











Preparing for Turtle Logo: Command Abbreviations

<p>Aim: 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.</p> <p>This unit prepares children for using Turtle Logo on screen, but links well to shape and direction in Maths.</p> <p>I can use recognised language in an algorithm.</p>	<p>Success Criteria: I can give clear accurate instructions. I can give instructions in order. I can write an algorithm. I can check an algorithm. I can use command abbreviations fd, rt, lt from Turtle Logo.</p>	<p>Resources: Lesson Pack. Hall or space large enough for children to move around freely. Cones or similar to mark points. Small whiteboards and pens.</p>
	<p>Key/New Words: Forward, Backward, Left, Right, Move, Turn, Right 90, Left 90, fd, rt, lt.</p>	<p>Preparation: None needed.</p>

Prior Learning:

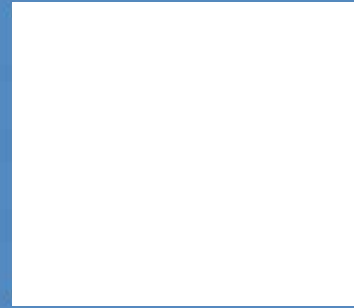
Learning Sequence

	<p>Can you? Ask the children to walk a rectilinear letter, for example L, T, F. Some children may need cones to mark the corners of their shape to help remember it.</p>	
	<p>Using Turtle Logo Language: Use the slides to demonstrate the command shortcuts fd, rt and lt.</p>	
	<p>What shape would this be? Children predict and test an algorithm from the Lesson Presentation.</p>	
	<p>Write Your Own Algorithms: Children walk squares, rectangles and rectilinear letters, recording their algorithms as they go using the shortcut commands. Remind them that they need to use accurate 90° turns and keep their steps the same size.</p>	
	<p>Share: Children demonstrate their algorithms to the rest of the class.</p> <ul style="list-style-type: none"> • Have you used the command abbreviations fd, lt, rt? • Have you walked the same size steps? • Have you turned 90° accurately? • Does the algorithm work? • If it doesn't can we debug it? 	

Taskit

Letterit: Children create algorithms for rectilinear letters and ask friends to text them. Debug any mistakes.

Challengeit: Use the **Challenge Cards** for extension activities.



Computing

Preparing for Turtle Logo

Command Abbreviations

fd

lt

rt

Aim

- I can use recognised language in an algorithm.

Success Criteria

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Can you?

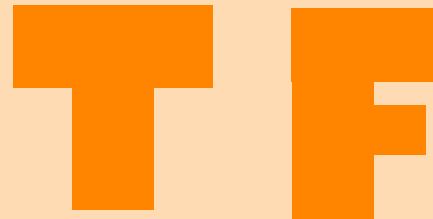


Can you walk the letter L?



What commands do you need?

Can you walk a letter T or F?



Use a cone as a starting point to mark the corners of the shape.



Using Turtle Logo Language

It is important that we use language that is understood by whoever or whatever is following the instructions.

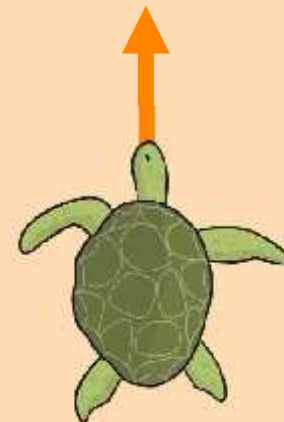


Sometimes commands can be abbreviated.

Moving Forward

We can shorten forward to `fd`

Forward becomes `fd 5`



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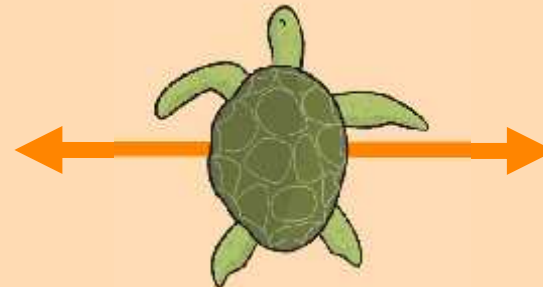


Sometimes commands can be abbreviated.

