Year 9 Information and Communication Technology (ICT)
Unit Plan "It's a Date"

Lesson Sequence	Resources	Learning Intentions
(Term 1) – One week Introduction and expectations		
1 Outline of the year (four different technology areas, one each term)		
2 Our focus is ICT but the subject is Technology		
3 Stationery – named clearfiles		
4 Establish prior knowledge of Technology	Technology Data Sheet	To introduce students to expectations of course
5 Codes of Practice Students retrieve Codes of Practice document from shared directory. This covers Copyright rules	Shared Directory/Information Management/Year 9ICT/codes of practice feb 06	Students will be aware of the Codes of Practice
Privacy (ethics) Respect and use of equipment (computer and peripherals, laminator, binder, printers, paper usage, chairs)		Students will use the correct Technological Terminology
6 Inform students of the focus for the term. Term one – technology cycle Term two – brief development Term three – planning Term four – evaluation		
7 Group work (brainstorming) – 10 mins approx What is Technology? Give examples that students are familiar with, eg landline to cellphone and teacher experience in industry. Feedback from groups written on whiteboard. Definition established. Student type definition into MS Word document, format and print. Store in clearfile.	Whiteboard	
8 Examples of technological developments discussed eg landlines to cellphones, black and white to colour TV, typewriters to computers. As a class students to come up with other examples.		Students will be aware of existing technological developments and their impact on society.
9 Group work (brainstorming) – 10 mins approx Give out handouts about liquid paper, compass, Frisbee, mobile phone, answering machine, calculator, safety pin, contact lenses. Three per group. Students to answer the question about what the reasons or triggers were for the invention or change.	Handouts Feedback from students on whiteboard	

10 Homework: What is kiwi ingenuity and what is innovation?		
11 The Technology Cycle (Term 1) Explain the cycle. Watch video *Millennium Moments* Soccer Boot. Watch, hand out task sheet, watch again and fill in task sheet. Discuss answers.	Handout Video Task sheet 'The Soccer Boot'	Students are aware of the application of the Technology cycle in industry.
12 Game: Sorting order of Technology cycle (in pairs – timed) Refer to Term 1 Year 9 Scheme of Work Homework: Learn Technology cycle	Memory cards	Students will understand the correct Technological Terminology.
13 Game: Pair Definition Four columns. Write initials down first column of Technology process. In second column write in full. Fold paper. In third column write initials. Fold. In fourth column write in full.	Folded A4 paper and pen	
14 Game: Mix and Match. Match the meanings to the words in the first column. (timed competition between classes)	Mix and Match cards	
15 Berries for Birds handout. Students to cut all 18 squares and stick onto card or paper in the correct sequence.	Scissors, glue, A4 paper	
16 **Skill Development – One Week** <u>Introduction to Keyboarding, Ergonomics and Software Applications</u> Students assessed on prior learning/knowledge. Students with some prior knowledge are encouraged to present their work at a higher level. By doing this they are challenging their skills beyond this year level. Students introduced to basic computer functions, file management, software application use and printing. Introduce students to a typing tutor program to assist correct text entry skills. Keyboarding units 1-5. Print, mark homework schedule and store in clearfile. Complete keyboarding units 6-15 for homework (3 per week). Formative Assessment Tasks – tasks covering text entry and display skills. Print, hand in for marking. Store in clearfile. Bullet points	ICT Prior Learning handout Mavis Beacon Teaches Typing version 16 Keyboarding for Computer Use booklets Data show Handouts. Data show.	Demonstrate competent data entry techniques using an alpha numeric keyboard. Use and apply basic computer functions and applications.
17 **Knowledge Development** Introduction to Ergonomics in ICT Ergonomic specifications for a chair discussed and task sheet finished for homework. Comparison of chairs for computer use as being fit for the purpose and why.	Handout. Data show. Mavis Beacon ergonomics video Ergostation Computer Furniture handout Ergonomics handout	Demonstrate safe working practices and develop an awareness of health and safety issues in the use of ICT.
18 **Knowledge and Skill Development**		Demonstrate competent skills in using basic tools in MS Publisher to create shapes, text and

	Introduction to MS Publisher - One Week Demonstrate basic tools of the program and allow students to explore. Students to learn how to draw shapes and fill with colours/textures. Students to learn how to combine shapes, text and images. Students to print and store in clearfile.	Data show. Shapes and ship handouts. Planets and stickers handouts.	to create shapes, text and images
19	**Self-assessment on progress/skills to date.**		
20	**Formative assessment** Collect in clearfiles, mark and give feedback to students on progress/skills so far.		
21	**Knowledge Development** **The Technology cycle** To prepare students for their own technological practice. Three scenarios are used and students use templates to create and record steps in the technology cycle. Teacher explains the purpose and importance of all the key steps in the technology cycle in relation to developing an ICT product.	Data show. Technology cycle handouts – 1 Award certificate 2 Birthday card 3 CD cover	Students can create and record key steps in the technology cycle when developing an ICT product.
22	**Formative assessment** Check that students are applying key stages of the technology cycle appropriately. Feedback is given to students individually and examples of best practice are shown to the whole class via the data show.		
23	**Technological Practice, Knowledge and Skill Development** Go over the context, issue, class brief and student instructions. Relate back to the technology cycle.	It's a Date booklet –Technology Cycle Term 1	
24	**Introduce the Class Brief It's a Date.** Discussion of suitable stakeholders and means of communicating with them. Students interview stakeholder and build profile. Brainstorm with stakeholder images, colours and fonts that would suit the key stakeholder.	Whiteboard	Students are able to establish stakeholder needs in preparation for developing an ICT product.
25	Look at existing solutions considering what might suit the key stakeholder. Print one page of existing solutions commenting on attributes. Investigate font styles, sizes and colours, backgrounds, images and templates for inclusion/exclusion for possible solution.	Sample calendars, digital camera Images on the shared directory of existing solutions Colour printer, computer, Software applications, Internet, paper	Students to investigate existing solutions.
26	Students evaluate their research to date commenting on suitability/unsuitability for future solution.		Students to evaluate for inclusion/exclusion.

