Section	ACARA Content Descriptors		Completed?
RCJA 1 - Project Overview / What are your initial thoughts to solving the problem?	**Digital Technology**		
	ACTDIP017 - Define problems in terms of data and functional requirements, and identify features similar to previously solved problems		
	ACTDIP027 - Define and decompose real-world problems taking into account functional requirements and economic, environmental, social, technical and usability constraints		
	ACTDIK038 - Precisely define and decompose real-world problems, taking into account functional and non-functional requirements and including interviewing stakeholders to identify needs		
	Design and Technologies		
	ACTDEK020 - Investigate how forces or electrical energy can control movement, sound or light in a designed product of system		
	ACTDEP024 - Critique needs or opportunities for designing and investigate materials, components, tools, equipment and processes to achieve intended designed solutions		
	ACTDEK031 - Analyse how motion, force and energy are used to manipulate and control electromechanical systems when designing simple, engineered solutions		
	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		
	ACTDEK043 - Investigate and make judgments on how the characteristics and properties of materials are combined with force, motion and energy to create engineered solutions		
	ACTDEP048 - Critique needs or opportunities to develop design briefs and investigate and select an increasingly sophisticated range of materials, systems, components, tools and equipment to develop design ideas		
RCJA 2 - What roles do you need on your team?	**Digital Technology**		
	ACTDIP022 - Manage the creation and communication of ideas and information including online collaborative projects, applying agreed ethical, social and technical protocols		
	ACTDIP033 - Plan and manage projects, including tasks, time and other resources required, considering safety and sustainability		
	ACTDIK044 - Plan and manage projects using an iterative and collaborative approach, identifying risks and considering safety and sustainability		
	Design and Technologies		
	ACTDEP028 - Develop project plans that include consideration of resources when making designed solutions individually and collaboratively		
	ACTDEP039 - Use project management processes individually and collaboratively to coordinate production of designed solutions		
	ACTDEP052 - Develop project plans using digital technologies to plan and manage projects individually and collaboratively, taking into consideration time, cost, risk and production processes		
RCJA 3 - What platform(s) are you using?	**Digital Technology**		
	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		

	ACTDIP017 - Define problems in terms of data and functional requirements, and identify features similar to previously solved problems	
	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	
	ACTDIP027 - Define and decompose real-world problems taking into account functional requirements and economic, environmental, social, technical and usability constraints	
	ACTDIK034 - Investigate the role of hardware and software in managing, controlling and securing the movement of and access to data in networked digital systems	
	ACTDIK038 - Precisely define and decompose real-world problems, taking into account functional and non-functional requirements and including interviewing stakeholders to identify needs	
	Design and Technologies	
	ACTDEK023 - Investigate characteristics and properties of a range of materials, systems, components, tools and equipment and evaluate the impact of their use	
	ACTDEK034 - Analyse ways to produce designed solutions through selecting and combining materials, systems, components, tools and equipment	
	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	
	ACTDEK047 - Investigate and make judgments, within a range of technologies specialisations, on how technologies can be combined to create designed solutions	
RCJA 4 - 1st Iteration Requirements	**Digital Technology**	
	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	
	ACTDIP019 - Design, modify and follow simple algorithms represented diagrammatically and in English involving sequences of steps, branching, and iteration (repetition)	
	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	
	ACTDIP029 - Design algorithms represented diagrammatically and in English; and trace algorithms to predict output for a given input and to identify errors	
	ACTDIK034 - Investigate the role of hardware and software in managing, controlling and securing the movement of and access to data in networked digital systems	
	ACTDIK040 - Design algorithms represented diagrammatically and in structured English and validate algorithms and programs through tracing and test cases	
	Design and Technologies	
	ACTDEP025 - Generate, develop and communicate design ideas and processes for audiences using appropriate technical terms and graphical representation techniques	
	ACTDEK031 - Analyse how motion, force and energy, are used to manipulate and control electromechanical systems when designing simple, engineered solutions	
	ACTDEP036 - Generate, develop, test, and communicate design ideas, plans and processes for various audiences using appropriate technical terms and technologies including graphical representation techniques	
	ACTDEP049 - Apply design thinking, creativity, innovation and enterprise skills to develop, modify and communicate design ideas of increasing sophistication	
RCJA 5 - 1st Iteration / 1st Design Cycle?	**Digital Technologies**	

