

WEEK 1:

WK1 - ACTIVITY 2: DEBUGGING ALGORITHMS

Name: _____

Date: _____

Objective:

Learn how to debug algorithms by identifying and fixing errors in step-by-step instructions.

Symbols:

Use the following symbols to understand the robot's movements:

 Move Forward

 Turn Left

 Turn Right

Task:

Step 1: Predict (5 Minutes):

- Look at the 3x3 grid provided and predict where the robot will end up following this algorithm:

 Move forward 1 step

 Turn right

 Move forward 1 step

- Mark the robot's predicted path on the grid.
- Discuss your predictions with your partner.

	A	B	C
1			
2			
3			

Step 2: Test and Debug (10 Minutes):

- Act as the robot and follow the steps exactly as written on the "broken" algorithm.
- Compare the robot's final position to your prediction.

3. Identify any errors in the algorithm and write them below:

Error(s):

Step 3: Fix the Algorithm:

Rewrite the algorithm to correct the errors.

Corrected Algorithm:

1.

2.

3.

Optional Challenge:

Create your own 3-step algorithm for the robot to navigate a different path on the grid. Use the symbols to help you.

1.

2.

3.

Reflection:

1. What errors did you find in the original algorithm?

2. Why is debugging important?
