

## **Scratch Challenges**

### **Tiling**

Make a diamond-shaped sprite with a pattern on it.

Can you write some code to make it tile the screen? What about if you rotate it while you are doing the tiling?

What about different shaped sprites such as triangles or hexagons?

### **Spirals**

Can you make the computer draw a spiral as you move your mouse?

What about changing the colour of the spiral as you draw it? Can you make it possible to draw new spirals on top of the older ones? Can you add a way to clear the screen? Can you add some randomness to make the spirals more interesting?

### **Bounce Painting**

Can you make two balls move around the stage bouncing off the edges setting off with a random speed and direction each time they hit an edge?

Now can you add a forever loop drawing a line between the two balls but changing the colour slightly each time? Add some code to stop the drawing after either a certain amount of time or when the mouse is clicked.