	ACTDIP019 - Design, modify and follow simple algorithms represented diagrammatically and in English involving sequences of steps, branching, and iteration (repetition)	
	ACTDIP020 - Implement digital solutions as simple visual programs involving branching, iteration (repetition), and user input	
	ACTDIP021 - Explain how developed solutions and existing information systems are sustainable and meet local community needs, considering opportunities and consequences for future applications	
	ACTDIP029 - Design algorithms represented diagrammatically and in English, and trace algorithms to predict output for a given input and to identify errors	
	ACTDIP030 - Implement and modify programs with user interfaces involving branching, iteration and functions in a general-purpose programming language	
	ACTDIP031 - Evaluate how well developed solutions and existing information systems meet needs, are innovative and take account of future risks and sustainability	
	ACTDIK040 - Design algorithms represented diagrammatically and in structured English and validate algorithms and programs through tracing and test cases	
	ACTDIK041 - Implement modular programs, applying selected algorithms and data structures including using an object-oriented programming language	
	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	
	Design and Technologies	
	ACTDEP025 - Generate, develop and communicate design ideas and processes for audiences using appropriate technical terms and graphical representation techniques	
	ACTDEP026 - Apply safe procedures when using a variety of materials, components, tools, equipment and techniques to make designed solutions	
	ACTDEP027 - Negotiate criteria for success that include consideration of sustainability to evaluate design ideas, processes and solutions	
	ACTDEP036 - Generate, develop, test, and communicate design ideas, plans and processes for various audiences using appropriate technical terms and technologies including graphical representation techniques	
	ACTDEP037 - Effectively and safely use a broad range of materials, components, tools, equipment and techniques to make designed solutions	
	ACTDEP038 - Independently develop criteria for success to assess design ideas, processes and solutions and their sustainability	
	ACTDEP049 - Apply design thinking, creativity, innovation and enterprise skills to develop, modify and communicate design ideas of increasing sophistication	
	ACTDEP050 - Work flexibly to safely test, select, justify and use appropriate technologies and processes to make designed solutions	
	ACTDEP051 - Evaluate design ideas, processes and solutions against comprehensive criteria for success recognising the need for sustainability	
RCJA 6 - Construction	**Digital Technology**	
	ACTDIP020 - Implement digital solutions as simple visual programs involving branching, iteration (repetition), and user input	
	ACTDIP030 - Implement and modify programs with user interfaces involving branching, iteration and functions in a generalpurpose programming language	
	ACTDIK041 - Implement modular programs, applying selected algorithms and data structures including using an objectoriented programming language	

	Design and Technologies	
	ACTDEK020 - Investigate how forces or electrical energy can control movement, sound or light in a designed product of system	
	ACTDEP026 - Apply safe procedures when using a variety of materials, components, tools, equipment and techniques to make designed solutions	
	ACTDEK031 - Analyse how motion, force and energy are used to manipulate and control electromechanical systems when designing simple, engineered solutions	
	ACTDEP037 - Effectively and safely use a broad range of materials, components, tools, equipment and techniques to make designed solutions	
	ACTDEK043 - Investigate and make judgments on how the characteristics and properties of materials are combined with force, motion and energy to create engineered solutions	
	ACTDEP050 - Work flexibly to safely test, select, justify and use appropriate technologies and processes to make designed solutions	
RCJA 7 - Software	**Digital Technologies**	
	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	
	ACTDIP019 - Design, modify and follow simple algorithms represented diagrammatically and in English involving sequences of steps, branching, and iteration (repetition)	
	ACTDIP020 - Implement digital solutions as simple visual programs involving branching, iteration (repetition), and user input	
	ACTDIP021 - Explain how developed solutions and existing information systems are sustainable and meet local community needs, considering opportunities and consequences for future applications	
	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	
	ACTDIP029 - Design algorithms represented diagrammatically and in English; and trace algorithms to predict output for a given input and to identify errors	
	ACTDIP030 - Implement and modify programs with user interfaces involving branching, iteration and functions in a general-purpose programming language	
	ACTDIP031 - Evaluate how well developed solutions and existing information systems meet needs, are innovative, and take account of future risks and sustainability	
	ACTDIK034 - Investigate the role of hardware and software in managing, controlling and securing the movement of and access to data in networked digital systems	
	ACTDIK040 - Design algorithms represented diagrammatically and in structured English and validate algorithms and programs through tracing and test cases	
	ACTDIK041 - Implement modular programs, applying selected algorithms and data structures including using an object-oriented programming language	
	ACTDIK042 - 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	
	Design and Technologies	
	ACTDEP036 - Generate, develop, test, and communicate design ideas, plans and processes for various audiences using appropriate technical terms and technologies including graphical representation techniques	
	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	

