

# MAKE A MINECRAFT ULTIMATE SCHOOL

Levels 5-6



This unit of work was created in

collaboration with the Digital Technologies specialist teacher from Ipswich Girls Grammar, Queensland

## Unit Overview

This unit of work focuses on the

Design and creating the 'ultimate school for students'

This project will focus on collaboration and has scope to include coding in Minecraft

Students will research how to create different buildings in Minecraft and different school buildings. They will be provided with a list of 'must haves' to include in their design. A portion of their will include indigenous perspective. Students will provide with examples of ways to incorporate local

## Australian Curriculum Alignment

Other curriculum areas can be targeted and assessed within this unit.

Other areas of interest may include:

- Design and Technologies
- Critical and Creative Thinking
- Geography

Further investigation into these areas is required to ensure they align with the following activities. Activities may need to be modified to ensure content descriptions and achievement standards are met. The following sessions have been created using the Australian Curriculum: Digital Technologies Curriculum. Tasks may need to be modified to ensure state Digital Technologies Curriculum content descriptions and achievement standards are met. ACS has support and documents to help align this unit to other Digital Technology Curricula.

## Session

'Session' has been used to define the order of tasks to complete the unit. It does not define a set time required to complete the task. Time allocated to complete a session is the teacher's discretion. This allows for flexibility for the teacher to drive the duration of the task and make modifications if necessary. Sessions can be merged into one set period or sessions may run over multiple periods.

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## Key Preparation

Minecraft is the chosen platform to complete this unit of work. The right platform will depend on the school's resources and access to digital technology. Investigation into other platforms may be required if Minecraft is not suitable. It is encouraged to explore and understand basic functions within the chosen digital platform. Full knowledge and upskilling is not required. By providing skill development for the students (see Session 3) students will familiarise themselves with the capabilities and functions within the Minecraft.

## Coding In Minecraft with Prodigy Learning

Go here for more information: [https://www.youtube.com/watch?v=83I\\_FLDhwyw](https://www.youtube.com/watch?v=83I_FLDhwyw)

## ACS Resources

Resources have been created to help teachers and students unpack and understand topics found within the Digital Technologies Curriculum. These give brief explanations of the topic and the expectations to teach the topic at the curriculum year level. It is intended the information is presented in a way that will set the foundation for further research.

## ACS ICT Educators Community

ACS has resources to support the teaching of the Digital Technologies Curriculum from Foundation to Year 10. Access our community and resources by joining for free via: <https://www.acs.org.au/ict-educators.html>. Contact the ICT Educators via our email: [icteducators.community@acs.org.au](mailto:icteducators.community@acs.org.au).

## Key Understandings

Students will:

- Evaluate how current organisations (such as Block by Block) use Minecraft to support community designs and
- Work collaboratively to design a new school
- Collaborative effectively in the Minecraft collaborative space
- Program components of the Minecraft school.

## Key Questions

- How is Minecraft used to help communities around the world?
- How will you work collaboratively and what protocols will you follow?
- How can you use Minecraft to redesign the ultimate school? How will you incorporate an indigenous perspective?
- How can you incorporate code into your design to enhance any features to automatically move/change?

## Key Vocabulary

Protocols, ethical protocols, technical protocols, social protocols, design thinking, design solution, algorithms, iteration, branching, user input, visual programming

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Session Number	Session Topic Focus	Learning Intention and Success Criteria	Introduction/Teacher Instruction	Whole Class Activity
1.	Collaboration	<p><b>Learning Intention</b> Students will generate and adhere to protocols when working in online spaces.</p> <p><b>Success Criteria</b> I can create a guideline that I will abide by when using digital technology to working Minecraft and creating the school.</p>	Introduce students Minecraft and demonstrate how they will be working in the space collaboratively. Discuss the right and wrong way to use this space. Explain the technology concepts ethical, technical and social protocols.	<p>Students form groups to work on creating the ultimate school. Each group creates a guideline to include social, ethical and technical protocols to abide by during their time working on their project and working with others in the class.</p> <p>Students will use these platforms to complete any group work activities.</p>
<b>Session Resources</b>	<p><b>Student Resources</b></p> <ul style="list-style-type: none"> <li>• <a href="#">ACS Student Resource: Online Protocols</a></li> </ul>		<p><b>Teacher Resources</b></p> <ul style="list-style-type: none"> <li>• <a href="#">ACS Teacher Resource: Online Collaboration</a></li> </ul>	
2.	Exploring and evaluating technology	<p><b>Learning Intention</b> Students will explain how the non-profit company, Block By Block, uses Minecraft to redesign underprivileged communities.</p> <p><b>Success Criteria</b> I can explain how Minecraft is used to help design and create communities.</p>	Discuss with students how they use Minecraft. Discuss features and uses of Minecraft. Watch with students the introduction video to Block By Block. Discuss how Minecraft has been used to transform communities around the world.	Students are given time to explore the different projects within Block By Block website. Each project contains an overview and the Minecraft project to explore. Students will evaluate the purpose of the project and the Minecraft build
<b>Session Resources</b>	<p><b>Student Resources</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Block By Block</a></li> <li>• Block By Block introduction video</li> </ul>		<p><b>Teacher Resources</b></p> <ul style="list-style-type: none"> <li>• <a href="#">ACS Teacher Resource: Evaluating Digital Solutions</a></li> <li>• Block By Block Project Profile (located at the end of the unit)</li> </ul>	

