COMPUTATIONAL THINKING
TE WHAKAARO ROROHIKO
YEAR 7-8

Independently I can ....

DECOMPOSE A RANGE OF PROBLEMS INTO STEP-BY-STEP INSTRUCTIONS TO CREATE ALGORITHMS FOR COMPUTER PROGRAMES

- Students will use Scratch to code an instrument of their choice to play "Happy Birthday" Instrument Tutorial
- iPad/iPhone/iOS exclusive lesson; Garageband Beat Sequencer
- Using Microbits to track the soil moisture of your plants Make a soil moisture sensor

DEBUG MY CODE ACCURATELY AND EFFICIENTLY

Scratch De-Bugging Tasks;
- Mr Kitty Kat
- De-Bug Drummer
- Unplugged Fitness Circuits

This is a unplugged activity where students will design a fitness circuit that other groups will then be able to complete

EXPLAIN CHOICES I MAKE AND PREDICT WHAT THE PROCESS WILL DO

Google Earth for directions; have students create a set of directions, and have a partner following their instructions to get from one point to another, anywhere in the globe.

A virtual scavenger hunt on Google Earth would allow students to follow coordinate clues to discover global geography.

EXPLAIN THAT A PROGRAM HAS INPUTS AND OUTPUTS AND GIVE EXAMPLES

- Inputs and outputs
- Talk to me

WITH SUPPORT, UNDERSTAND BINARY DIGITS IN CODE

- Binary Images
- Binary Images with artist

IDENTIFY PATTERNS IN AN ALGORITHM AND UNDERSTAND THE PROCESS OF REPEAT LOOPS

- GoRobot! Detailed lesson plans
- Planting a Seed

RESOURCES CURRENTLY UNAVAILABLE:
UNDERSTAND THAT THERE CAN BE MORE THAN ONE SOLUTION TO A PROBLEM AND BE ABLE TO EVALUATE WHICH ARE BETTER OR WORSE THAN EACH OTHER