

Predicting Outcomes

Introduction

This lesson introduces the relevant words; **outcome** and **output** through activities that link to student's lives to help them relate to the concepts introduced. This lesson will build upon prior learning relating to algorithms.

Learning Objective	<ul style="list-style-type: none">• To identify algorithms with clear instructions• To demonstrate building algorithms with clear instructions
Keywords	<ul style="list-style-type: none">• Algorithms• Instructions

Setting the Scene

Concept	How it is used
An output can take on many forms depending on the computing system. What is the output on the computer?	When creating a program, it is important to understand what the program is intending to do and how it will output ; seen or heard.

Pattern recognition is a skill that can help locate an error, for example an error in a sequence.

First let us look at what an **output** is.

Activity 1

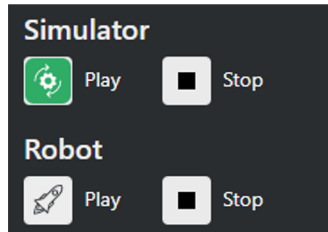
Scenario 1	Scenario 2
You are sitting in front of a computer <ul style="list-style-type: none">- How are you seeing what the computer is showing you?- What helps you hear anything from a computer?	You have been asked to help load the dishwasher. <ul style="list-style-type: none">• What is the outcome of the dishwasher completing its program?

Where else have you seen an output?

Small Group Activity

In your group, you are going to create a paper aeroplane.
Think about the construction and what it is going to look like.

Activity 2 Part 1



What is the output with MiRo?

What will happen when the program is run?

What will happen if the number of seconds is increased or decreased?

What will happen if both blocks had the same direction?

Activity 2 Part 2

Can you predict what the outcome will be from the program you create?

We are going to create a program and you can predict and observe the outcome.

What will happen when the program is run?

What will happen if the setting is changed from 'slow' to 'fastest'?

What will happen if both blocks had the direction 'forwards'?



Using this algorithm as your plan, create and run the program in the MiRoSIM.

Remember there is no fail in computing only debugging, fixing and learning!

Summary Self-Assessment

Question	Got it	Got it with help	Unsure
Can you identify the output for the system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Can you predict the outcome based on the code given?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Can you create a program and predict the output of MiRo?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>