# **Teacher Guide Robotic Explorers**





Levels : Early & First Duration: 30 mins

**Maximum Number of Pupils: 30** 

#### What to Expect

Pupils will be introduced to control technology, directional language and simple coding. Pupils will work in groups to prepare a sequence of instructions for the robots to follow and complete a series of challenges and activities. Pupils will work as a team using programmable floor robots such as bee-bots and code-a-pillars.

#### What is Covered

- Using robots, pupils will problem-solve to navigate various points
- Pupils will plan and then execute a route
- Pupils will measure how many units their robots travel and describe their route using directional language

#### **Curriculum for Excellence links**

We have identified the Curriculum for Excellence experiences and outcomes to which this workshop can most significantly contribute (please see the next page):

#### Early Level TCH 0-01a

I can explore digital technologies and use what I learn to solve problems and share ideas and thoughts.

### Early Level TCH 0-13a

I can explore computational thinking processes involved in a variety of everyday tasks and can identify patterns in objects or information.

#### Early Level TCH 0-14a

I understand that sequences of instructions are used to control computing technology.

#### Early Level TCH 0-15a

I can develop a sequence of instructions and run them using programmable devices or equivalent.

#### Early Level MTH 0-16a

I have experienced the wonder of looking at the vastness of the sky, and can recognise the Sun, Moon and stars and link them to daily patterns of life

#### First Level TCH 1-01a

I can explore and experiment with digital technologies and can use what I learn to support and enhance my learning in different contexts.

#### First Level TCH 1-09a

I can design and construct models and explain my solutions.

#### First Level TCH 1-12a

I explore and discover engineering disciplines and can create solutions.

### First Level TCH 1-13a

I can explore and comment on processes in the world around me making use of core computational thinking concepts and can organise information in a logical way.

## First Level TCH 1-14b

I understand how computers process information.

### First Level MTH 1-17a

I can describe, follow and record routes and journeys using signs, words and angles associated with direction and turning.