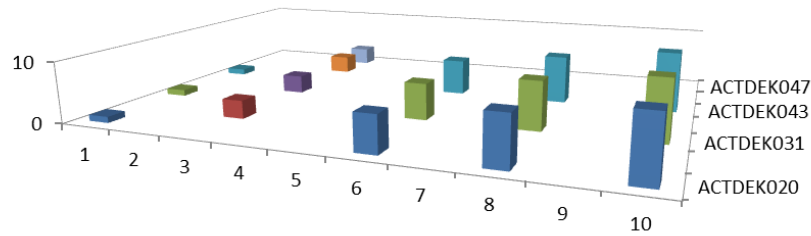


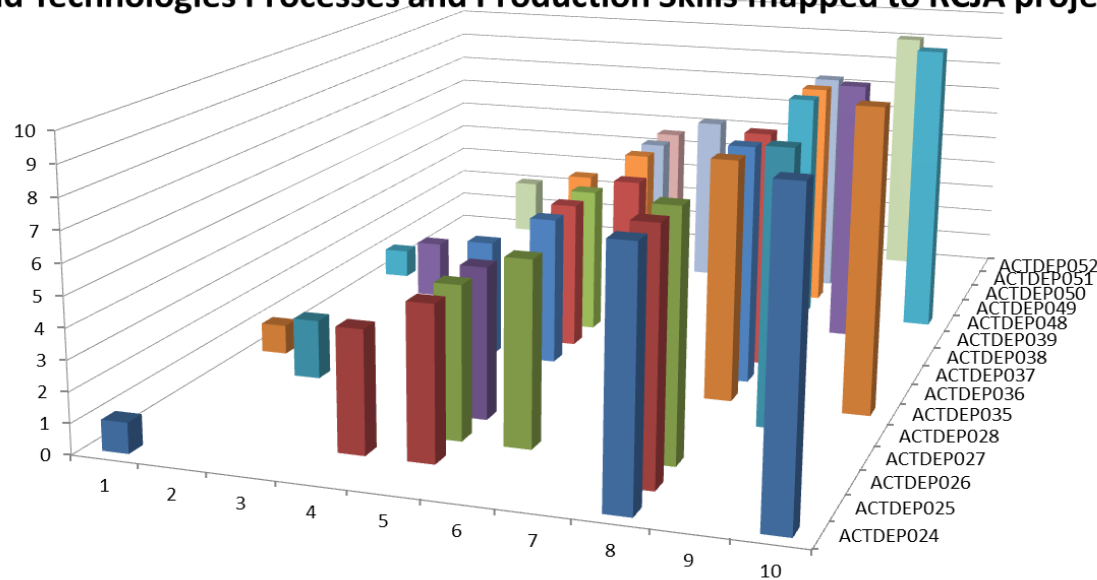
| ACARA CODE | ACARA CONTENT DESCRIPTOR | RCJA1 | RCJA2 | RCJA3 | RCJA4 | RCJA5 | RCJA6 | RCJA7 | RCJA8 | RCJA9 | RCJA10 |
|------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| ACTDIP017 | ACTDIP017 - Define problems in terms of data and functional requirements, 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



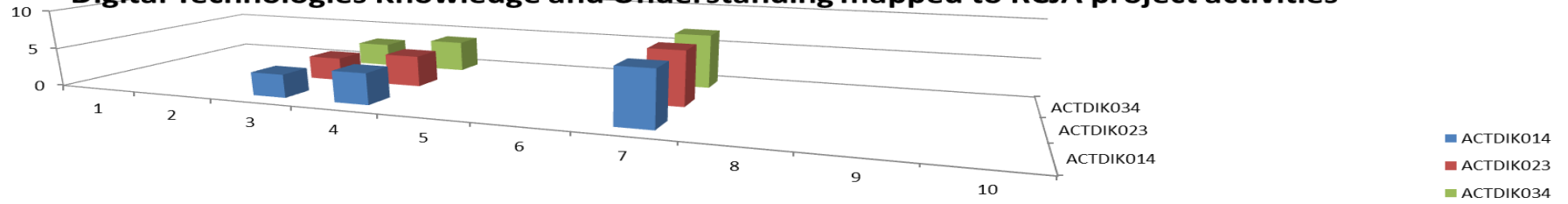
- ACTDEK020
- ACTDEK023
- ACTDEK031
- ACTDEK034
- ACTDEK043
- ACTDEK046

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

