Varied Fluency
Step 2: Introduce Angles

National Curriculum Objectives:

Mathematics Year 6: (6G3a) Draw 2-D shapes using given dimensions and angles
Mathematics Year 6: (6G2a) Compare and classify geometric shapes based on their properties and sizes
Mathematics Year 6: (6G4a) Find unknown angles in any triangles, quadrilaterals and regular polygons
Mathematics Year 6: (6G4b) Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles

Differentiation:

Developing Questions to support introducing right angles and angles on a straight line by making links to quarter and half turns.
Expected Questions to support introducing right angles, angles on a straight line, and angles around a point, by making links to quarter, half, and three-quarter turns.
Greater Depth Questions to support introducing angles in shapes and comparing types of angles by making links to quarter, half, and three-quarter turns.

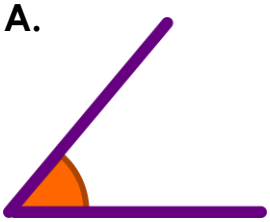
More Year 6 Properties of Shapes resources.

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

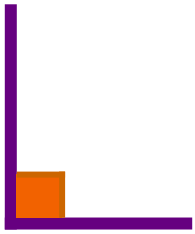
Introduce Angles

1a. Which of the following shows a right angle?

A.



B.



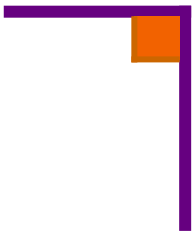
D

VF

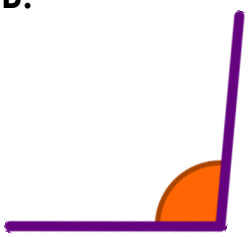
Introduce Angles

1b. Which of the following shows a quarter turn?

A.



B.



D

VF

2a. Complete this table.

Angle	Degrees	Amount of Turn
Right angle		Quarter turn
Straight line	180˚	Half turn

D

VF

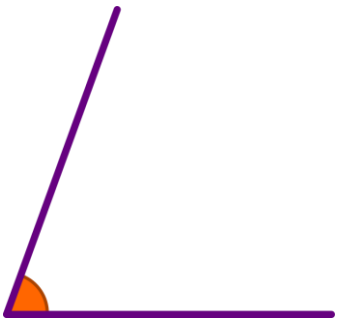
2b. Complete this table.

Angle	Degrees	Amount of Turn
Straight line	180˚	
Right angle	90˚	Quarter turn

D

VF

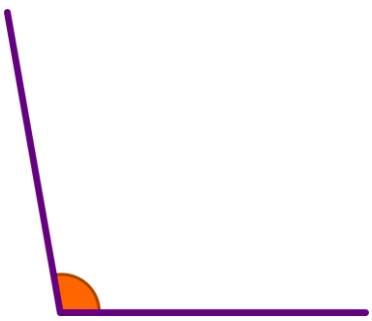
3a. True or false?
This angle is approximately 70˚.



D

VF

3b. True or false?
This angle is approximately 90˚.



D

VF

4a. If you are standing facing west and make one half turn clockwise, which direction will you be facing?

D

VF

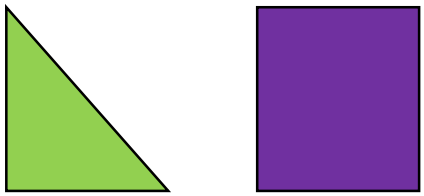
4b. If you are standing facing East and make one quarter turn anticlockwise, which direction will you be facing?

D

VF

Introduce Angles

5a. How many right angles in these shapes?



VF

6a. Complete this table.

Angle	Degrees	Amount of Turn
Right angle	90°	
Straight line		Half turn
Three right angles	270°	Three-quarter turn

VF

7a. True or false?
This angle is approximately 140°.

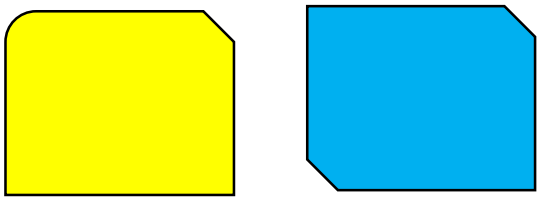
VF

8a. If you are standing facing west and turn 180°clockwise, which direction will you be facing?

VF

Introduce Angles

5b. How many 90° angles in these shapes?



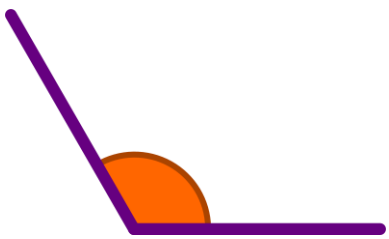
VF

6b. Complete this table.

Angle	Degrees	Amount of Turn
Three right angles	270°	
Straight line	180°	Half turn
Right angle		Quarter turn

VF

7b. True or false?
This angle is approximately 120°.



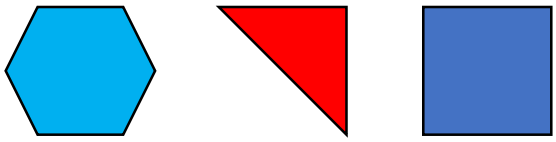
VF

8b. If you are standing facing south and turn 270°clockwise, which direction will you be facing?

VF

Introduce Angles

9a. How many right angles in these shapes?



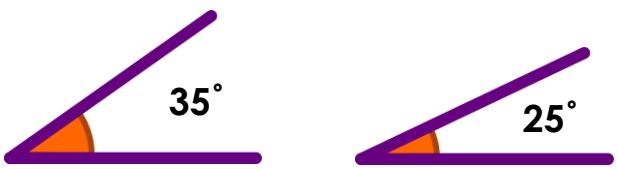
GD VF

10a. Complete this table.

Angle	Degrees	Amount of Turn
Right angle		
	180°	
		Three-quarter turn

GD VF

11a. If you added the degrees both these angles together would the total be more or less than the degrees in a right angle?



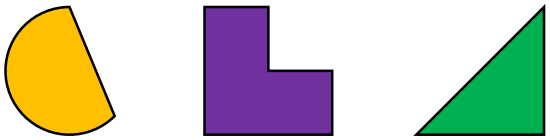
GD VF

12a. If you are standing facing southwest and turn 270° counter clockwise, which direction will you be facing?

GD VF

Introduce Angles

9b. How many 90° angles in these shapes?



GD VF

10b. Complete this table.

Angle	Degrees	Amount of Turn
	270°	
Straight line		
		Quarter turn

GD VF

11b. If you added the degrees both these angles together would the total be more or less than the degrees in a right angle?

GD VF

12b. If you are standing facing northeast and turn 180°counter clockwise, which direction will you be facing?

GD VF

Varied Fluency
Introduce Angles

Developing
1a. B
2a. 90°
3a. True.
4a. East

Expected
5a. 5
6a. Quarter turn; 180°
7a. False. It is approximately 165°
8a. East

Greater Depth
9a. 5
10a. 90°; quarter turn
Straight line; half turn
Three right angles; 270°
11a. Less (35° + 25° = 60°)
12a. North west

Varied Fluency
Introduce Angles

Developing
1b. A
2b. Half turn
3b. False. It is approximately 100°.
4b. North

Expected
5b. 4
6b. Three-quarter turn; 90°
7b. True.
8b. East

Greater Depth
9b. 6
10b. Three right angles; three-quarter turn
180°; half turn
Right angle; 90°
11b. More (40° + 65° = 105°)
12b. South west