# Trinity Bay State High School Course Planner Term 1 Year 7 Digital Design



Week	Curriculum Intent	Formative Tasks & Summa
Week 1	UNIT 1: THE INVENTION PROCESS	
	Getting to know you activities	
	The Invention Process	
	• Safety	
Week 2	UNIT 1: THE INVENTION PROCESS	Product sketch and annotation
	<ul> <li>Introduction to design (product)</li> </ul>	
	<ul> <li>Accessing QLearn, OneDrive, Outlook and PowerPoint</li> </ul>	
Week 3	UNIT 1: WHEELCHAIR DESIGN	
	<ul> <li>Think it: Get a great idea for an invention</li> </ul>	
	Explore it: Get informed by researching past inventions and ideas	
Week 4	UNIT 1: WHEELCHAIR DESIGN	Task 1: Think it & Explore it
	<ul> <li>Sketch it: Draw pictures and diagrams to figure out how your invention might work</li> </ul>	PowerPoint (QLearn)
Week 5	UNIT 1: WHEELCHAIR DESIGN	
	Sketch it: TinkerCAD	
	Tweak it: Keep improving your idea	
Week 6	UNIT 1: WHEELCHAIR DESIGN	Task 2: Sketch it PowerPoint
	<ul> <li>Create it: Build a prototype of your idea</li> </ul>	(QLearn)
	Working safely with tools	
Week 7	UNIT 1: WHEELCHAIR DESIGN	
	Create it: Build a prototype of your idea	
Week 8	UNIT 1: WHEELCHAIR DESIGN	SUMMATIVE ASSESSMENT
	<ul> <li>Share it: Market your invention to people who might buy it</li> </ul>	Task 3: Physical prototype and
	Finish PowerPoint and submit to QLearn	Final PowerPoint (QLearn)
Week 9	UNIT 1: WHEELCHAIR DESIGN	
	Share it: Market your invention to people who might buy it	
	Advertising your product!	
Week	UNIT 1:	
10	Share it: Market your invention to people who might buy it	
	The Invention Process – Reflections	

### Trinity Bay State High School Course Planner Term 1 Year 7 Digital Technologies



Week	Curriculum Intent	Formative Tasks & Summat Assessment	
Week 1	UNIT 1: DIGITAL SYSTEMS		
	<ul> <li>Technology at Trinity Bay – Logging in, QLearn, SharePoint and OneSchool</li> <li>Using Microsoft 365 (OneDrive, Outlook, Word, PowerPoint, Whiteboard)</li> <li>OneDrive (Cloud) organisation</li> </ul>		
Week 2	UNIT 1: DIGITAL SYSTEMS		
	<ul> <li>Using Microsoft 365 (OneDrive, Outlook, Word, PowerPoint, Whiteboard)</li> <li>Documenting how to access the digital systems at Trinity Bay in PowerPoint</li> </ul>		
Week 3	UNIT 1: DIGITAL SYSTEMS	ICT Diagnostic Portfolio (QLearn)	
	Finalising PowerPoint for submission		
	Uploading assessment on QLearn		
Week 4	UNIT 1: CYBERSECURITY	Certificate of Completion (QLearn	
	Minecraft Cybersafety module		
Week 5	UNIT 1: DIGITAL FOOTPRINTS	Certificate of Completion (QLearn	
	Minecraft Digital Footprint module		
Week 6	UNIT 1: DIGITAL SOLUTIONS	User Story Functionality Table	
	Identify the needs of a user from a real world problem	(QLearn)	
	Organise needs into functional and non-functional requirements		
Week 7	UNIT 1: DIGITAL SOLUTIONS	Algorithm Flowchart (QLearn)	
	Using Makecode and Micro:bits		
	<ul> <li>Using Inputs, Processes (decisions) and Outputs to create an algorithm</li> </ul>		
	Documenting algorithm through a flowchart on PowerPoint		
Week 8	UNIT 1: DIGITAL SOLUTIONS		
	Using Makecode to create the solution to a user's problem		
	Testing and debugging algorithms		
Week 9	UNIT 1: DIGITAL SOLUTIONS	SUMMATIVE ASSESSMENT: Micro	
	Evaluating your solution against the functional and non-functional requirements	Digital Solution (QLearn)	
Week 10	UNIT 1: DIGITAL ETIQUETTE		
	Minecraft Building Challenge		
	Working with others online		