	ACTDEK047 - Investigate and make judgments, within a range of technologies specialisations, on how technologies can be combined	
	ACTDEP048 - Critique needs or opportunities to develop design briefs and investigate and select an increasingly sophisticated range of materials, systems, components, tools and equipment to develop design	
RCJA 8 - Electronics (if applicable)	**Design and Technologies**	
	ACTDEK020 - Investigate how forces or electrical energy can control movement, sound or light in a designed product of system	
	ACTDEP024 - Critique needs or opportunities for designing and investigate materials, components, tools, equipment and processes to achieve intended designed solutions	
	ACTDEP025 - Generate, develop and communicate design ideas and processes for audiences using appropriate technical terms and graphical representation techniques	
	ACTDEP026 - Apply safe procedures when using a variety of materials, components, tools, equipment and techniques to make designed solutions	
	ACTDEK031 - Analyse how motion, force and energy are used to manipulate and control electromechanical systems when designing simple, engineered solutions	
	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	
	ACTDEP036 - Generate, develop, test, and communicate design ideas, plans and processes for various audiences using appropriate technical terms and technologies including graphical representation techniques	
	ACTDEP037 - Effectively and safely use a broad range of materials, components, tools, equipment and techniques to make designed solutions	
	ACTDEK043 - Investigate and make judgments on how the characteristics and properties of materials are combined with force, motion and energy to create engineered solutions	
	ACTDEP048 - Critique needs or opportunities to develop design briefs and investigate and select an increasingly sophisticated range of materials, systems, components, tools and equipment to develop design ideas	
	ACTDEP049 - Apply design thinking, creativity, innovation and enterprise skills to develop, modify and communicate design ideas of increasing sophistication	
	ACTDEP050 - Work flexibly to safely test, select, justify and use appropriate technologies and processes to make designed solutions	
RCJA 9 - Community outreach - show it off!	**Digital Technologies**	
	ACTDIP022 - Manage the creation and communication of ideas and information including online collaborative projects, applying agreed ethical, social and technical protocols	
	ACTDIP033 - Plan and manage projects, including tasks, time and other resources required, considering safety and sustainability	
	ACTDIK044 - Plan and manage projects using an iterative and collaborative approach, identifying risks and considering safety and sustainability	
	Design and Technologies	
	ACTDEP028 - Develop project plans that include consideration of resources when making designed solutions individually and collaboratively	
	ACTDEP039 - Use project management processes individually and collaboratively to coordinate production of designed solutions	

	ACTDEP052 - Develop project plans using digital technologies to plan and manage projects individually and collaboratively, taking into consideration time, cost, risk and production processes	
RCJA 10 - What parts of the project were the hardest?	**Digital Technologies**	
	ACTDIP021 - Explain how developed solutions and existing information systems are sustainable and meet local community needs, considering opportunities and consequences for future applications	
	ACTDIP031 - Evaluate how well developed solutions and existing information systems meet needs, are innovative, and take account of future risks and sustainability	
	ACTDIK042 - 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	
	Design and Technologies	
	ACTDEK020 - Investigate how forces or electrical energy can control movement, sound or light in a designed product of system	
	ACTDEP024 - Critique needs or opportunities for designing and investigate materials, components, tools, equipment and processes to achieve intended designed solutions	
	ACTDEK031 - Analyse how motion, force and energy are used to manipulate and control electromechanical systems when designing simple, engineered solutions	
	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	
	ACTDEK043 - Investigate and make judgments on how the characteristics and properties of materials are combined with force, motion and energy to create engineered solutions	
	ACTDEP048 - Critique needs or opportunities to develop design briefs and investigate and select an increasingly sophisticated range of materials, systems, components, tools and equipment to develop design ideas	