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Session Number	Session Topic Focus	Learning Intention and Success Criteria	Introduction/Teacher Instruction	Whole Class Activity
3.	Design a solution	<p><b>Learning Intention</b> Students will analyse multiple current Minecraft projects available via Block By Block.</p> <p><b>Success Criteria</b> I can analyse other Minecraft worlds to help me build my ultimate school.</p>	As a group walk through together the project model of the San Cristobal project and focus on the garden. Discuss with students the model and identify what key features they could use to create the ultimate school garden. Go through the design evaluation questions with the students.	Student will spend time evaluating 3 to 4 different words in the Block by Block Sketch Fab project models page. They will look through the different worlds, take screen shots of ideas they like and use the ideas as inspiration for their ultimate schools. Students complete this task in a collaboratively online environment. Students can use an online presentation tool, this will depend on the availability of platforms at each school.
<b>Session Resources</b>	<p><b>Student Resources</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Block by Block Sketchfab Project Models</a></li> <li>• Questions to support design evaluation:                             <ul style="list-style-type: none"> <li>○ Which project are you analysing?</li> <li>○ What part of the design did you like (take a screen shot)?</li> <li>○ How and where can you include this in your design of the ultimate school?</li> </ul> </li> </ul>		<p><b>Teacher Resource</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Minecraft San Cristóbal Project Model</a></li> </ul>	
4.	Design a solution	<p><b>Learning Intention</b> Students will analyse multiple current Minecraft projects available via Block By Block.</p> <p><b>Success Criteria</b> I can plan my ultimate school through drawing and designing</p>	Report back to the class the different worlds they investigated and which areas they will use in their plan. Discuss with the students the 'must haves' in their school and ensure students include the must haves in their design.	Students will take the evaluations from the previous session and commence creating their ultimate school. They will use the brief of 'must haves' to ensure they are included in their plans. This activity can either be completed in an online environment (e.g. Google Jamboard) or using pen and paper.
<b>Session Resources</b>	<p><b>Student Resources</b></p> <ul style="list-style-type: none"> <li>• If applicable, grid paper</li> </ul>		<p><b>Teacher Resources</b></p> <ul style="list-style-type: none"> <li>• Digital drawing tool (if applicable to session) such as Google Jamboard, Canva, etc.</li> </ul>	

