2-D shapes

How do most 2-D shapes get their names?

From how many corners and sides they have

Can you think of some shapes that are just named after how many corners and sides they have?

3 – Triangle

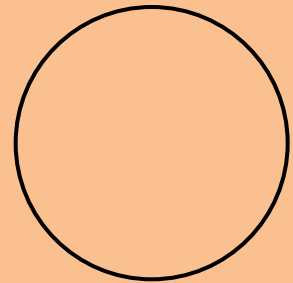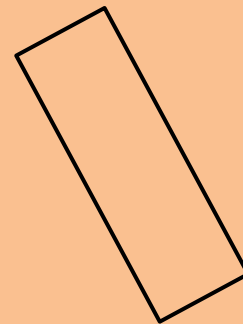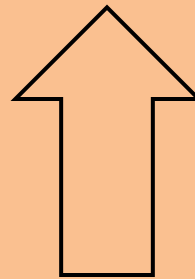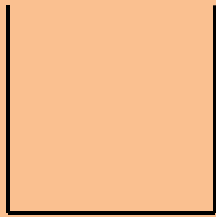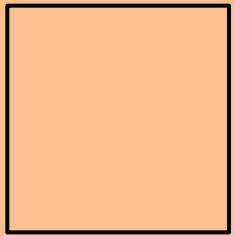5 – Pentagon

6 – Hexagon

7- Heptagon

8 – Octagon

10 - Decagon

Polygons and non-polygons

A polygon is a closed 2-D shape with straight sides

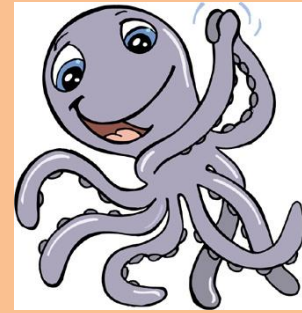Which of these shapes is a polygon?

Remembering names – tips!

Six

Hexagon

Tricycle – How many wheels?
Triangle

Octopus – How many legs?
Octagon
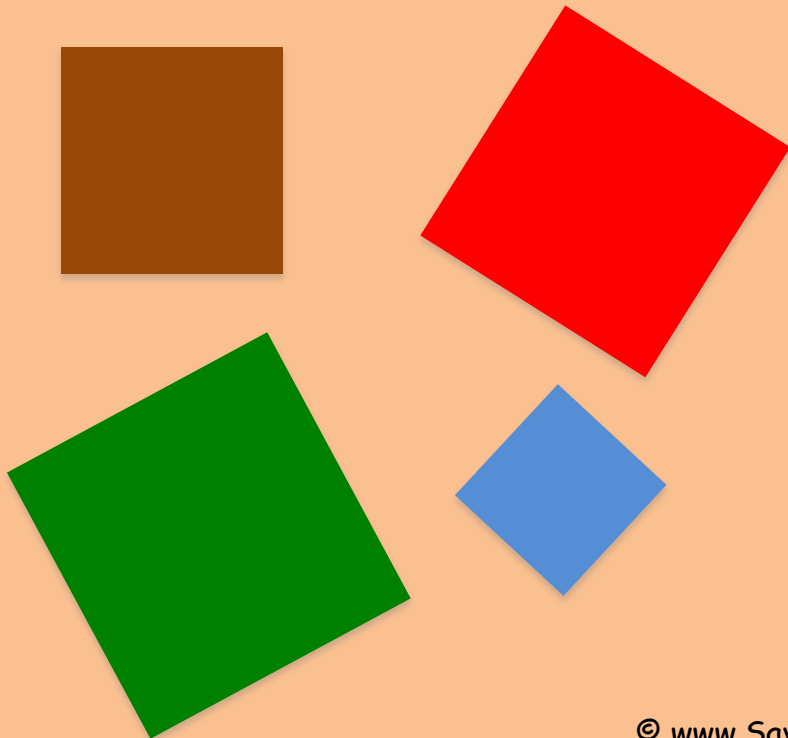
Corners are now vertices!

In year 3 we use the grown up word vertices instead of corners

Square or Rectangle?

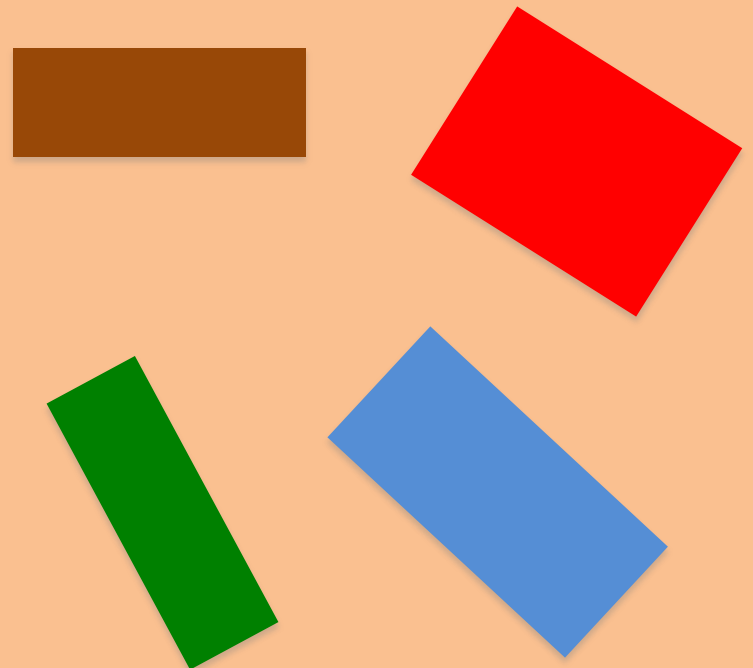Squares and rectangles have 4 straight sides and 4 right angles