# Trinity Bay State High School Course Planner Term 1 Year 8 Digital Design Technologies



**Class:** Year 8 (Term 1 – 4)

Week	Curriculum Intent	Formative Tasks & Summative Assessment
Week 1	UNIT 1: DIGITAL SYSTEMS	
	Technology at Trinity Bay – Logging in, QLearn, SharePoint and OneSchool	
	<ul> <li>Using Microsoft 365 (OneDrive, Outlook, Word, PowerPoint, Whiteboard)</li> </ul>	
	OneDrive (Cloud) organisation	
Week 2	Applying the Invention Process: Inputs and Outputs	
	Build a (cardboard) bridge	
	Understanding sensors	
Week 3	Exploring sensors in the home	
	Where do we use sensors in the home?	
	Introduction of Term project	
Week 4	Justifying the placement of sensors	
	How to write a justification	
	Completing the justification of a first sensor in the smart home	
Week 5	Justification and placement of sensors	
	Completing the justification of a first sensor in the smart home	
	Starting second sensor in my smart home	
Week 6	Checkpoint: Draft submission of Folio	Checkpoint: Draft folio due (QLearn)
	Using templates to check my justification	
	Self-evaluating my justifications and my writing	
Week 7	Feedback and improvement	
	How to apply feedback to improve my work	
	Identifying areas of improvement	
Week 8	Continuing development of project	
	Completing features of my Folio and Project	
	Identifying what I can do to make my project better	
Week 9	Making sure my work aligns with the criteria	SUMMATIVE ASSESSMENT DUE: Folio
	Checking my work meets the criteria	and Project (QLearn)
	Completing and submitting my Folio and Project	
Week 10	Digital Design: Craft week	
	Paddle pop stick Building Challenge	
	Exploring where I can take Digital Design	

# Trinity Bay State High School Course Planner Term 1 Year 8 Digital Design



Week	Curriculum Intent	Formative Tasks & Summar Assessment
Week 1	UNIT 1: THE INVENTION PROCESS	
	Getting to know you activities	
	The Invention Process	
	Safety	
Week 2	UNIT 1: THE INVENTION PROCESS	Product sketch and annotation
	Introduction to design (product)	
	Accessing QLearn, OneDrive, Outlook and PowerPoint	
Week 3	UNIT 1: WHEELCHAIR DESIGN	
	Think it: Get a great idea for an invention	
	Explore it: Get informed by researching past inventions and ideas	
Week 4	UNIT 1: WHEELCHAIR DESIGN	Task 1: Think it & Explore it
	<ul> <li>Sketch it: Draw pictures and diagrams to figure out how your invention might work</li> </ul>	PowerPoint (QLearn)
Week 5	UNIT 1: WHEELCHAIR DESIGN	
	Sketch it: TinkerCAD	
	Tweak it: Keep improving your idea	
Week 6	UNIT 1: WHEELCHAIR DESIGN	Task 2: Sketch it PowerPoint
	Create it: Build a prototype of your idea	(QLearn)
	Working safely with tools	
Week 7	UNIT 1: WHEELCHAIR DESIGN	
	Create it: Build a prototype of your idea	
Week 8	UNIT 1: WHEELCHAIR DESIGN	SUMMATIVE ASSESSMENT
	Share it: Market your invention to people who might buy it	Task 3: Physical prototype and
	Finish PowerPoint and submit to QLearn	Final PowerPoint (QLearn)
Week 9	UNIT 1: WHEELCHAIR DESIGN	
	Share it: Market your invention to people who might buy it	
	Advertising your product!	
Week	UNIT 1:	
10	Share it: Market your invention to people who might buy it	
	The Invention Process – Reflections	