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Session Number	Session Topic Focus	Learning Intention and Success Criteria	Introduction/Teacher Instruction	Whole Class Activity
5.	Introduction to Minecraft	<p><b>Learning Intention</b> Students will familiarise themselves with the Minecraft platform.</p> <p><b>Success Criteria</b> I can complete a range of tasks so I am familiar with the functions within Minecraft.</p>	Brainstorm different projects and challenges that can be completed in Minecraft.	Students will create a list of skills and mini projects to complete. They will familiarise themselves with Minecraft by completing a range of tasks. Students will share with each other the different functions and tasks they have completed. Create a 'Hot Minecraft Tip Poster' to be displayed in the classroom for future reference.
<b>Student Resources</b>		<b>Teacher Resources</b>		
<ul style="list-style-type: none"> <li>Minecraft challenges (located at the end of the unit sessions)</li> </ul>		<ul style="list-style-type: none"> <li><a href="https://meedownloads.blob.core.windows.net/learning-experience/Build%20Challenges%20Collection.pdf">https://meedownloads.blob.core.windows.net/learning-experience/Build%20Challenges%20Collection.pdf</a></li> </ul>		
6.	Creating a digital solution	<p><b>Learning Intention</b> Students will use Minecraft to create an ultimate school design.</p> <p><b>Success Criteria</b> I can use Minecraft to create a digital design of an ultimate school.</p>	<p>Students will share their drawing and design with their peers. They are given time to change, adapt or add any new features.</p> <p>Discuss with students the best process to start building their school.</p>	<p>Students will commence creating their ultimate school in Minecraft. They will commence by building the foundations and outline of each building to ensure their space have been correctly planned. They will use their drawings and plans to guide their digital design.</p> <p>As they progress through their design, students will take screen shots of their work. They will use the progress screen shots to compare with their annotated drawing to their digital design.</p>
<b>Session Resources</b>	<b>Student Resources</b>		<b>Teacher Resources</b>	
	<ul style="list-style-type: none"> <li></li> </ul>		<ul style="list-style-type: none"> <li><a href="https://www.wikihow.com/Build-a-Minecraft-Village">https://www.wikihow.com/Build-a-Minecraft-Village</a></li> </ul>	

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Session Number	Session Topic Focus	Learning Intention and Success Criteria	Introduction/Teacher Instruction	Whole Class Activity
7.	Creating a flowchart	<p><b>Learning Intention</b> Students will create a flowchart to show how programming can be incorporated into their design.</p> <p><b>Success Criteria</b> I can create a diagram to show how explicit instructions (algorithms) can be used in my community design.</p>	<p>Students share their designs (as a work in process) and showcase the different features they have created. In small groups, students look for ways to incorporate programming and code in their design.</p> <p>Demonstrate how to create a diagram with the Using a Chatterbox example</p>	<p>In groups students commence to identify different functions they could code to incorporate into their community. Students create a flowchart (or list of instructions) written in English to show how the functions would be carried out.</p> <p>*The following lessons can be incorporated while the previous session is still in place.</p>
<b>Session Resources</b>	<p><b>Student Resources</b></p> <ul style="list-style-type: none"> <li>• ACS Student Resource: Algorithms</li> <li>• ACS Student Resource: Flowcharts</li> <li>• <a href="#">Hour of Code: Minecraft</a></li> </ul>		<p><b>Teacher Resources</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Using a Chatterbox Flowchart</a></li> </ul>	
8.	Coding in Minecraft	<p><b>Learning Intention</b> Students transfer their flowchart and create code in Minecraft.</p> <p><b>Success Criteria</b> I can use the flowchart of instructions I created to help me program functions in my community design.</p>	<p>Students share the flowchart/instructions they have created to incorporate into their community.</p>	<p>Students transfer their flowcharts/instructions into code in the Minecraft platform into their community.</p>
<b>Session Resources</b>	<p><b>Student Resources</b></p> <ul style="list-style-type: none"> <li>• ACS Student Resource: Algorithms</li> <li>• <a href="#">Hour of Code: Minecraft</a></li> </ul>		<p><b>Teacher Resources</b></p> <ul style="list-style-type: none"> <li>• ACS Teacher Resource: Algorithms</li> <li>• <a href="#">Minecraft Education: Coding with Minecraft</a></li> <li>• <a href="#">Minecraft Maker Code</a></li> <li>• <a href="#">Tynker: Minecraft Coding</a></li> </ul>	

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Session Number	Session Topic Focus	Learning Intention and Success Criteria	Introduction/Teacher Instruction	Whole Class Activity
9.	Evaluating student solution	<p><b>Learning Intention</b> Students will evaluate their design based on a set of questions and prompts.</p> <p><b>Success Criteria</b> I can create a video explanation of my Minecraft design by answering a set questions.</p>	Students present their ultimate school with their peers. In their presentation they showcase their design and explain why they have built the ultimate school.	Students will create a recording of their ultimate school design. Within their recording, they answer the questions and prompts. The focus of the evaluation is on explaining how the used technologies to recreate their school and how they worked collaboratively.
<b>Session Resources</b>	<p><b>Student Resources</b></p> <ul style="list-style-type: none"> <li>• Evaluation questions and prompts                             <ul style="list-style-type: none"> <li>○ Take us through your school. Why did you design it that way?</li> <li>○ How did you work collaboratively to complete this design? What did you do well as a group? What parts of the design did you focus on?</li> <li>○ Rate your design out of 10 – why did you give it that mark?</li> <li>○ What’s a key feature of your design that you really liked?</li> <li>○ How could technology like this be used to help design schools for the future?</li> </ul> </li> </ul>		<p><b>Teacher Resources</b></p> <ul style="list-style-type: none"> <li>•</li> </ul>	

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## Block By Block Project Profile

What is the name of the project? Where was the project located?

