

Christmas Coding



National Curriculum Objectives:

Computing KS2: [Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts](#)

Computing KS2: [Use sequence, selection, and repetition in programs; work with variables and various forms of input and output](#)

Computing KS2: [Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs](#)

About this resource:

This resource has been designed for pupils to explore coding. They begin with following the codes that are already set but as they become more confident with this, they can explore ways of creating their own sequences of code to make the character move from one destination to another.

More [Christmas](#) resources.

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Christmas Coding

Father Christmas needs some help moving around the North Pole. He has to walk around the walls to collect the objects.

He can complete the actions below in any order and in any combination. He can also repeat a set of instructions more than once by using the repeat action and filling in the number of times the action needs to be repeated:

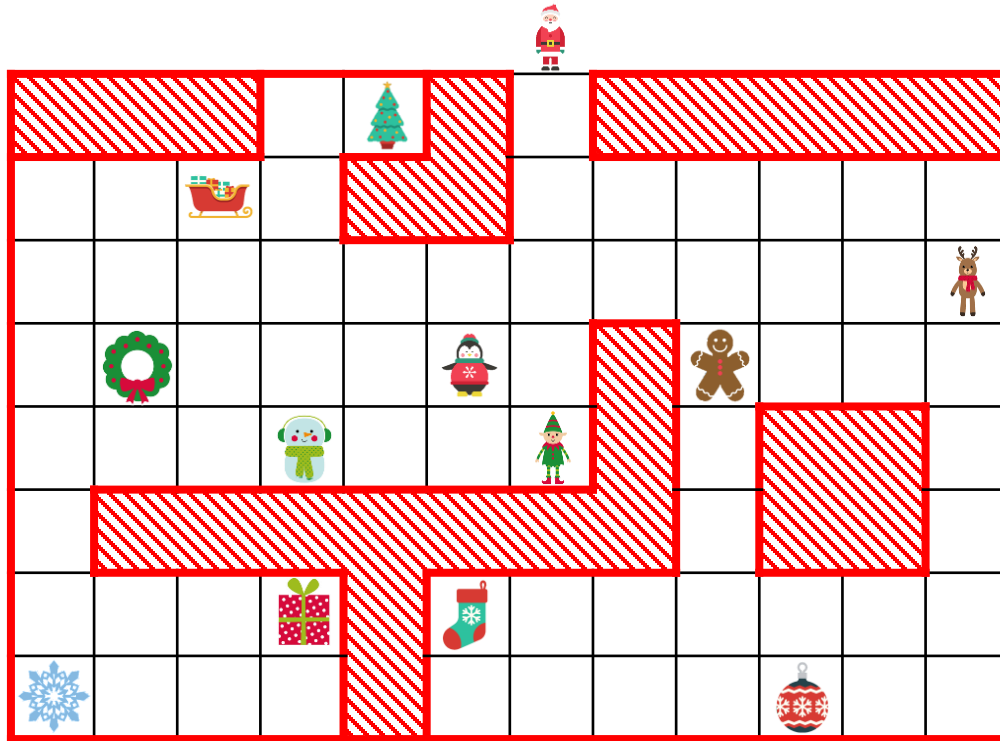
move forward

turn left

turn right

repeat ___ times

pick up object



Follow the codes below to find out which objects Father Christmas picks up.

move forward
 move forward
 move forward
 turn right
 move forward
 move forward
 move forward
 move forward
 turn right
 move forward
 pick up object

Object: _____

move forward
 move forward
 turn left
 move forward
 move forward
 turn right
 move forward
 move forward
 pick up object

Object: _____

move forward
 move forward
 move forward
 turn right
 repeat 2 times
 move forward
 move forward
 turn right
 move forward
 pick up object

Object: _____

move forward
 move forward
 move forward
 turn right
 move forward
 repeat 6 times
 turn left
 move forward
 repeat 4 times
 turn left
 move forward
 repeat 3 times
 pick up object

Object: _____

Create your own codes for Father Christmas to pick up other objects.

Create your own codes for Father Christmas to pick up more than one object in a row.

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Father Christmas needs some help moving around the North Pole. He has to walk around the walls to collect the objects.

He can complete the actions below in any order and in any combination. He can also repeat a set of instructions more than once by using the repeat action and filling in the number of times the action needs to be repeated:

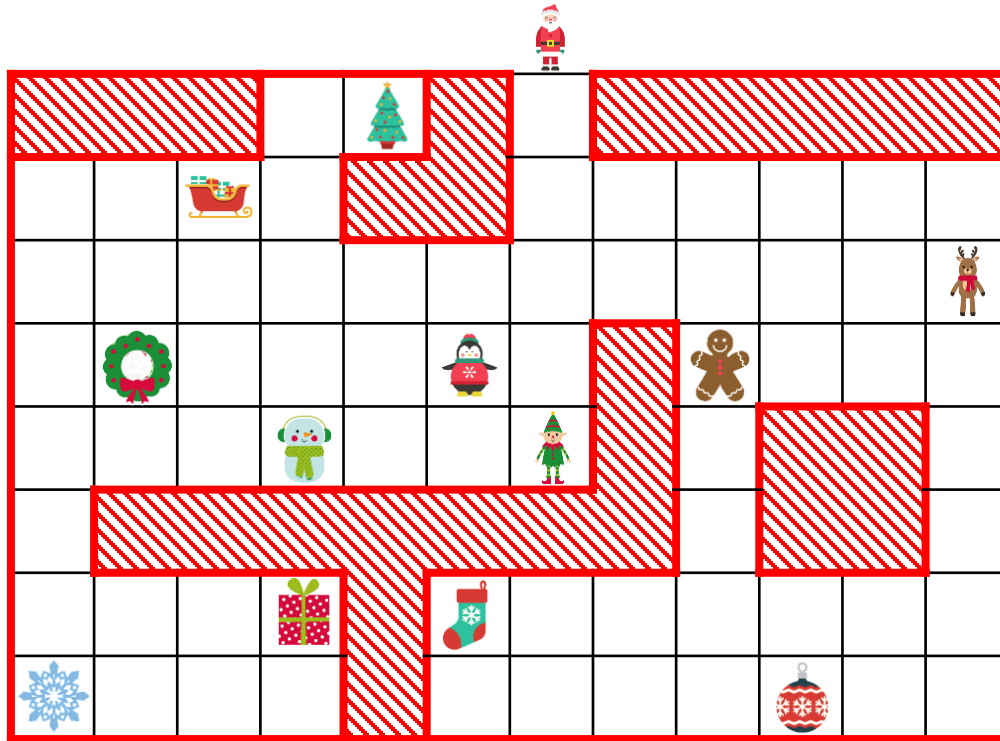
move forward

turn left

turn right

repeat ___ times

pick up object



Follow the codes below to find out which objects Father Christmas picks up.

move forward
 move forward
 move forward
 turn right
 move forward
 move forward
 move forward
 move forward
 turn right
 move forward
 pick up object

Object **Sleigh**

move forward
 move forward
 turn left
 move forward
 move forward
 turn right
 move forward
 move forward
 pick up object

Object: **Gingerbread Man**

move forward
 move forward
 move forward
 turn right
 repeat 2 times
 move forward
 move forward
 turn right
 move forward
 pick up object

Object: **Christmas Tree**

move forward
 move forward
 move forward
 turn right
 move forward
 repeat 6 times
 turn left
 move forward
 repeat 4 times
 turn left
 move forward
 repeat 3 times
 pick up object

Object: **Present**

Create your own codes for Father Christmas to pick up other objects.

Create your own codes for Father Christmas to pick up more than one object in a row.