Homework/Extension
Step 4: Making Patterns with Shapes

National Curriculum Objectives:

Mathematics Year 2: (2P2) Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise)

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)
Developing Predict the next shape in a pattern of repeating shapes using half turns without missing turns.
Expected Predict a shape in a pattern of repeating shapes using quarter turns clockwise, missing one turn.
Greater Depth Predict a shape in a pattern of shapes using three quarter turns clockwise, or one quarter turn anticlockwise, missing two turns.

Questions 2, 5 and 8 (Varied Fluency)
Developing Match the rules to the correct pattern of shapes, quarter and half turns, clockwise and anticlockwise.
Expected Match the rules to the correct pattern of shapes, quarter, half and three quarter turns, clockwise and anticlockwise.
Greater Depth Match the rules to the correct pattern of shapes, quarter, half, three quarter and whole turns, clockwise and anticlockwise.

Questions 3, 6 and 9 (Reasoning and Problem Solving)
Developing Explain whose pattern is completed correctly. Pattern contains up to two different shapes using quarter and half turns and clockwise or anti-clockwise.
Expected Explain whose pattern is completed correctly. Pattern contains up to two different shapes using quarter, half, three-quarter and whole turns and clockwise or anti clockwise.
Greater Depth Explain whose pattern is completed correctly. Pattern contains up to three different shapes using quarter, half, three-quarter and whole turns and clockwise or anti-clockwise.

More Year 2 Position and Direction resources.

Did you like this resource? Don't forget to review it on our website.

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Making Patterns with Shapes

1. True or false? The next picture in this pattern would be:
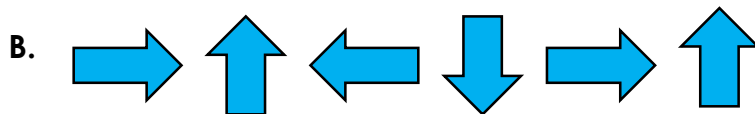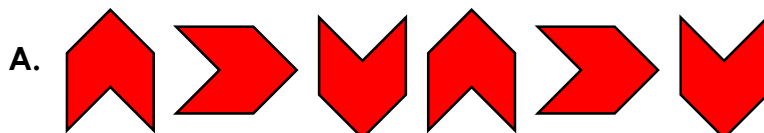

D

VF
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2. Match the pattern with its rule.

Half turn

Quarter turn clockwise

Quarter turn anti-clockwise

A.

B.

C.

D

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3. Who has described their pattern correctly? Explain how you know.

Max

My pattern is that the heart makes a half turn each time.

Lucy

My pattern is that the heart and the triangle make a half turn each time.

D

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Homework/Extension – Making Patterns with Shapes – Year 2 Developing

Making Patterns with Shapes

4. True or false? The 7th picture in this pattern would be:
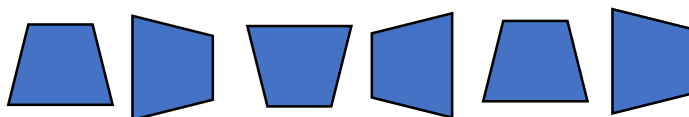
VF
HW/Ext

5. Match the pattern with its rule.
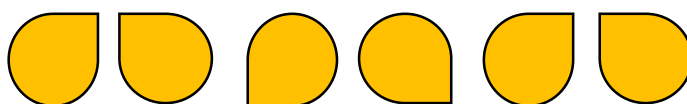
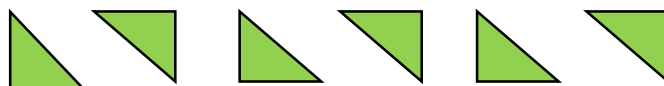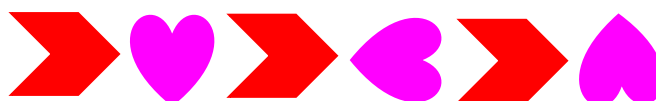| Three quarter turn clockwise |
| Quarter turn clockwise |
| Half turn anti-clockwise |

A.

B.

C.

VF
HW/Ext

6. Who has described their pattern correctly? Explain how you know.

Zak: My pattern is that the heart makes a quarter turn clockwise each time.

Polly: My pattern is that the heart and the triangle make a quarter turn clockwise each time.

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Homework/Extension – Making Patterns with Shapes – Year 2 Expected
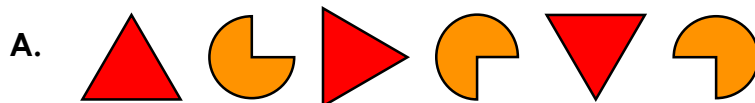
Making Patterns with Shapes

7. True or false? The 8th picture in this pattern would be:

VF
HW/Ext

8. Match the pattern with its rule.

| Both shapes make a whole turn clockwise |

| Both shapes make a three quarter turn anticlockwise |

| Both shapes make a quarter turn anticlockwise |

A.

B.

C.

VF
HW/Ext

9. Who has described their pattern correctly? Explain how you know.

Sam

My pattern is that all the shapes make a half turn each time.

Lydia

My pattern is that all the shapes make a three quarter turn clockwise each time.

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Homework/Extension – Making Patterns with Shapes – Year 2 Greater Depth

Developing

1. **True**
2. **A = quarter turn clockwise; B = quarter turn anticlockwise; C = half turn**
3. **Max is correct. Lucy is incorrect as only the heart makes a half turn.**

Expected

4. **False, it should be**
5. **A = quarter turn clockwise; B = three quarter turn clockwise; C = half turn anti-clockwise**
6. **Zak is correct. Polly is incorrect as the heart and triangle make a quarter turn anticlockwise.**

Greater Depth

7. **False, it should be**
8. **A = three quarter turn anticlockwise; B = a quarter turn anticlockwise; C = whole turn clockwise**
9. **Sam is correct. Lydia is incorrect as the shapes make a three quarter turn anticlockwise.**

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