	Formative Assessment Teacher to conference with students on progress - 27-30		Students to receive feedback on progress of technological practice.
27	**Concepts** Demonstrate the use of 2-D sketching to communicate concepts. Students need to refer back to their research notes and expand these ideas by individually drawing concepts. Seek peer and stakeholder feedback. Input of concepts into the computer.	Research notes, paper, pencil, rubber, computer, colour printer, paper	
28	**Key Decisions** Apply their evaluation from their research and feedback from concepts to establish key ideas for the development.		
29	**Development** Through trialling, mock-up and modelling, student selects after stakeholder consultation, the final concept to be fully developed. Print concepts on one page and glue into booklets.	Computer, software, colour printer, paper, scissors, glue	
30	**Working Drawing** Students generate one page working drawing showing an example of one month of the calendar.	Computer, software, colour printer, paper, scissors, glue	
31	**Manufacture** Students will produce their final solution (12 months) and seek stakeholder comments in order to write their evaluation.	Computer, software, colour printer, paper, binder, laminator	Students produce final solution for assessment grade.

(Term 2) – One week - Review of Term 1 and expectations Reflect on the Technology Cycle for Term 1 Brief Development - Eggholder Activity 1: Trash and Treasure Activity 2: Design and develop a measuring device Analysing the Brief Activity 3: Practising writing a brief Homework activity: Newspaper articles 16-20 as per Term 1 **Knowledge Development** **<u>Brief Development</u>** To prepare students for their own technological practice. Three scenarios are used and students use templates to create and record steps in the technology cycle including Brief Development. Teacher explains the purpose and importance of Brief Development in relation to developing an ICT product. **<u>Formative assessment</u>** Check that students are writing their initial and final briefs appropriately. Feedback is given to students individually and examples of best practice are shown to the whole class via the data show. 24-31 as per Term 1 **<u>Brief Development Term Two Focus</u>** Students write an initial brief (what you are doing, who the product is for and the purpose of making it) and attributes. Brainstorm and discuss on whiteboard. Remove and students to record their own brief and particular attributes. **Initial Brief Term 2** Students to write a simple statement about what they are developing, when it could be used and who it is for. **Final Brief Term 2** Students write Final Brief and Specifications which fully describe the final solution ready for manufacture.	Handout Handout Wooden, metal and plastic rulers of various sizes Whiteboard Handout Brown envelopes, various small items eg glue stick, paper clip, sharpener Whiteboard Computer Reward eg chocolate fish Handout Data show. Brief development handouts – 1 Award certificate 2 Birthday card 3 CD cover It's a Date booklet – Brief Development Term 2	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.

(Term 3) Two lessons - Review of Term 2 and expectations **<u>Planning Term Three Focus</u>** Technology Cycle including Planning Why do we plan? Flow charts – sample and students to fill in for their tech practice from last term 16-20 as per Term 1 Introduce Timelines sample on Pop-up cards with proposed and actual **<u>Planning</u>** To prepare students for their own technological practice. Three scenarios are used and students use templates to create and record steps in the technology cycle including Planning. Teacher explains the purpose and importance of Planning in relation to developing an ICT product. **<u>Formative assessment</u>** Check that students are applying key stages appropriately of the Technology Cycle through proposed and actual timelines. Feedback is given to students individually and examples of best practice are shown to the whole class via the data show. 24-31 as per Term 1 **<u>Planning Term 3 Focus</u>** Students prepare a proposed timeline. During It's a Date, students will record their actual timeline.	Handout Real World egs - Plan book, planning pad Sample flow chart – It's a Date Blank flow chart Handout Data show. Planning handouts, including proposed and actual timelines 1 Award certificate 2 Birthday card 3 CD cover It's a Date booklet – Planning Term 3 This includes Initial Brief and Final Brief and Specifications as taught in term 2.	Students can: _ Recognise planning as 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.

(Term 4) – Two lessons - Review of Term 3 Planning and expectations **<u>Evaluation Term Four Focus</u>** Technology Cycle including Evaluation. Why do we evaluate? Reflect back to Term 2 Technology area. Students to respond to three key questions in relation to Concepts, Development and Final Evaluation. 16-20 as per Term 1 **<u>Evaluation</u>** To prepare students for their own technological practice. Three scenarios are used and students use templates to create and record steps in the technology cycle including Evaluation. Teacher explains the purpose and importance of Evaluation in relation to developing an ICT product. 24-31 as per Term 1 Which idea best suits the needs of the stakeholder? Explain your response. Which idea does your stakeholder think best suits their needs? **Evaluate after Development** What ideas will you need to develop to address the stakeholders' needs? As your design develops, what else will you need to consider? How does your final design meet the stakeholders' needs? Evaluate after Manufacture **Final Outcome and evaluation** Student evaluates the success of the solution against the final brief and specifications. **Evaluate after Concepts** Do your ideas meet the stakeholders' needs? Was your outcome successful or unsuccessful and why? Students complete the Understanding of Technology Cycle handout. Students complete the summative baseline data sheet.	Students to answer handout on shared directory. Data show. Evaluation handouts, including proposed and actual timelines 1 Award certificate 2 Birthday card 3 CD cover It's a Date booklet – Outcome and Evaluation Term 4 This includes Initial Brief, Final Brief and Specifications and Planning as taught in term 3. Handout. Handout.	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.