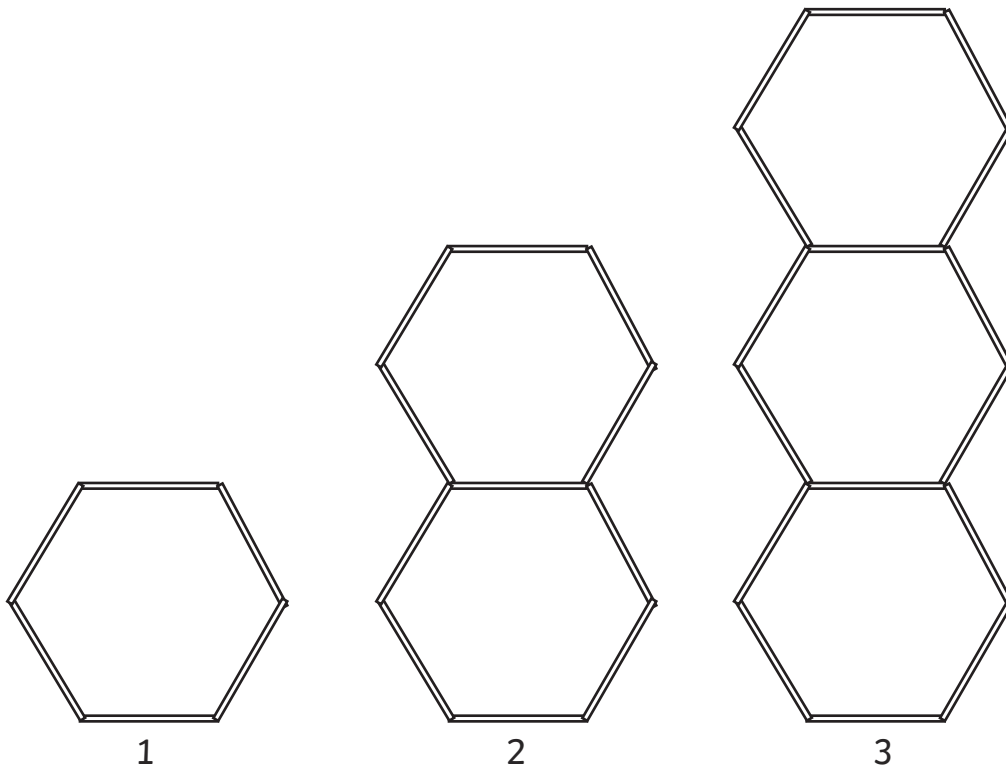


# Hexagons

Use matchsticks to make these patterns:



Make the next 2 patterns in the sequence.

Complete this table. Predict and test the number of sticks for 8 and 10 hexagons, then predict the number of sticks for 12 and 20 hexagons.

Number of hexagons	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>8</b>	<b>10</b>	<b>12</b>	<b>20</b>
Number of sticks									

## Challenge (Year 6)

Can you write an algebraic expression for the number of sticks for  $n$  hexagons?

# Answers

Number of hexagons	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>8</b>	<b>10</b>	<b>12</b>	<b>20</b>
Number of sticks	6	11	16	21	26	41	51	61	101

## Challenge (Year 6)

Number of sticks =  $5n + 1$