What was the purpose of the project?

What other organisations were involved in the project?

How has the project empowered the local people?

What benefits will this project have to local people?

What do you think about using Minecraft for a project like this?

How could you use Minecraft to help our community or a community in need?

What features of the Minecraft stood out for you? What parts did you like?

## Minecraft Challenges

**Learning Reflection: What did you learn and how could this activity be incorporated into your school design?**

Build a house

Build a garden

Build a tree house

Create an underwater scene

Build a river/lake/damn then bridge to go over the water

Build a path that

Build a store that has contains shelves

Build a castle, then build a moat

Build a giant statue of yourself

Build a farm with and then add in crops to harvest

Build a classroom that is colourful on the outside and contains patterns



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Minecraft Design 'Must Haves'	
10 things my school needs	
1.	At the front of your school, welcome guests include an acknowledgment of country.
2.	Find out who the traditional owners of your land are and acknowledge them by naming buildings after them. Find out the local indigenous language and name parts of your school after them.
3.	Create an outdoor space. Include a garden and fill it with native indigenous plants (research what plants you will use). Pick 5 different plants to have in your garden and make signs identifying those plants.
4.	Create 3 different learning spaces. They don't need to be traditional classrooms. Research what classrooms might look in the future and get inspired!
5.	Create an eating area.
6.	Create a space for your favourite subject. What would be the ultimate space to learn that subject in.
7.	Create a path to get around your school. Make this path, fun, colourful and accessible for everyone (colourful and sounds for vision impaired, accessible with a wheelchair etc)
8.	Create a space for being active (physical education). What sports do you like and what equipment's and grounds need to be built.
9.	Create a calming, chill out space. Don't forget your teacher!
10.	Create a library. What would be your top 10 books to include? What other fun things would you add to your library? What dream time story would you include in your library?
11.	Create a performance space. This would be for plays and art exhibitions. Dedicate this space to an indigenous artist. Use their artworks and design to inspire your space.

## FLOWCHART OF A COMMAND IN MINECRAFT

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START



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Assessment – Australian Digital Technologies Curriculum Version 8			
Content Description	Session Number	Assessment Piece	Assessment Statement
Examine the main components of common digital systems and how they may connect together to form networks to transmit data (ACTDIK014)	N/A		
Examine how whole numbers are used to represent all data in digital systems (ACTDIK015)	N/A		
Acquire, store and validate different types of data, and use a range of software to interpret and visualise data to create information (ACTDIP016)	N/A		
Define problems in terms of data and functional requirements drawing on previously solved problems (ACTDIP017)	N/A		
Design a user interface for a digital system (ACTDIP018)	N/A		
Design, modify and follow simple algorithms involving sequences of steps, branching, and iteration (repetition) (ACTDIP019)	7	Flowchart/written instructions	Students identified different tasks they could add to their community design in Minecraft. They created a flowchart/set of instructions to show the sequence of steps to complete their tasks. The sets incorporated branching and iteration.
Implement digital solutions as simple visual programs involving branching, iteration (repetition), and user input (ACTDIP020)	8	Code written	Students converted their flowchart/written set of instructions to code in Minecraft. The code they created used branching, iteration and user input.
Explain how student solutions and existing information systems are sustainable and meet current and future local community needs (ACTDIP021)	1, 2 & 8	Community design reflection	Students explained how Block By Block (an organisation that uses Minecraft to help design communities) meets the needs of local and global communities.
Plan, create and communicate ideas and information, including collaboratively online, applying agreed ethical, social and technical protocols. (ACTDIP022)	1	Working collaboratively to design and create space	Working in the collaborative environment (Minecraft) students worked together to design and create a school. They followed protocols (identified within their group) and followed these to ensure all teams members contributed to the project.
Assessment – Victorian Digital Technologies Curriculum			

