## Lesson Plan Format – Professional Experience Placement

| Year Level: 7   | Term: 4   | Duration of lesson: 60                                       |  |  |
|---|---|--|--|--|
| <b>Learning Area:</b> Technology Mandatory - Material and Digita Technologies   | al Title: Shorts and Labels   | Title: Shorts and Labels                                     |  |  |
| Student Prior knowledge: (specific relevant concepts, skills  | and values the school students hav  | re experienced prior to this lesson):                        |  |  |
| Ss have done a computing  |   |  |  |  |
| Learning objectives - By the end of the lesson the students   | <b>s will:</b> (Written for the teacher to u  | nderstand what students will know, do and understand)        |  |  |
| Learning intentions: (Written in language for the students  | to comprehend what they will know   | v, do and understand)  |  |  |
| Success Criteria: What I am looking for: (Draw from the lea   | arning objectives)  |  |  |  |
| Ss can create a code that runs successfully and makes a log   | о.  |  |  |  |
| Outcomes of the learning area:  | Content Descriptors (include co   | des):  |  |  |
| TE41DP designs, communicates and evaluates innovative ideas and creative solutions to authentic problems or opportunities | • implement and modify programs involving branching, iteration, and functions in a general-purpose programming language, for example: (ACTDIPGGO)  python   |  |  |  |
| TE42DP plans and manages the production of designed solutions   | evaluate the suitability of hardw<br>needs of different users, for example of the suitable of the suitability of hardwards.   | vare with particular performance characteristics against the |  |  |
| TE43DP selects and safely applies a broad range of tools, materials and processes in the production of quality projects   | · ·   | high-powered systems for gaming and computation              |  |  |
| TE44DP designs algorithms for digital solutions and implements them in a general-purpose programming language             | design algorithms that use a range of data types, branching and iteration and represent them diagrammatically and in English (ACTDIP029)     investigate how digital systems represent text, image and audio with whole numbers, for the state of the s |  |  |  |
| TE410TS explains how people in technology related professions contribute to society now and into the future               | example: (ACTDIK024)  - representing letters, digits, syml  | pols and emojis in Unicode                                   |  |  |

• \_ representing colours and pixels as amounts of red, green, blue and alpha

- representing audio signals using sampling and quantisation

|          |   | • implement and modify programs involving branching, iteration, and functions in a general-<br>purpose programming language, for example: (ACTDIPOSIO) |
|----------|---|--|
|          |   | python   |
|          |   | • trace algorithms to predict output for a given input and to identify errors (ACTDIPD29)  |
| Cross-   | Curriculum Priorities and General Capabilities: |  |
|          | Literacy  |  |
| -₩<br>E× | Critical and Creative Thinking                  |  |

## **LESSON SEQUENCE (STEPS)**

| Timing<br>(mins) | Teaching strategies and organization What the teacher will do                                      | Learning experiences What the students will do   | Assessment of, for or as learning (evidence/data) | Resources (include ICT/online)                             |
|------------------|--|--|---|--|
| INTROD           | UCTION   |  |   |  |
| 5                | Greet and Mark Roll  Go over learning intentions and success criteria.                             | Ss will greet T then sit and wait for roll to be marked.  Ss will ask questions if the learning intentions/success criteria are not understood.  | Prior Knowledge                                   | Chromebooks<br>Projector                                   |
|                  |  | Ss will get Chromebooks out.   |   |  |
| DEVELO           | PMENT  |  |   |  |
| 25               | T will guide Ss to worksheets.  T will explain what coding is, how to code and how to code a logo. | Start Coding Logo Introduction  Ss will log on to canvas and find the documents needed for the lesson.  Listen to T instructions and look through worksheet to Identify code and demonstrate how it is read.  Ss will copy and paste the codes provided into Tinker CAD to see how it reads the code  Ss will manipulate the codes to get a better understanding of Coding and how it works. | Observation                                       | Coding Worksheet<br>Projector<br>Chromebooks<br>Tinker CAD |
| CONSO            | LIDATION   |  |   |  |
| 25               | T will observe, trouble shoot and provide feedback on Ss design.                                   | Ss will create a Logo either using the base codes provided or writing their own code then putting them into Tinker CAD to run.   | Observation<br>Feedback                           | Coding Worksheet<br>Projector<br>Chromebooks               |
|                  |  | Once Ss is happy with their logo they designed they will save it and export it onto their swing tag.   |   | Tinker CAD Swing Tag Doc                                   |
| CLOSUR           | E  |  |   |  |
| 5                | T will begin discussion about lesson by asking open ended questions.                               | Ss will pack away Chromebook<br>Ss will discuss what they learnt   |   |  |

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