Year 9 Computer Science Learning Outcomes

Unit 1: Python Programming

- Write programs that display messages, receive keyboard input, and use simple arithmetic expressions in assignment statements
- Use selection (if-elif-else statements) to control the flow of program execution
- Locate and correct common syntax errors
- Create lists and access individual list items
- Perform common operations on lists or individual items
- Use iteration (while statements) to control the flow of program execution
- Perform common operations on lists or individual items
- Perform common operations on strings or individual characters
- Use iteration (for statements) to iterate over list items
- Perform common operations on lists or strings
- Use iteration (for loops) to iterate over lists and strings
- Use variables to keep track of counts and sums
- Combine key programming language features to develop solutions to meaningful problems

Unit 2: Media Animations

- Add, delete, and move objects
- Scale and rotate objects
- Use a material to add colour to objects
- Add, move, and delete keyframes to make basic animations
- Play, pause, and move through the animation using the timeline
- Create useful names for objects
- Join multiple objects together using parenting
- Use edit mode and extrude
- Use loop cut and face editing
- Apply different colours to different parts of the same model
- Use proportional editing
- Use the knife tool
- Use subdivision
- Add and edit set lighting
- Set up the camera
- Compare different render modes
- Create a 3–10 second animation
- Render out the animation