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Content Description	Session Number	Assessment Piece	Assessment Statement
Examine the main components of common digital systems, and how such digital systems may connect together to form networks to transmit data (VCDTDS026)	N/A		
Examine how whole numbers are used as the basis for representing all types of data in digital systems (VCDTDI027)	N/A		
Acquire, store and validate different types of data and use a range of software to interpret and visualise data to create information (VCDTDI028)	N/A		
Plan, create and communicate ideas, information and online collaborative projects, applying agreed ethical, social and technical protocols (VCDTDI029)	1	Working collaboratively to design and create space	Working in the collaborative environment (Minecraft) students worked together to design and create a community. They followed protocols (identified within their group) and followed these to ensure all team members contributed to the project.
Define problems in terms of data and functional requirements, drawing on previously solved problems to identify similarities (VCDTCD030)	N/A		
Design a user interface for a digital system, generating and considering alternative design ideas (VCDTCD031)	N/A		
Design, modify and follow simple algorithms represented diagrammatically and in English, involving sequences of steps, branching, and iteration (VCDTCD032)	7	Flowchart/written instructions	Students identified different tasks they could add to their community design in Minecraft. They created a flowchart/set of instructions to show the sequence of steps to complete their tasks. The sets incorporated branching and iteration.
Develop digital solutions as simple visual programs (VCDTCD033)	8	Code written	Students converted their flowchart/written set of instructions to code in Minecraft. The code they created used branching, iteration and user input.
Explain how student-developed solutions and existing information systems meet current and future community and sustainability needs (VCDTC034)	1, 2 & 8	Community design reflection	Students explained how Block By Block (an organisation that uses Minecraft to help design communities) meets the needs of local and global communities.

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Assessment – New South Wales Science and Technology Syllabus (Stage 3)			
Outcomes and Objectives	Session Number	Assessment Piece	Assessment Statement
Explains how digital systems represent data, connect together to form networks and transmit data (ST3-11DI-T)	N/A		
Acquire, store, access and validate different types of data, and use a range of software to present, interpret and visualise data (ACTDIP016)	N/A		
Examine and critique needs, opportunities or modification using a range of criteria to define a project define a need or opportunity according to functional and aesthetic criteria Consider availability and sustainability of resources when defining design needs and opportunities Examine and determine functional requirements to define a problem	N/A		
Identify data required to formulate algorithms to improve a process (ACTDIP017)	N/A		
Defines problems, and designs, modifies and follows algorithms to develop solutions (ST3-3DP-T) Design, modify and follow simple algorithms extend sequences of steps to provide a series of possibilities through branching Develop solutions through trialling and refining using iterations (ACTDIP019)	4	Flowchart/written instructions	Students identified different tasks they could add to their community design in Minecraft. They created a flowchart/set of instructions to show the sequence of steps to complete their tasks. The sets incorporated branching and iteration.
Implement digital solutions as visual programs involving branching, iteration and user input (ACTDIP020)	5	Code written	Students converted their flowchart/written set of instructions to code in Minecraft. The code they created used branching, iteration and user input.
Plans and uses materials, tools and equipment to develop solutions for a need or opportunity (ST3-2DP-T) negotiate criteria for success, based on defined needs, sustainability and aesthetics Develop appropriate and fair processes to test a designed solution according to criteria	1 & 6	Community design reflection	Students explained how Block By Block (an organisation that uses Minecraft to help design communities) meets the needs of local and global communities.
Explain how students' solutions and existing information systems meet current and future local community needs (ACTDIP021)	1 & 6	Community design reflection	Students explained how Block By Block (an organisation that uses Minecraft to help design communities) meets the needs of local and global communities.

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<b>Assessment – New South Wales Science and Technology Syllabus (Stage 3)</b>			
<b>Outcomes and Objectives</b>	<b>Session Number</b>	<b>Assessment Piece</b>	<b>Assessment Statement</b>
Work collaboratively to share, appraise and improve ideas to achieve design purposes Identify, organise and perform strategic roles within a group to solve a problem	1	Working collaboratively to design and create space	Working in the collaborative environment (Minecraft) students worked together to design and create a community. They followed protocols (identified within their group) and followed these to ensure all teams members contributed to the project.