Turning

We can shorten left or right to lt or rt

Left can be written as lt 90
Right can be written as rt 90



What shape would this be?



fd 8

lt 90

fd 8

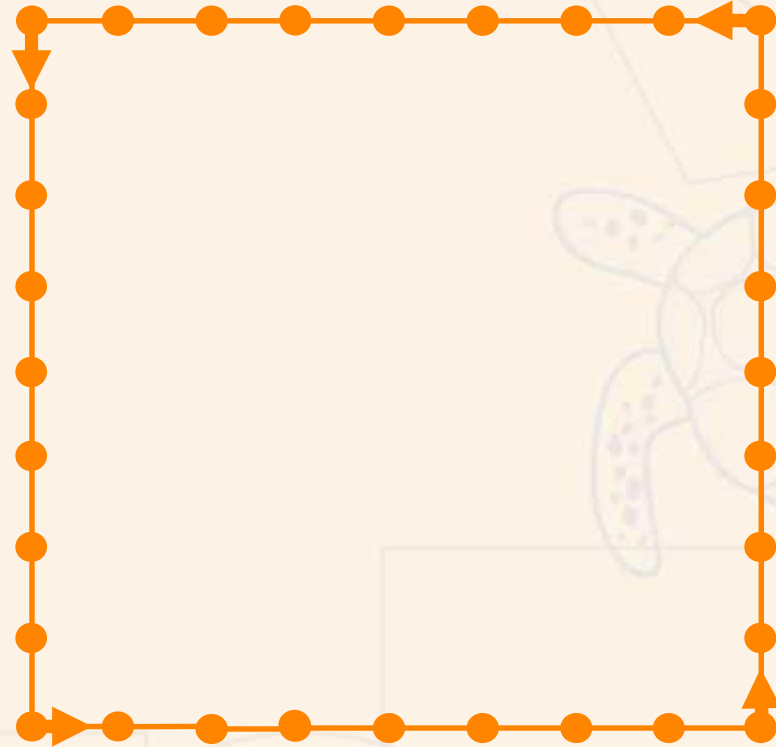
lt 90

fd 8

lt 90

fd 8

lt 90



What shape would this be?



