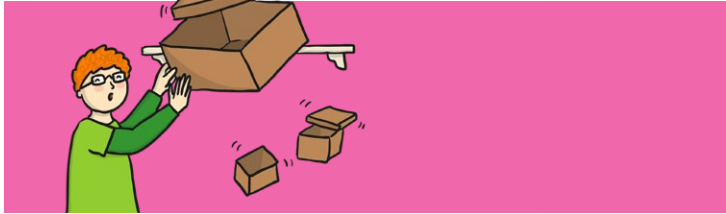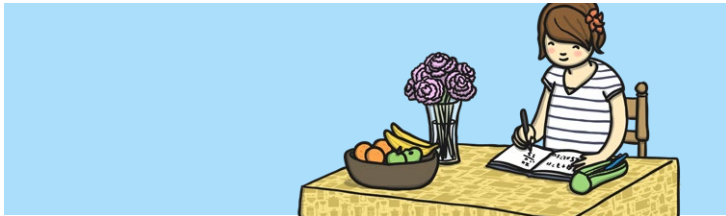# Preparing for Turtle Logo

Introduction

This unit has two main aims, to enable children to create, test and debug algorithms, and preparing children to use the language of Turtle Logo. The children begin by giving and following instructions to move forward and make quarter turns, followed by walking different rectilinear shapes. The language is extended to use the main Turtle Logo commands. Children will create, text and debug algorithms for shapes and routes around school in preparation for using the commands in online programs such as Turtle Logo/Logo Interpreter or MSWLogo.

Health & Safety

Take care with the walking activities, remind children to walk forwards, and watch for cones.

Home Learning

Task 1 Preparing for Turtle Logo 1: Children practice writing algorithms for moving around their home

Task 2 Preparing for Turtle Logo 2: Children practice writing algorithms for moving a small figure on an existing plan or a plan of their home.

Assessment Statements

By the end of this unit…

…all children should be able to:

- Walk forward a number of steps.

…most children will be able to:

- Turn accurately 90° (a quarter turn).
- Walk squares and rectangles.
- Give and follow instructions.

…some children will be able to:

- Write an algorithm for a shape or a route.
- Debug errors in an algorithm.

Lesson Breakdown

1. Moving forward and Making Turns

Understand what algorithms are, and that programs execute by following precise and ambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs. This unit prepares children for using Turtle Logo on screen, but links well to shape and direction in Maths.

- I can give and follow an algorithm to turn right or left.

Resources

- Hall or space large enough for children to move around freely.
- Cones or similar to mark points.
- Small whiteboards and pens.

2. Half and Quarter Turns

Understand what algorithms are, and that programs execute by following precise and ambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.

- I can give and follow an algorithm to make half and quarter turns.

Resources

- Hall or space large enough for children to move around freely.
- Cones or similar to mark points.
- Small whiteboards and pens.

3. Right 90 and Left 90

Understand what algorithms are, and that programs execute by following precise and ambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.

- I can give and follow an algorithm using the commands right 90 and left 90.

Resources

- Hall or space large enough for children to move around freely.
- Cones or similar to mark points.
- Small whiteboards and pens.

4. Completing Algorithms

Understand what algorithms are, and that programs execute by following precise and ambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.

- I can give, follow and complete an algorithm.

Resources

- Hall or space large enough for children to move around freely.
- Cones or similar to mark points.
- Small whiteboards and pens.

5. Command Abbreviations

Understand what algorithms are, and that programs execute by following precise and ambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.

- I can use recognised language in an algorithm.

Resources

- Hall or space large enough for children to move around freely.
- Cones or similar to mark points.
- Small whiteboards and pens.

6. From Here to There

Understand what algorithms are, and that programs execute by following precise and ambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.

- I can create, test and debug an algorithm.

Resources

- Routes that the children can use to walk along.
- Small whiteboards and pens.
- Small figures (human or animal) and counters.