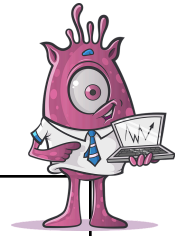


Maui slowed the sun

DIGITAL TECHNOLOGY LESSON PLAN: Computational Thinking

Progress Outcome 1 (Level 1)	Progress Outcome 2 (Level 3)	Progress Outcome 3 (L4)
1. Break down (decomposition) a familiar process into a set of precise and unambiguous instructions. 2. Create a precise, unambiguous, step-by-step process (algorithmic thinking). 3. Test process 4. Identify mistakes and fix the process (debugging). 5. Use a code to represent these instructions in a process.	1. Break down a problem (decomposition) and create a coded process to solve it (output). 2. Give, follow, and fix (debug) step-by-step coded processes (algorithms). 3. Recognise step-by-step processes must be in a specific order (sequencing).	1. Break down a problem and create a process to solve it (algorithms with outputs). 2. Use logical thinking to predict what the process will do. 3. Understand that there can be more than one process to solve the same problem. 4. Look for patterns in the process where looping (iteration) can be applied. 5. Coded processes to include information given (inputs), an end result (outputs), sequence (in order), and iteration (using a loop to repeat part of the algorithm). 6. Understand binary digits.

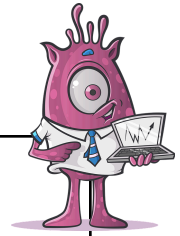
Lesson Name: *Maui and The Sun* *Link:* *Algorithm grid* *Class:* *Junior*

Students will be able to:

- *Translate an algorithm into a program*
- *Decode and run a program created by someone else*
- *Identify and address bugs or errors in sequenced instructions*

❏ ***Learning Skills:*** *Communicate Collaborate Create Critical Think*

Unplugged/ Device: IPad (scratch and seesaw)



Pre learning: Read How Maui slowed the Sun (classroom teacher)

Lesson Sequence:

- *Discuss how we use arrows to show directions.*

Talk about making instructions clear and easy to follow. Give example of making toast- how would you explain this to a robot?

- *Go outside and use grid get the children to view the steps to take while students give verbal directions. Getting children to role play using masks of maui/sun and green cones as flax, ask children which is the best way for Maui to get to the sun collecting the flax along the way.*
- *They can only use 3 directions. L<R<F. Show on mini whiteboards. Discuss repetition (loops) and debugging (fixing mistakes)*

Plugged:

- *Complete grid on seesaw and record instructions to show the language they used for the direction.Activity grid*

Teacher follow up activity: Creating code on a device

- *ScratchJR: Students create a story using scratch jnr. Retell the main parts using dialogue, written language and images.*

Other digital ideas:

- *Create an ebook or video retelling story by drawing the background images and speaking the parts*
- *Create a puppet pal to retell the story*