Varied Fluency
Step 3: Count Vertices on 2D Shapes

National Curriculum Objectives:

Mathematics Year 2: (2G2a) Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line

Differentiation:

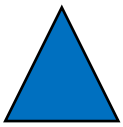
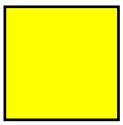
Developing Questions to support identifying vertices on 2D shapes in regular 2D shapes.
Expected Questions to support identifying vertices on 2D shapes in regular and some irregular 2D shapes.
Greater Depth Questions to support identifying vertices on 2D shapes in regular and irregular 2D shapes.

More Year 2 Properties of Shape resources.

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

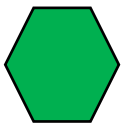
Varied Fluency – Count Vertices on 2D Shapes

1a. Fill in the table.

Shape	Number of sides	Number of Vertices
		5
		
		

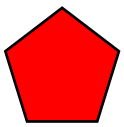
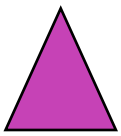
D VF

1b. Fill in the table.

Shape	Number of sides	Number of Vertices
		
		
	7	

D VF

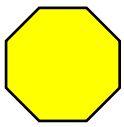
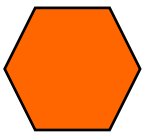
2a. Match the shapes to the correct number of vertices. Which is the odd one out?

a  b  c 

5 vertices | 4 vertices

D VF

2b. Match the shapes to the correct number of vertices. Which is the odd one out?

a  b  c 

4 vertices | 8 vertices

D VF

3a. True or false?

Squares and rectangles have the same amount of vertices.

Steph

D VF

3b. True or false?

A rectangle has more vertices than a triangle.

Sinead

D VF

4a. Name the shape.

I have twice as many vertices as a triangle.

D VF

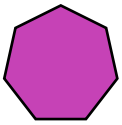
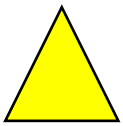
4b. Name the shape.

I have three less vertices than a octagon.

D VF

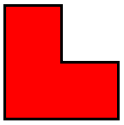
Varied Fluency – Count Vertices on 2D Shapes

5a. Fill in the table.

Shape	Number of sides	Number of Vertices
		
	5	
		

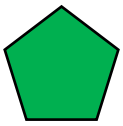
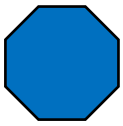
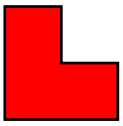
VF

5b. Fill in the table.

Shape	Number of sides	Number of Vertices
		
	6	
		8

VF

6a. Match the shapes to the correct number of vertices. Which is the odd one out?

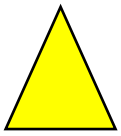
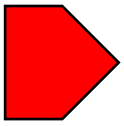
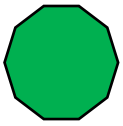
a  b  c 

5 vertices

6 vertices

VF

6b. Match the shapes to the correct number of vertices. Which is the odd one out?

a  b  c 

3 vertices

10 vertices

VF

7a. True or false?

A hexagon has double the amount of vertices as a square.

Sean

VF

7b. True or false?

The sum of vertices on 2 triangles is the same as on a hexagon.

Gabriel

VF

8a. Name the shape.

I have double the amount of vertices as a rectangle.

VF

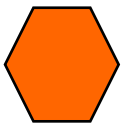
8b. Name the shape.

I have the same amount of vertices as a triangle less than an octagon.

VF

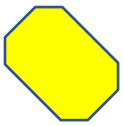
Varied Fluency – Count Vertices on 2D Shapes

9a. Fill in the table.

Shape	Number of sides	Number of Vertices
		
	8	
		

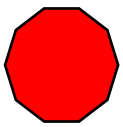
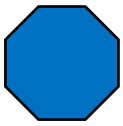
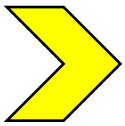
GD VF

9b. Fill in the table.

Shape	Number of sides	Number of Vertices
		
		
		9

GD VF

10a. Match the shapes to the correct number of vertices. Which is the odd one out?

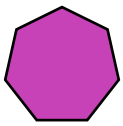
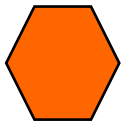
a  b  c 

8 vertices

6 vertices

GD VF

10b. Match the shapes to the correct number of vertices. Which is the odd one out?

a  b  c 

10 vertices

7 vertices

GD VF

11a. True or false?

A nonagon has double the amount of vertices as a pentagon.

Kelly

GD VF

11b. True or false?

The sum of the vertices on a triangle and a heptagon is 10.

Alice

GD VF

12a. Name the shape.

I have triple the amount of vertices as a triangle.

GD VF

12b. Name the shape.

I have half the amount of vertices as a decagon.

GD VF

Varied Fluency – Making Equal Groups

Developing

1a. Pentagon: 5 sides, 5 vertices. Triangle: 3 sides, 3 vertices. Square: 4 sides, 4 vertices.
1b. Hexagon: 6 sides, 6 vertices. Rectangle: 4 sides, 4 vertices. Heptagon: 7 sides, 7 vertices.
2a. a has 4 vertices, b has 5 vertices, c is the odd one out.
2b. a has 8 vertices, b has 4 vertices, c is the odd one out.
3a. True
3b. True
4a. Hexagon
4b. Pentagon

Expected

5a. Heptagon: 7 sides, 7 vertices. Pentagon: 5 sides, 5 vertices. Triangle: 3 sides, 3 vertices.
5b. Rectangle: 4 sides, 4 vertices. Irregular hexagon: 6 sides, 6 vertices. Octagon: 8 sides, 8 vertices.
6a. a has 5 vertices, c has 6 vertices, b is the odd one out.
6b. a has 3 vertices, c has 10 vertices, b is the odd one out.
7a. False
7b. True
8a. Octagon
8b. Pentagon

Greater Depth

9a. Irregular pentagon: 5 sides, 5 vertices. Octagon: 8 sides, 8vertices. Hexagon:6 sides, 6 vertices.
9b. Irregular hexagon: 6 sides, 6 vertices. Irregular octagon: 8 sides, 8 vertices. Nonagon: 9 sides, 9 vertices.
10a. b has 8 vertices, c has 6 vertices, a is the odd one out.
10b. a has 7 vertices, c has 10 vertices, b is the odd one out.
11a. False
11b. True
12a. Nonagon
12b. Pentagon