<b>Assessment – Western Australian Digital Technologies Syllabus</b>			
<b>Year 5</b>			
<b>Content Description</b>	<b>Session Number</b>	<b>Assessment Piece</b>	<b>Assessment Statement</b>
Digital systems have components with basic functions that may connect together to form networks which transmit data (ACTDIK014)	N/A		
Data is represented using codes (ACTDIK015)	N/A		
Collect, store and present different types of data for a specific purpose using software (ACTDIP016)	N/A		
Design solutions to a user interface for a digital system (ACTDIP018)	N/A		
Design, follow and represent diagrammatically, a simple sequence of steps (algorithm), involving branching (decisions) and iteration (repetition) (ACTDIP019)	4	Flowchart/written instructions	Students identified different tasks they could add to their community design in Minecraft. They created a flowchart/set of instructions to show the sequence of steps to complete their tasks. The sets incorporated branching and iteration.
Implement and use simple programming environments that include branching (decisions) and iteration (repetition) (ACTDIP020)	5	Code	Students converted their flowchart/written set of instructions to code in Minecraft. The code they created used branching, iteration and user input.
Create and communicate information, including online collaborative projects, using agreed social, ethical and technical protocols (codes of conduct) (ACTDIP022)	1	Working collaboratively to design and create space	Working in the collaborative environment (Minecraft) students worked together to design and create a community. They followed protocols (identified within their group).
Define a problem, and set of sequenced steps, with users making a decision to create a solution for a given task (WATPPS27)	4	Flowchart/written instructions	Students identified different tasks they could add to their community design in Minecraft.
Identify available resources (WATPPS28)	N/A		

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<b>Assessment – New South Wales Science and Technology Syllabus (Stage 3)</b>			
<b>Outcomes and Objectives</b>	<b>Session Number</b>	<b>Assessment Piece</b>	<b>Assessment Statement</b>
Develop and communicate alternative solutions and follow design ideas, using annotated diagrams, storyboards and appropriate technical terms (WATPPS29)	4	Flowchart/written instructions	Students created a design of their community and created a flowchart to help them when they included code.
Select, and apply safe, procedures when using components and equipment to make solutions (WATPPS30)	N/A		
Develop negotiated criteria to evaluate and justify design processes and solutions (WATPPS31)	1 & 6	Community design reflection	Students explained how Block By Block meets the needs of local and global communities.
Work independently, or collaboratively when required, to plan, develop and communicate ideas and information for solutions (WATPPS32)	1	Working collaboratively to design and create space	Working in the collaborative environment (Minecraft) students worked together to design and create a community. They followed protocols (identified within their group).

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## Assessment – Western Australian Digital Technologies Syllabus

Year 6			
Content Description	Session Number	Assessment Piece	Assessment Statement
Digital systems have components with basic functions and interactions that may be connected together to form networks which transmit different types of data (ACTDIK014)	N/A		
Whole numbers are used to represent data in a digital system (ACTDIK015)	N/A		
Design, modify, follow and represent both diagrammatically, and in written text, simple algorithms (sequence of steps) involving branching (decisions) and iteration (repetition) (ACTDIP019)	4	Flowchart/written instructions	Students identified different tasks they could add to their community design in Minecraft. They created a flowchart/set of instructions to show the sequence of steps to complete their tasks. The sets incorporated branching and iteration.
Implement and use simple visual programming environments that include branching (decisions), iteration (repetition) and user input (ACTDIP020)	5	Code	Students converted their flowchart/written set of instructions to code in Minecraft. The code they created used branching, iteration and user input.
Manage the creation and communication of information, including online collaborative projects, using agreed social, ethical and technical protocols (ACTDIP022)	1	Working collaboratively to design and create space	Working in the collaborative environment (Minecraft) students worked together to design and create a community. They followed protocols (identified within their group).
Define a problem, and a set of sequenced steps, with users making decisions to create a solution for a given task (WATPPS33)	4	Flowchart/written instructions	Students identified different tasks they could add to their community design in Minecraft.
Identify available resources (WATPPS34)	N/A		
Design, modify, follow and represent both diagrammatically, and in written text, alternative solutions using a range of techniques, appropriate technical terms and technology (WATPPS35)	4	Flowchart/written instructions	Students created a design of their community and created a flowchart to help them when they included code.
Select, and apply safe, procedures when using a variety of components and equipment to make solutions (WATPPS36)	N/A		
Develop collaborative criteria to evaluate and justify design processes and solutions (WATPPS37)	1 & 6	Community design reflection	Students explained how Block By Block meets the needs of local and global communities.
Work independently, or collaboratively when required, considering resources, to plan, develop and communicate ideas and information for solutions (WATPPS38)	1	Working collaboratively to design and create space	Working in the collaborative environment (Minecraft) students worked together to design and create a community. They followed protocols (identified within their group).



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