## Geometry - Count Vertices on 2D Shapes

Children understand that a vertex is where two lines meet at a point. They learn to count the number of vertices each shape has. They match the shapes to the number of vertices. They have to colour the shapes that have the specific number of vertices mentioned.

On this sheet, they work with simple shapes.


## Geometry - Count Vertices on 2D Shapes

Children understand that a vertex is where two lines meet at a point. They learn to count the number of vertices each shape has. They match the shapes to the number of vertices. They have to colour the shapes that have the specific number of vertices mentioned.

On this sheet, they have shapes in different orientation and try to recall the number of vertices simple 2D shapes havestererteaurriculum.co..uk


## Geometry - Count Vertices on 2D Shapes

On this sheet, children have a variety of shapes to choose from.
They total up vertices from 3 given shapes.

## Reasoning \& Problem Solving

## Geometry - Count Vertices on 2D Shapes

Children answer reasoning questions based on counting sides.
They explore trial and error and can use manipulatives to help them solve the problems.


Match the shapes to the number of vertices.


Colour the shapes with 3 vertices.


Colour the shapes with 4 vertices.


Complete the table.

| Name | Shape | Number of vertices |
| :---: | :---: | :---: |
| Hexagon | $\square$ |  |
| Square | $\square$ |  |
| Triangle |  |  |
| Rectangle |  |  |

Match the shapes to the number of vertices.


Colour the shapes with 3 vertices.
Colour the shapes with 4 vertices.


Complete the table.

| Name | Shape | Number of vertices |
| :---: | :---: | :---: |
| Hexagon | $\square$ | 6 |
| Square | $\square$ | 4 |
| Triangle |  | 3 |
| Rectangle |  | 4 |

Match the shapes to the number of vertices.


Colour the shapes with 4 vertices.


Colour the shapes with 5 vertices.


Match the shapes to the number of vertices.


Colour the shapes with 4 vertices.


Colour the shapes with 5 vertices.


Can you remember the number of vertices each shape has?

| Name | Shape | Number of vertices |
| :---: | :---: | :---: |
| Hexagon |  | 6 |
| Triangle |  | 3 |
| Pentagon |  | 4 |
| Square |  | 4 |
| Rectangle |  |  |

Match the shapes to the number of vertices.


Colour the shapes with 6 vertices.
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4


Colour the shapes with 8 vertices.

Can you add up the number of vertices the shapes have and find the total?

| Name | Shape | Total Number of Vertices |
| :---: | :---: | :---: |
| Octagon, Triangle, Square |  |  |
| Triangle, Square, Hexagon |  |  |
| Hexagon, Pentagon, Rectangle |  |  |
| Triangle, Square, Octagon |  |  |
| Square, Rectangle, Triangle |  |  |

Match the shapes to the number of vertices.

Colour the shapes with 6 vertices.
$\square$




$\{3$
Colour the shapes with 8 vertices.
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Can you add up the number of vertices the shapes have and find the total?

| Name | Shape | Total Number of Vertices |
| :---: | :---: | :---: |
| Octagon, Triangle, Square |  | 15 |
| Triangle, Square, Hexagon |  | 13 |
| Hexagon, Pentagon, Rectangle |  |  |
| Triangle, Square, Octagon |  |  |
| Square, Rectangle, Triangle |  |  |

Answer the reasoning questions.


Put these shapes in order from the smallest to the greatest based on the number of vertices they have.

$\square$

Zach has created a pattern using shapes.


How many vertices does each step in the pattern have?

What do you notice?

Can you predict how many vertices the next step in the pattern will have?

Answer the reasoning questions.


Put these shapes in order from the smallest to the greatest based on the number of vertices they have.


Zach has created a pattern using shapes.


How many vertices does each step in the pattern have?

$$
5,8,13
$$

What do you notice?
There is an additional shape in each pattern.
Can you predict how many vertices the next step in the pattern will have?
The next shape could be another pentagon (18 vertices) or another triangle (16 vertices).