### Trinity Bay State High School Course Planner Term 1 Year 8 Digital Technologies



**Class:** Year 8 (Term 1 – 4)

Week	Curriculum Intent	Key Points/Artefacts/Assessment
	Learning Intention:	
	to access, organise and use key online cloud environments	Evidence of Learning:
	Success Criteria:	Opening and saving of
1	I can successfully locate and open OneDrive and save documents.	PowerPoint Portfolio template
	I can successfully access and use Microsoft Whiteboard to collaborate with others	Assessment Task
	I can access and use common utilities within Microsoft 365 including email, SharePoint, word and PowerPoint	
	Learning Intention:	
	to access, organise and use key online cloud environments	
	Success Criteria:	Evidence of Learning:
2	I can successfully locate and open OneDrive and save documents.	Upload of portfolio to     Qlearn
	I can successfully access and use Microsoft Whiteboard to collaborate with others	Assessment Task
	I can access and use common utilities within Microsoft 365 including email, SharePoint, word and PowerPoint	
	Learning Intention:	
	to understand that data as systematically organised numbers (QLearn, MS)	Evidence of Learning:
3	Success Criteria:	<ul><li>Data representation</li><li><u>Assessment Task</u></li></ul>
	I can use Microsoft Excel to create graphs.	

Week	Curriculum Intent	Key Points/Artefacts/Assessment
	I can access and use online platforms to participate in surveys. I have created	
4	Learning Intention:  IDENTIFY and Determine hardware components of PC, Tablet, mobile device. Recognise main types of networks that devices communicate through.  Success Criteria:  I have participated in and completed Computer Build Challenge. I can explain the difference between bluetooth, local, and wide area networks.	Evidence of Learning:     Successful participate in and complete all activities
5	Learning Intention:  IDENTIFY binary as the foundational language of digital environments. Apply binary conversions.  Success Criteria:  I have participated in and completed the Binary Code Breaker challenge	• Evidence of Learning:  o Successful participate in and complete Code Breaker Challenge
6	Learning Intention:  UNDERSTAND how images are represented in digital systems.  Success Criteria:  I have created and manipulated data to create and/or modify a sprite in Arcade Makecode.	Evidence of Learning:  • Submitted sprite data arrays to QLearn
7	Learning Intention:  GENERATE a game or animation that responds to user input.  Success Criteria:  I have GENERATED and documented an algorithm to work with Makecode. I have documented this and submitted this on Qlearn.	Evidence of Learning:  • Sprite event algorithm completed •
8	Learning Intention:  GENERATE code on Makecode to solve the User's problem  Success Criteria:  I have GENERATED code in Makecode to create a digital solution. I have documented this on PowerPoint.	<ul> <li>Evidence of Learning:</li> <li>Practice code</li> <li>Screenshot of code for digital solution</li> </ul>

Week	Curriculum Intent	Key Points/Artefacts/Assessment
	Learning Intention:	
	EVALUATE code for your digital solution	Evidence of Learning:
9	Success Criteria:	<ul> <li>Evaluation and powerpoint uploaded to</li> </ul>
	I have completed my code and evaluated my solution against the design criteria on my PowerPoint. I have submitted this PowerPoint on QLearn.	Qlearn
	Learning Intention:	
10	GENERATE and DEVELOP creative building ideas.  Success Criteria:	<ul> <li>Adherence to rules for online etiquette.</li> </ul>
	I have participated in the Development Challenge.	

# Trinity Bay State High School Course Planner Term 4

## **Year 9 – Digital Technologies**



Class: Games Programming
Teacher/s: Mr. Davey, Mr. Tyson

Achievement Standard:

- They design and implement modular programs, including an object-oriented program, using algorithms and data structures involving modular functions that reflect the relationships of realworld data and data entities.
- Students plan and manage digital projects using an iterative approach.
- They define and decompose complex problems in terms of functional and non-functional requirements.

