Year 9 Technology- Term One

Lesson Sequence	**Learning Intentions**
<u>Introduction</u> • Explanation of the whole year. • Four different tech. areas with a different technological focus. • Stationery packs hold 4 clear files. One per term for each different area. • Students to fill in **data** sheet (hand to Rm) <u>Codes of Practice</u> • Clear files are to be clearly named and NO graffiti and should be taken to every lesson. • Students are required to line up quietly outside their technology room and should enter the room when the teacher indicates. • Students should NOT be in the technology block at interval and lunchtime. • Safety instructions will be given by the teacher each term. <u>Activities</u> • Please insist that your subject is called **Technology.** • What is a technology? Students could work in groups and brainstorm technologies under the different headings. • Give examples that students are familiar with. E.g. why were cell phones invented when land lines do the same job? • Us e the attached examples and ask students "What were the reasons or triggers for the invention or changes to an existing product?" • Hwk. What is kiwi ingenuity? • What is innovation? • Introduce **The Technology Cycle.** • Using the video 'Millenium Moments' view The Development of the Soccer Boot Video or Bullet Proof Vest or Snowsuit. Students answer **task sheet**. • **Berries for the Birds** • Planned unit is then delivered. • End of Module Assessment activity **"How I used the technology cycle"**	The teacher: • Establishes an environment that supports student learning • Structures student technological practice through a series of linked activities. • Provides students with an overview of the technology cycle. Students can: • Recognise the requirements and routines of the course. • Know that a technology is a product, system or environment. It may be a new technology or one that has evolved from an existing technology. • Understand that technologies evolve due to a need or opportunity. • Identify innovation and ingenuity are very much part of the NZ culture. • Understand that products are improved through a process of identifying a need, researching existing solutions, etc. • Can relate the technology cycle to industry practice.

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Term Two **The Technology Cycle** now shows the inclusion of **Brief Development** as a Key Competency. Introduce this idea to the students and use the teacher resource to define a brief. They may like to start a glossary of terms. Resources: Page headed Brief Development(teacher) and the Egg Holder (student) **Activity One** Trash or Treasure. It is important that students are reminded of the fact that a brief should allow more than outcome. Students work in pairs to trash or treasure the Initial Briefs. **Activity Two** Brief Analysis. Ask students to get out their rulers and you may like to have a tape measure or a wooden/steel ruler to demonstrate how only the 30cms ruler meets the brief. It is an exact description made up of two parts. The second sheet brief analysis shows the questions students should use as a checklist against a brief at this level. **Activity Three** Pair or Group activity so students can practise writing a brief. **Homework Activity** **Assessment of Brief Development** will be based on how well the student developed their own brief within the technological area they are working in Term Two.	The teacher: • Establishes the Context and Issue. • Guides students to define an Initial Brief. • Guides students to develop a Final Brief and Specifications. • Structures activities to enable students to understand the importance of brief development within the technology cycle. Students can: • Recognise that brief development is part of the technology cycle. • Identify the purpose of a brief. • Recognise open ended initial briefs allow a range of outcomes to solve an issue. • Analyse a given brief • Develop a Brief and Specifications

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Term Three. Introduce the **Technology Cycle** and how **Planning** has now been introduced as a key competency. Students are still expected to develop a brief within the new context as well as planning. Planning is key to managing any project and students can be shown teachers plan books, unit plans or any other planning tool to show how planning tools are used in the 'real world.' **Activity One.** As a class develop a proposed timeline with key tasks and assessment points as per the page in the student booklet. Part of this procedure will be to block out the lessons and weeks in the term that are not timetabled. **Activity Two** Throughout the term students should be using the Actual timeline and adjusting the times according to the key tasks and times they have achieved. Key resources should be identified. **Assessment** Will be based on the Actual timeline and the responses to the four questions on the page headed Planning Tasks. This could take place two weeks before the end of term to enable reports to be written.	As for term two and: The teacher • Structures activities to enable students to understand the importance of planning to manage key steps in the technology cycle. Students can: • Recognise planning is part of the technology cycle and is a tool used in many industry and business practices. • Use a Gantt chart as a planning tool. • Understand that planning can change due to other circumstances. • Plan, explain and record ideas for future activities (including resources) to support the completion of their technological outcomes.

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Term Four. Note: This is often a short term with many interruptions and reports are required around Week 7. If authentic technological practice has taken place students will have been evaluating their research, concepts and development throughout the year. Outline to the students the value of evaluation and how reflecting, reviewing and revising leads to a quality solution. Students are asked to respond to three key questions: **Concepts** 1 Do your ideas meet the stakeholders' needs? 2 Which idea best suits the needs of the stakeholder? Explain your response. 3 Which idea does your stakeholder think best suit their needs? **Development.** 1 What ideas will you need to develop to address the stakeholders' needs? 2 As your design develops what else will you need to consider? 3 How does your final design meet the stakeholders' needs? **Final Evaluation** 1 Was your outcome successful or unsuccessful and why? **End of Year** Students complete the summative baseline data sheets.	As for Terms Two and Three: The teacher: • Establishes an environment that encourages and supports student innovation. • Establishes the context and the issue. • Guides students to develop a brief and specifications. • Guides students to plan for their own practice. • Structures activities to support ongoing evaluation. • Collects summative student data. Students can: • Acknowledge the value of thoughtful evaluation. • Evaluate concepts to incorporate key attributes and address the stakeholder needs. • Justify how the final design meets the stakeholder needs. • Acknowledge how their own practice has influenced the success (or otherwise) of the outcome.