP044 - Plan and manage projects using an iterative and collaborative approach, identifying risks and considering safety and sustainability		RCJA2							RCJA9	
ACTDIK014	ACTDIK014 - Investigate the main components of common digital systems, their basic functions and interactions, and how such digital systems may connect together to form networks to transmit data			RCJA3	RCJA4			RCJA7			
ACTDIK023	ACTDIK023 - Investigate how data are transmitted and secured in wired, wireless and mobile networks, and how the specifications of hardware components impact on network activities			RCJA3	RCJA4			RCJA7			
ACTDIK034	ACTDIK034 - Investigate the role of hardware and software in managing, controlling and securing the movement of and access to data in networked digital systems			RCJA3	RCJA4			RCJA7			
ACTDEK023	ACTDEK023 - Investigate characteristics and properties of a range of materials, systems, components, tools and equipment and evaluate the impact of their use			RCJA3							
ACTDEK034	ACTDEK034 - Analyse ways to produce designed solutions through selecting and combining characteristics and properties of materials, systems, components, tools and equipment			RCJA3							
ACTDEK046	ACTDEK046 - Investigate and make judgments on how the characteristics and properties of materials, systems, components, tools and equipment can be combined to create designed solutions			RCJA3							
ACTDEK047	ACTDEK047 - Investigate and make judgments, within a range of technologies specialisations, on how technologies can be combined to create designed solutions			RCJA3							
ACTDEP025	ACTDEP025 - Generate, develop, communicate and document design ideas and processes for audiences using appropriate technical terms and graphical representation techniques				RCJA4	RCJA5			RCJA8		
ACTDEP036	ACTDEP036 - Generate, develop, test and communicate design ideas, plans and processes for various audiences using appropriate technical terms and technologies including graphical representation techniques				RCJA4	RCJA5			RCJA8		
ACTDEP049	ACTDEP049 - Apply design thinking, creativity, innovation and enterprise skills to develop, modify and communicate design ideas of increasing sophistication				RCJA4	RCJA5			RCJA8		
ACTDIP019	ACTDIP019 - Design, modify and follow simple algorithms represented diagrammatically and in English involving sequences of steps, branching, and iteration (repetition)				RCJA4	RCJA5					
ACTDIP020	ACTDIP020 - Implement digital solutions as simple visual programs involving branching, iteration (repetition), and user input				RCJA4	RCJA5					
ACTDIP029	ACTDIP029 - Design algorithms represented diagrammatically and in English, and trace algorithms to predict output for a given input and to identify errors				RCJA4	RCJA5					
ACTDIP030	ACTDIP030 - Implement and modify programs with user interfaces involving branching, iteration and functions in a general-purpose programming language				RCJA4	RCJA5					
ACTDIP040	ACTDIP040 - Design algorithms represented diagrammatically and in structured English and validate algorithms and programs through tracing and test cases				RCJA4	RCJA5					
ACTDIP041	ACTDIP041 - Implement modular programs, applying selected algorithms and data structures including using an object-oriented programming language				RCJA4	RCJA5					
ACTDEP026	ACTDEP026 - Apply safe procedures when using a variety of materials, components, tools, equipment and techniques to make designed solutions					RCJA5	RCJA6		RCJA8		
ACTDEP037	ACTDEP037 - Effectively and safely use a broad range of materials, components, tools, equipment and techniques to make designed solutions					RCJA5	RCJA6		RCJA8		
ACTDEP050	ACTDEP050 - Work flexibly to safely test, select, justify and use appropriate technologies and processes to make designed solutions					RCJA5	RCJA6		RCJA8		
ACTDIP021	ACTDIP021 - Explain how developed solutions and existing information systems are sustainable and meet local community needs, considering opportunities and consequences for future applications					RCJA5		RCJA7			RCJA10
ACTDIP031	ACTDIP031 - Evaluate how well developed solutions and existing information systems meet needs, are innovative and take account of future risks and sustainability					RCJA5		RCJA7			RCJA10
ACTDIP042	ACTDIP042 - Critically evaluate how well developed solutions and existing information systems and policies take account of future risks and sustainability and provide opportunities for innovation and enterprise					RCJA5		RCJA7			RCJA10
ACTDEP027	ACTDEP027 - Negotiate criteria for success that include consideration of sustainability to evaluate design ideas, processes and solutions					RCJA5					
ACTDEP038	ACTDEP038 - Independently develop criteria for success to assess design ideas, processes and solutions and their sustainability					RCJA5					
ACTDEP051	ACTDEP051 - Evaluate design ideas, processes and solutions against comprehensive criteria for success recognising the need for sustainability					RCJA5					

### Design and Technologies Knowledge and Understanding mapped to RCJA project activities



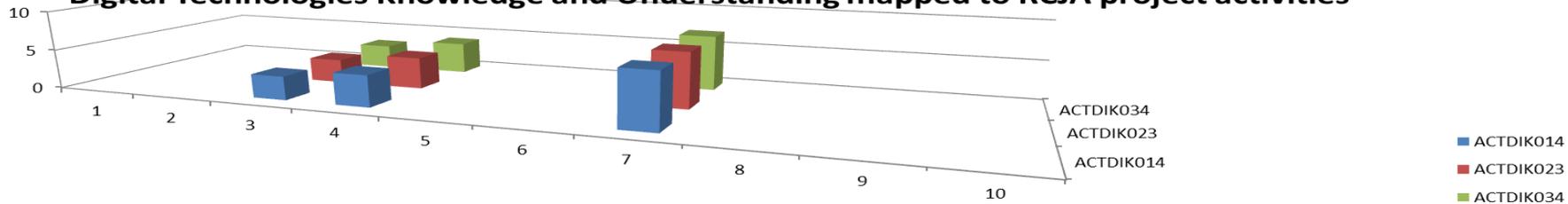
- ACTDEK020
- ACTDEK023
- ACTDEK031
- ACTDEK034
- ACTDEK043
- ACTDEK046

### Design and Technologies Processes and Production Skills mapped to RCJA project activities



- ACTDEP024
- ACTDEP025
- ACTDEP026
- ACTDEP027
- ACTDEP028
- ACTDEP035
- ACTDEP036
- ACTDEP037
- ACTDEP038
- ACTDEP039
- ACTDEP048
- ACTDEP049
- ACTDEP050
- ACTDEP051

### Digital Technologies Knowledge and Understanding mapped to RCJA project activities



### Australian Curriculum Technologies Knowledge and Understanding Processes and Production Skills mapped to RCJA project activities