Week	Lesson Title	Tasks and Assessment	
Week 1	Getting started with Arcade	Complete concept tutorials	
	Tutorials	Task: "Create a basic game from3+ concepts".	
Week 2	Flowcharts – understanding branching	Start Jungle Jump Tutorial Extend the level.	
	Understanding conditions	Create flowchart for Jump algorithm. (Q Learn submission) Task: "Describe how to make jumping work."	
Week 3	Tracing algorithms	Trace algorithms in Jungle Jump	
		Document "block boost" algorithm. (Q Learn submission) Copy and paste code. Task: "Identify the problem with the algorithm. Describe how you would solve this problem" Task: "Trace the algorithm and identify where you could check for a condition before placing the block"	
Week 4	Modifying algorithms	Modify block placement	
		Block bounce boost	
Week 5	Arcade "Block" Games	Choose a game. Identify and trace 2 algorithms.	
	OR Doodle Jump clone	(Q Learn submission)	
Week 6	Scroller	Plan a level. Identify how pickups and obstacles create a challenging and rewarding game. (Q Learn upload) Implement given algorithm. (Jump)	
Week 7	Scroller	Develop game mechanic that uses state to control gameplay/behaviour	
VVCCK /	JCI OIIEI	Develop game mechanic that uses state to control gameplay/behaviour	
Week 8	Scroller	Plan and implement a second level Continue developing game mechanic	
Week 9	Scroller	Finalise game.	
		Play another students game and complete feedback sheet.	
Week 10			

# Trinity Bay State High School Course Planner Term 4 Year 9 Robotics



Week	Curriculum Intent	Formative Tasks & Summative Assessment
Week 1	Machine learning – object detection	
	Create an object detection model in pictoblox	
	Use object detection model in a block program	
Week 2	Assessment Task - intro	Submission of task option and brief
	<ul> <li>Introduction to machine learning and block coding assessment task</li> </ul>	
Week 3	Assessment task continued	Submission of assessment
	Model training	
	Block programming	
Week 4	Introduction to spheros	Reflection task
	<ul> <li>Participation in activities focusing on manually controlling sphero</li> </ul>	
	Bridge challenge, maze navigation etc	
Week 5	Sphero	
	<ul> <li>Model the solar system</li> </ul>	
	Use coordinates programming to navigate a maze	
Week 6	Sphero – assessment task	Submit lesson plan
	Create a learning activity the teaches coding	
Week 7	Sphero showcase	
	Run activities with year 7 class	
Week 8	Lego mindstorm challenge	
	Learn to program EV3 bricks	
Week 9	Lego mindstorm challenge	
	Build lego vehicle to match task and EV3 programming	
Week 10	Sort robotics kits	

### Course Planner - 2024

**Subject:** Year 9 Digital Design

**Topics:** Vinyl cutter/3D printer design project



## Trinity Bay SHS

Hoare Street PO Box 5071 Ph. 40 375 222 www.trinity bayshs.eq.edu.au

Week	This Unit is Term 4 (2 Lessons per Week)	Assessment	Feedback
Week 1	Introduction to Project		
	Part A: Investigating and defining		
	<ul><li>Technologies and society</li><li>Features of technologies</li></ul>		
Week 2	Part A: Investigating and defining		
	<ul><li>Existing logos</li><li>Criteria for success</li></ul>		
Week 3	Part A: Investigating and defining	Part A Due	
	<ul><li>Criteria for success</li><li>Intro to AutoCAD</li></ul>		
Week 4	Part B: Generating and designing		
	- 3 initial sketch ideas		
Week 5	Part B: Generating and designing - 3 initial sketch ideas - Final design idea		
Week 6	Part B: Generating and designing - Final design idea	Part B Due	
Week 7	Part C: Producing and implementing		
	- Produce AutoCAD final design drawing		
Week 8	Part C: Producing and implementing	Part C Due	
	- Produce AutoCAD final design drawing		
Week 9	Part D: Evaluation Project DUE	Part D Due	
Week 10			

