UNIT TITLE: WHAT THE LADYBIRD HEARD

CURRICULUM LINKS

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<th>Curriculum Area/s: Digital Technologies/Mathematics</th>
<th>Band/Year Level: Prep</th>
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Aspects of the Achievement Standard:
- Design solutions to simple problems using a sequence of steps and decisions.

Content Descriptors:

**Digital Technologies**
- Investigating and defining:
  - Follow, describe and represent a sequence of steps and decisions (algorithms) needed to solve simple problems (ACTDIP004)

**Mathematics**
- Location and Transformation:
  - Describe position and movement (ACMMG010)

**English**
- Examining Literature:
  - Identify some features of texts including events and characters and retell events from a text (ACELT1578)

General Capabilities:

**Critical and Creative Thinking**
- Apply logic and reasoning:
  - Identify the thinking used to solve problems in given situations

LEARNING GOALS

Learners will:
- Know: an algorithm can be used to solve a problem
- Understand: the algorithm needs to be accurate to solve the problem
- Do: create a simple algorithm that solves a simple problem

LEARNING SEQUENCE

Prior knowledge:
Students have had a whole class lesson sequencing the steps of *We’re Going on a Bear Hunt*

Students have practised using the positional and transformational language: start, stop, turn, left, right, forward

Students have drawn arrow symbols to represent direction

Key learning experiences:
1. Students listen to the story *What the Ladybird Heard* by Julia Donaldson
2. Re-visit the book and, as a class, sequence the different farm animals that the robbers pass through. Record this in words and pictures on the board.
   Revisit the term ‘algorithm’ as a sequence of steps to get from one place to another.
3. Place pictures of the locations on a 5 x 6 chalk grid on the floor.
4. Tell students that they to give instructions as to how to get the robbers to the prize cow using the language: start, stop, forward, turn, left and right, and using arrows.

5. Do the first two instructions as a whole class to revisit the previous lesson’s learning.

6. Have students work in groups on their own grid that matches the floor to plot the directions using arrows on the grid.

7. One teacher roam the room to listen to individual and group conversations to assist where necessary. Students who are not confident to work with the other teacher on the floor grid.

Assessment Tasks/Success Criteria:

Students will be able to use positional and transformational language and arrow symbols to correctly sequence the order of events in the story using the grid in small groups.

Differentiation/Adjustments:

Confident groups worked independently, others were given teacher support.

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**RESOURCES**

- *What the Ladybird Heard* by Julia Donaldson

**WHY IS THIS RELEVANT?**

- For students to develop the concept and language to create a simple algorithm