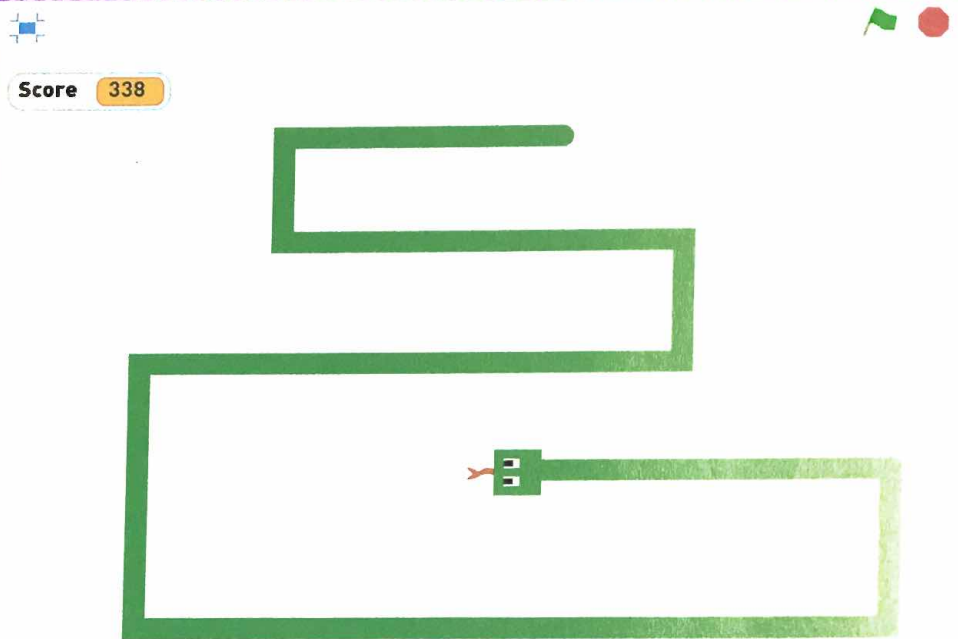
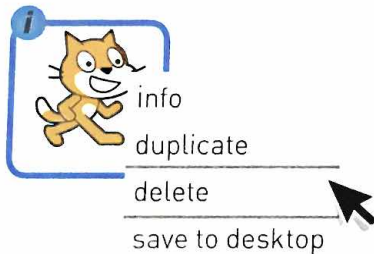


# SNAKE

The aim of this game is to stop a slithering snake from bumping into itself. To move the snake sprite up, down, left, and right, we use the same ideas as in *Amazing Maze* (page 16). To make the snake's body grow longer and longer, we draw a line on the Stage as it moves around. We then add some code to make sure the snake hasn't hit this line.



**1** Start a new Scratch file, then delete the cat sprite.



**2** To draw the snake's head, start by clicking the **Paint new sprite** button in the Sprites Pane.



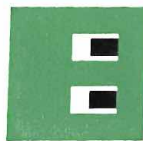
Choose the **Rectangle** tool. At the bottom of the screen, click the shaded rectangle. Choose green.



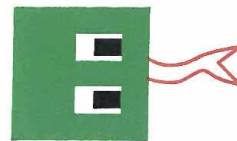
**3** Draw the head.



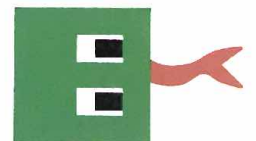
Make a big square about half the height of the Drawing Area. Make sure it is in the center.



Use white and black rectangles for the snake's eyes.



Use the **Brush** to draw a tongue in red.



**Fill** the tongue with red.

To make more a snake use the same method!



The snake will be drawing a green line—its body—as it moves. In step 4, we will check to see if its red tongue touches this green line.

4

Click the **Scripts** tab and add this code to the snake sprite.



Make sure you add code for each of the four directions.

when up arrow key pressed

point in direction 0

Run this code while the Up arrow is pressed:

Point up (0 degrees).

when left arrow key pressed

point in direction 90

when right arrow key pressed

point in direction 90



Now test your code.

when down arrow key pressed

point in direction 180

5

In the **Data** group, make a variable called **Score**. Add all this code to the snake sprite. To set the colors of the **Set pen color** blocks, click in the correct hole in the block, then on either the snake's head or the snake's tongue on the Stage.



when green flag clicked

Run code when the green flag is clicked.

set Score to 0

Set the score to 0 at the start of the game.

hide

Hide the snake so it won't draw a line and we won't see it.

set size to 10 %

Shrink the snake's head to 10% of its size.

go to x: 0 y: 111

Start the snake at the top middle of the Stage.

clear

Clear the Stage (it will have parts of the snake's body from the previous game).

set instrument to 16

Choose the vibraphone for our tunes.

repeat 3

Repeat these notes three times:

play note 60 for 0.25 beats

Play a C for 1/4 of a beat.

play note 64 for 0.1 beats

Play an E for 1/10 of a beat.

show

Show the snake's head.

pen down

Put the pen down so it will draw the body on the Stage as the snake's head moves around.

set pen color to

Draw the body in green.

set pen size to 12

Make the green line 12 steps (pixels) wide.

point in direction 90

Point the snake's head left to start.

repeat until color is touching ? or touching edge ?

Keep repeating this code until either red (the tongue) touches green (the body) OR the snake touches the edge of the Stage:

move 4 steps

Move the snake's head.

change Score by 1

Increase the score.

repeat 3

If the snake bumps, repeat these notes 3 times:

play note 48 for 0.25 beats

Play a low C for 1/4 of a beat.

play note 36 for 0.1 beats

Play a low E for 1/10 of a beat.

say join You scored: Score for 5 secs

Show a sentence joining "You scored:" and the Score variable.



Now test your code.