#### Trinity Bay State High School Course Planner Term 4 Year 10 Design



Week	Curriculum Intent	Formative Tasks & Summative Assessment
Week 1	Introduction to Assessment	
	<ul><li>unpacking the task and research</li><li>Students are tasked with designing a product, service, or</li></ul>	
	environment to help promote, celebrate and encapsulate	
	the Trinity Bay State High School Spirit which is shown in one of	
	the many groups which is organised at the school.	
Week 2	Design Brief and Design Criteria	
	<ul> <li>Class time for task completion as student write their design brief</li> </ul>	
	and design criteria based on their chosen group and research	
Week 3	Visual Documentation of Design Process and Ideation	
	<ul> <li>Students represent their ideas and design concepts using</li> </ul>	
	schematic sketching, ideation sketching, and low-fidelity	
	<ul><li>prototyping.</li><li>Students guided in creating a visual display of design concepts.</li></ul>	
	• Students guided in creating a visual display of design concepts.	
Week 4	Visual Documentation	
	<ul> <li>Students represent their ideas and design concepts using</li> </ul>	
	schematic sketching, ideation sketching, and low-fidelity	
	prototyping.	
Week 5	<ul> <li>Students guided in creating a visual display of design concepts</li> <li>Visual Documentation cont.</li> </ul>	Draft due
	Students represent their ideas and design concepts using	Drait due
	schematic sketching, ideation sketching, and low-fidelity	
	prototyping.	
	Students guided in creating a visual display of design concepts	
Week 6	Design Proposal	
	<ul> <li>Students evaluate the strengths, limitations, and implications of</li> </ul>	
	their design concepts against design criteria to make refinements.	
	Students communicate a visual presentation of their design	
M/a -1: 7	concept using illustrations and low-fidelity prototypes	F: 1
Week 7	Final Submission Due	Final Submission Due
	<ul> <li>Class time for finalizing and submitting the project, including multimodal submissions for review</li> </ul>	Jubillission Duc
Week 8	Design Challenge	
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# Class Course Planner – 2024 Semester 2 Term 4

### Trinity Bay SHS

Hoare Street PO Box 5071 Ph. 40 375 222 www.trinity bayshs.eq.edu.au

Class: 11 ICJ Teacher/s: Tyson

Term	Curriculum Intent –	Assessment	Foodbook v. F
Week	eSports	x 6	Feedback x 5
T4 Wk1	Title – Introduction to web design  Introduce the project requirements: students will build a website for their esports brand and include products they developed.  Discussion on what makes an effective website (e.g., userfriendly design, aesthetics, functionality).  Exploration of platforms: WordPress, Wix, Shopify, or custom coding with HTML/CSS.	First 3 pages of website: Intro, Main and Channel	
T4 Wk2	Title - Web Basics  • Principles of design: layout, colour schemes, typography, and responsive design.  • Hands-on Activity: Sketch a basic layout for their website, considering brand aesthetics and user flow.	Next page of website: Products	First 3 Pages Feedback
T4 Wk3	Title – Products and Brand  Selection and placement of images  Product descriptions		Product Page Feedback
T4 Wk4	Title – Self marketing  • Adding blogs to improve SEO  • Adding videos to website	Next page of website: Blog	
T4 Wk5	<ul> <li>Title – Web Building Advanced</li> <li>Making page user friendly</li> <li>(Optional) Adding Shopping cart/Apps/Games</li> <li>Adding Social Media links</li> </ul>	Next page of website: Social	Blog Page Feedback
T4 Wk6	Title – Troubleshooting  Surveying others for feedback on site  Addressing and fixing potential issues	Class Survey	Social Page Feedback
T4 Wk7	Title - Assessment Due     Finalise website     Submit	Complete website	
T4 Wk8	Title – Reflection  Assessment Feedback and grade  Reflection on Term 4 and Year		Assessment
T4 Wk9			
T4 Wk10			

#### Trinity Bay State High School Course Planner Term 4 Year 11 – Digital Solutions



**Class:** Games Programming

Week	Curriculum Intent	Formative Tasks & Summative Assessment
Week 1	Review FIA3 process	
	IA1 Handout.	
Week 2	Start Explore phase: IA1	
	Researching the context	
	<ul> <li>Identify criteria for successful solution. Plan ahead</li> </ul>	
Week 3	Refine Exploration phase.	Submit Initial Exploration phase
	Sketch UI	
	<ul> <li>Start development of solution</li> </ul>	
Week 4	Identify Data flows	
	Analyse and Develop data requirements	
Week 5	Refine draft of development	Submit draft development
	•	
Week 6	Generate Lo-Fidelity prototype (no-code mock-up)	
Week 7	•	
	<ul> <li>Evaluate solution against your criteria</li> </ul>	
Week 8	•	MONDAY – Final Due