

Grade 1 - 2D and 3D Shapes - Lesson

Common Core 1.G.A.1, 1.G.A.2 · maths-pdf.fr/en/

This **shapes lesson** for 1st Grade covers 2d and 3d shapes (Common Core 1.G.A.1, 1.G.A.2), with a free PDF to print.

A shape has attributes, such as how many sides and corners it has. Defining attributes make a shape what it is, like a triangle having 3 sides. Non-defining attributes, like color, size, and which way it points, do not change its name. Shapes can also be put together to build new shapes, like two triangles making a square.

Grade 1 · Common Core State Standards: **1.G.A.1, 1.G.A.2**

Key facts in this shapes lesson

Key facts

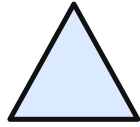
- A triangle has 3 sides and 3 corners.
- A square has 4 sides that are all the same length. A rectangle has 4 sides and 4 corners.
- Color, size, and turning do not change the name of a shape.
- A cube has 6 flat faces. A cylinder has 2. A cone has 1.
- Two shapes can be put together to make a new shape.

What is an attribute of a shape?

Every shape has parts we can count. We can count its sides and its corners. These parts are called **attributes**. Some attributes give a shape its name.

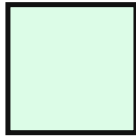
Defining attribute

A **defining attribute** is something every shape of that kind must have. A triangle always has 3 sides and 3 corners.



Triangle

3 sides



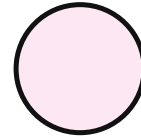
Square

4 equal sides



Rectangle

4 sides



Circle

round

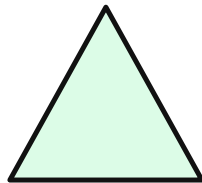
Four flat shapes and a defining attribute of each one.

Shape	Sides	Corners
Triangle	3	3
Square	4, all the same length	4
Rectangle	4, the opposite sides match	4
Circle	none, it is round	0

A square is a special rectangle. All its sides are the same length.

Which attributes do not change the name?

Color, size, and the way a shape is turned do not change its name. They are **non-defining attributes**. A big green triangle and a small orange triangle are both triangles.



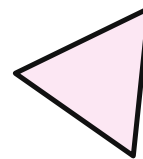
big

upright



small

upside down



medium

tilted

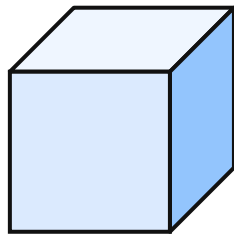
All three are triangles. Each one has 3 sides and 3 corners.

What are 3D shapes?

3D shape

A **3D shape** is solid. You can hold it. It has flat faces, curved parts, or both.

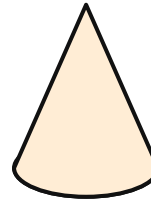
A cube has 6 flat faces, and each face is a square. A cylinder has 2 flat faces that are circles, plus a curved side. A cone has 1 flat face that is a circle, plus a point.



Cube
6 flat faces



Cylinder
2 flat faces

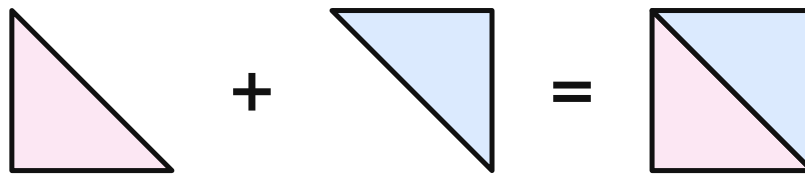


Cone
1 flat face

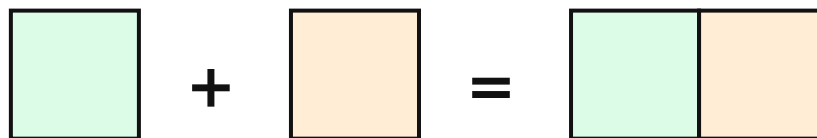
A cube, a cylinder, and a cone.

How can shapes be put together?

We can join shapes to make a new shape. Two triangles of the same size can make a square. Two squares can make a rectangle.



Two triangles make a square.



Two squares make a rectangle.

How do you name a shape?

1. Count the sides.
2. Count the corners.
3. Check if all the sides are the same length.
4. Do not use the color, the size, or the way it is turned.

Example: a shape has 4 corners and 4 sides, and all the sides are the same length. It is a

square.

Shapes lesson: questions and answers

What is a defining attribute?

A defining attribute is a part that every shape of one kind must have. A triangle must have 3 sides and 3 corners. If a shape does not have them, it is not a triangle.

Does turning a shape change its name?

No. A triangle that points down is still a triangle. The sides and corners stay the same when a shape is turned.

Is a square a rectangle?

Yes, a square is a special rectangle. It has 4 sides and 4 corners, and all its sides are the same length.

How are 2D shapes and 3D shapes different?

A 2D shape is flat, like a drawing of a circle. A 3D shape is solid, like a can. You can pick up a 3D shape and turn it in your hand.

How many flat faces do a cube, a cylinder, and a cone have?

A cube has 6 flat faces. A cylinder has 2 flat faces. A cone has 1 flat face.

How to use this shapes lesson

Read the definitions first, then follow the worked method line by line and redo the example on paper without looking. When every step makes sense, move on to the worksheet, then check yourself with the quiz.

Download the shapes lesson as a PDF with the button below and keep it with your notes.