fd 10

rt 90

fd 5

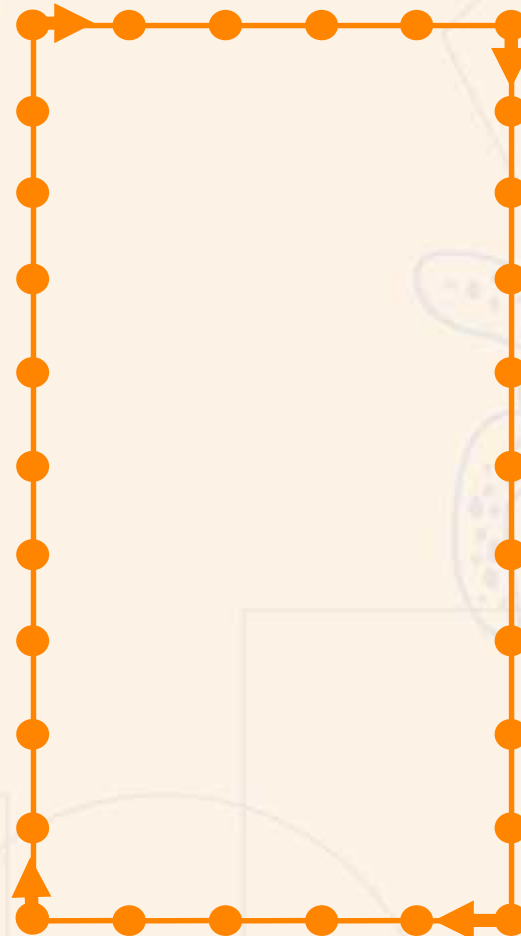
rt 90

fd 10

rt 90

fd 5

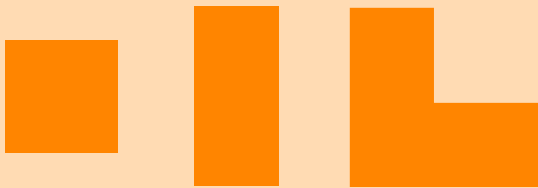
rt 90



Write Your Own Algorithms



Walk some squares,
rectangles and rectilinear
letters.



Record your algorithms
using the short commands:
fd, lt or rt.

Remember what
your turns need to
be.

lt 90

rt 90

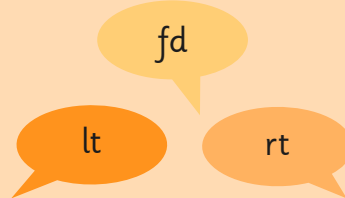
Share



Let's share some of our algorithms.



Have you used the command abbreviations?



Have you walked the same size steps?



Have you turned 90° accurately?



Does the algorithm work?



If it doesn't work can we debug it?



