

Year 7 - Technology Mandatory 2022

*Please note : The timing of each topic will depend upon the availability of rooms and resources.
Therefore classes will begin each topic at different times of the year as determined by the timetable.*

TERM X		
TIMING Weeks:12	Robotics : Students develop knowledge and skills in the use of algorithms and a general-purpose programming language to design, produce and evaluate a computer solution incorporating a robot. They document their skill-development tasks in a design and production folio.	
	UNIT OVERVIEW	ASSESSMENT
	A student: <ul style="list-style-type: none"> • TE4-1DP - designs, communicates and evaluates innovative ideas and creative solutions to authentic problems or opportunities • TE4-2DP - plans and manages the production of designed solutions • TE4-4DP - designs algorithms for digital solutions and implements them in a general-purpose programming language • TE4-7DI - explains how data is represented in digital systems and transmitted in networks • TE4-10TS - explains how people in technology-related professions contribute to society now and into the future 	Task Number: X Nature of Task: Documentation of the design process and presented in a design folio. Plan and produce program code to drive a robot. Percentage: 33 Week: 12 Reported: Semester 1 or Semester 2

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TERM X

Pinball Wizard : This project provides students with opportunities to experiment and develop a working Pinball Machine prototype. The Engineered Systems context focuses on how force, motion and energy can be used in systems, machines and structure.

UNIT OVERVIEW

A student:

- **TE41DP** - designs, communicates and evaluates innovative ideas and creative solutions to authentic problems or opportunities
- **TE42DP** - plans and manages the production of designed solutions
- **TE43DP** - selects and safely applies a broad range of tools, materials and processes in the production of quality projects
- **TE48EN** - explains how force, motion and energy are used in engineered systems
- **TE410TS** - explains how people in technology related professions contribute to society now and into the future

ASSESSMENT

Task Number: X

Nature of Task:
Documentation of the design process and presented in a design folio.

Plan and produce a wooden pinball machine

Percentage: 33

Week: 12

Reported: Semester 1 or Semester 2

TIMING
Weeks:
12

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TERM X

Grow and Thrive : In this unit, students will be introduced to the basic food preparation skills needed to participate in the Food Technology classroom. Through a range of design, experimentation and testing procedures students are set the challenge of creating a sustainable design solution for growing a variety of vegetables and micro herbs. Throughout the design, development and practical creation of the project, students expand their knowledge of food, agriculture and technology as they collaboratively improve and apply their content knowledge to practical problem-solving situations. Students will complete an in-depth study of a variety of micro herbs in season, as well as planting, cultivating and harvesting a vegetable in season, whilst exploring the school agricultural farm and participating in practicals using these ingredients. To complement the hands-on activities applied in this unit, students record their evidence of testing, problem-solving and design successes and failures using BYOD technology, culminating in the creation of a digital portfolio. Students will incorporate digital technology in programming a micro:bit to test soil for moisture and temperature levels and record this appropriately.

UNIT OVERVIEW

A student:

- **TE4-1DP** - designs, communicates and evaluates innovative ideas and creative solutions to authentic problems or opportunities
- **TE4-2DP** - plans and manages the production of designed solutions
- **TE4-3DP** - selects and safely applies a broad range of tools, materials and processes in the production of quality projects
- **TE4-5AG** - investigates how food and fibre are produced in managed environments
- **TE4-6FO** - explains how the characteristics and properties of food determine preparation techniques for healthy eating
- **TE4-10TS** - explains how people in technology related professions contribute to society now and into the future

ASSESSMENT

Task Number: X

Nature of Task:

Food Product and Folio

Percentage: 33

Week: 12

Reported: Semester 1 or 2

TIMING
Weeks:
12