

Teachers guide - Scratch

# Introduction to Algorithms

Code Playground



```
int x=10
for(int a=0; a<x; a++)
{
  if(a==x) // check for c
    break; // exit loop
}
```



# Introduction to Algorithms

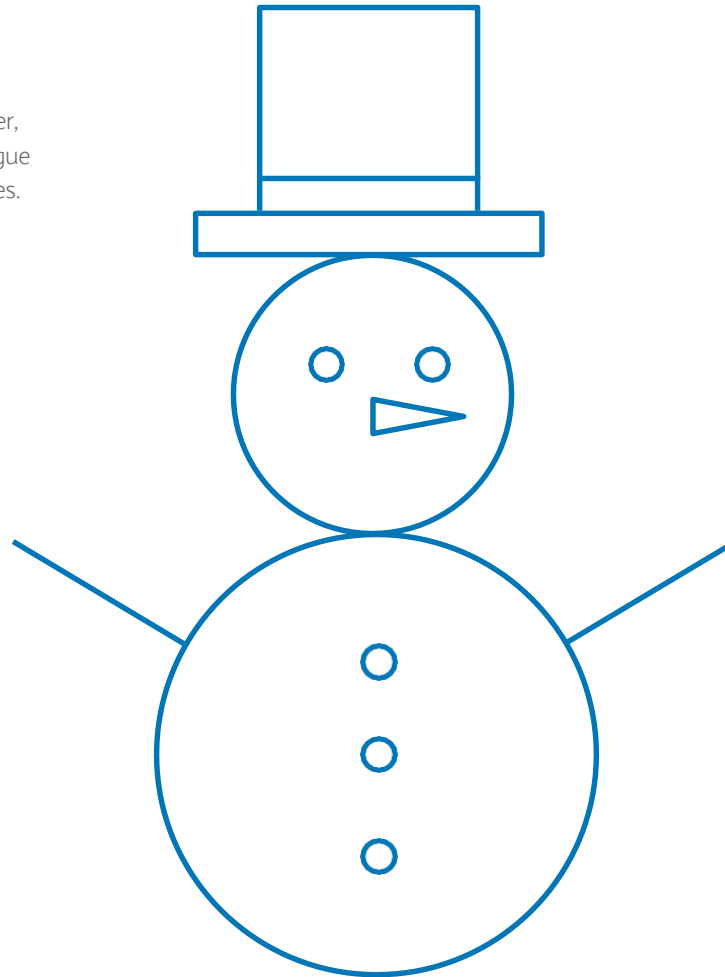
## Scratch project

Use the examples below for the drawing activity. Remember, the first time around you should keep your instructions vague so that the children end up with a range of different pictures. Be more specific the second time around.

Use statements like:

- Draw a circle with three circles inside it
- Add another circle on top
- Draw a thin rectangle on top of the top circle
- Draw a triangle inside the top circle

And so on...

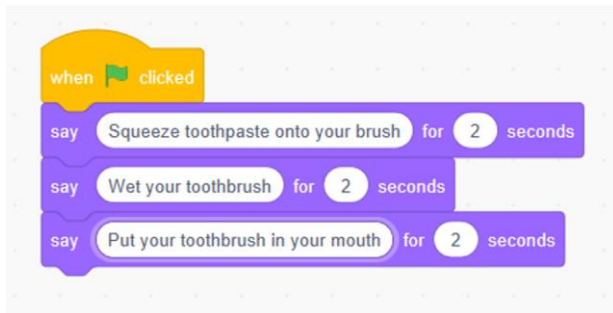


# Introduction to Algorithms

## Scratch project

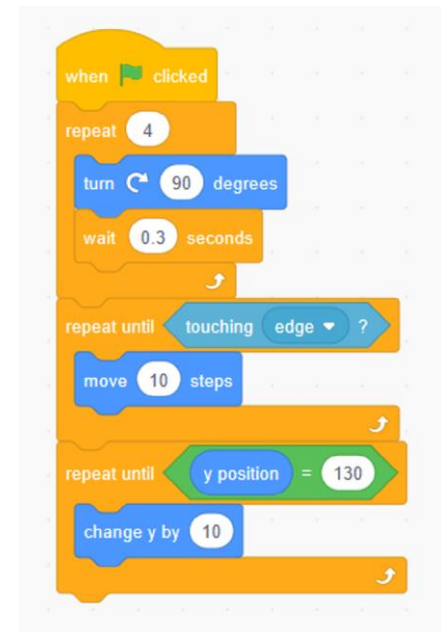
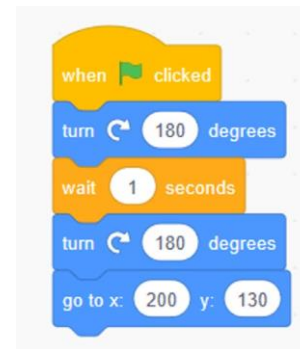
Almost any sequence of code which results in an output on the stage screen can be described as an algorithm.

A very basic example might be to code your sprite to give its very own set of instructions – or an algorithm – using the ‘say’ blocks.



More able pupils should be encouraged to create an algorithm that contains a sequence of a variety of blocks. It can be helpful to think of a ‘problem’ that needs to be solved. For example, your sprite needs to turn in a circle and walk to the top right hand corner of the screen. Remember, be specific!

Both of the below examples ‘solve’ our problem, with differing levels of complexity and specificity.



# Notes

## Code Playground

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