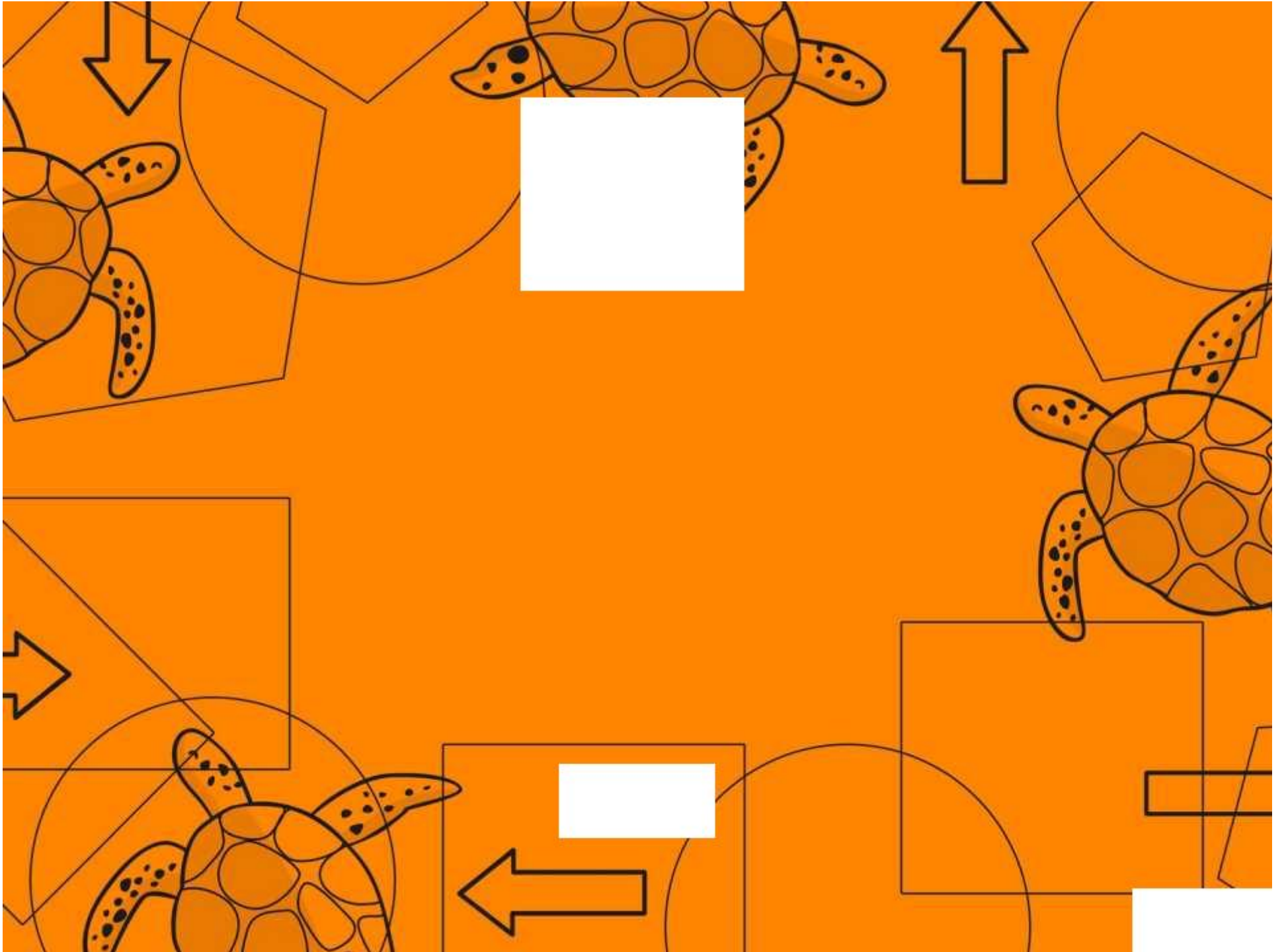
Aim



- I can use recognised language in an algorithm.

Success Criteria

- I can give clear accurate instructions.
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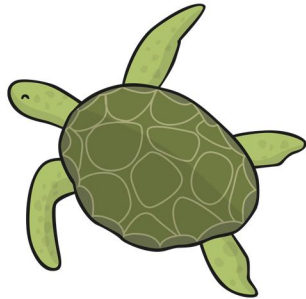
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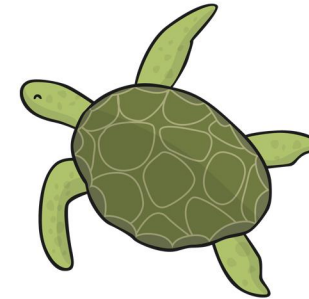
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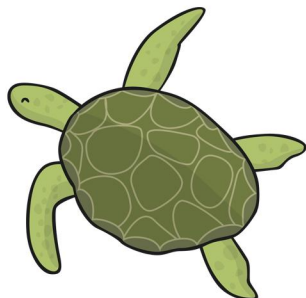
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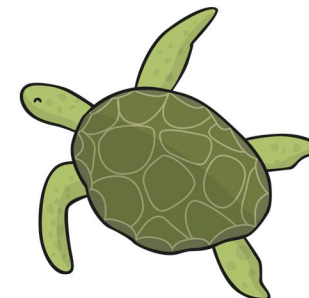
Preparing for Turtle Logo

Command Abbreviations



Preparing for Turtle Logo

Command Abbreviations



Write an algorithm for walking a square using the command abbreviations fd, lt and rt.



Give it to a friend to test.

Debug the algorithm if required.

Write an algorithm for walking a rectangle using the command abbreviations fd, lt and rt.



Give it to a friend to test.

Debug the algorithm if required.

Write an algorithm for walking a rectilinear L shape using the command abbreviations fd, lt and rt.



Give it to a friend to test.

Debug the algorithm if required.

Write an algorithm for walking a rectilinear T shape using the command abbreviations fd, lt and rt.



Give it to a friend to test.

Debug the algorithm if required.

Preparing for Turtle Logo



I can use the short
cut command `fd`.

Preparing for Turtle Logo



I can use the shortcut
commands `rt` and `lt`.

Preparing for Turtle Logo



I can use the short
cut command `fd`.

Preparing for Turtle Logo



I can use the
shortcut commands
rt and lt.

Preparing for Turtle Logo



**I can use the short cut
command `fd`.**

Preparing for Turtle Logo



**I can use the shortcut
commands `rt` and `lt`.**