Squares

| Rectangles

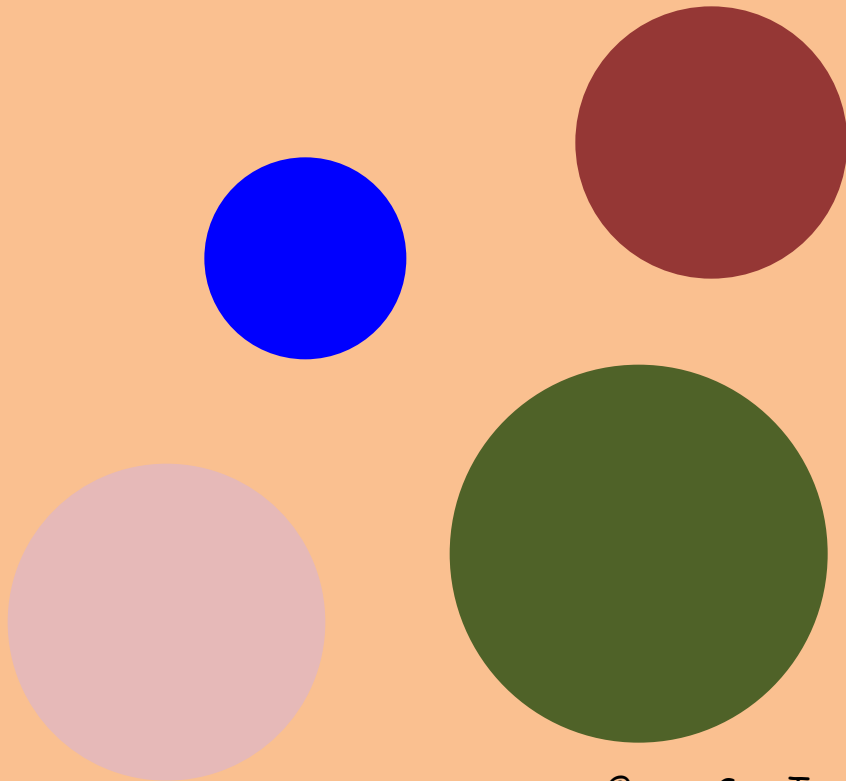All 4 sides are the same length | 2 short sides and 2 long sides

Circle or Oval / Ellipse?

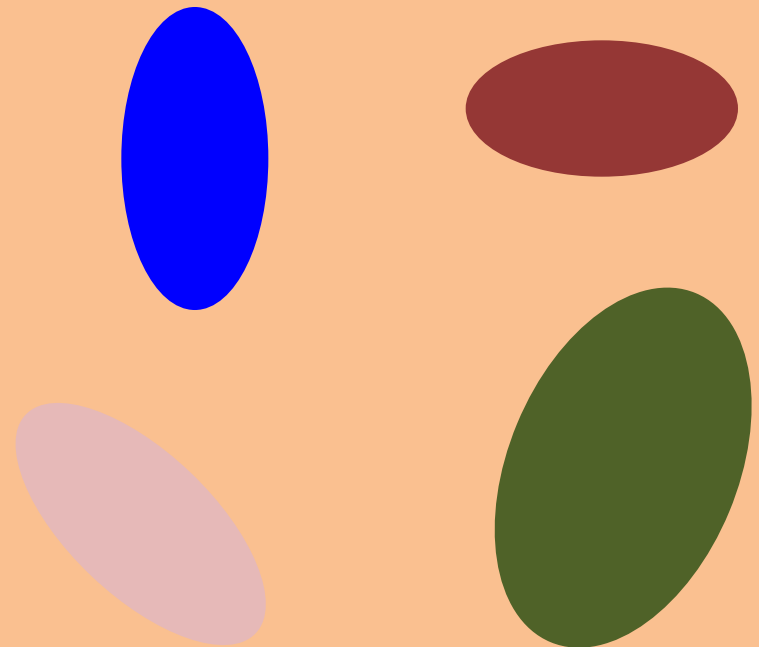Circles and ovals / ellipses have one, curved side and no vertices

Circles

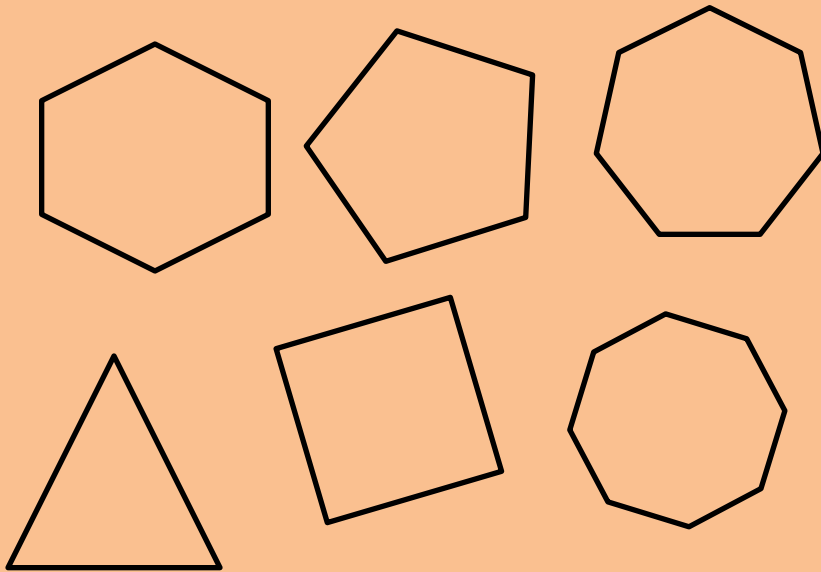Circles are perfectly round

Oval / Ellipse

Ovals / Ellipses look 'squashed'
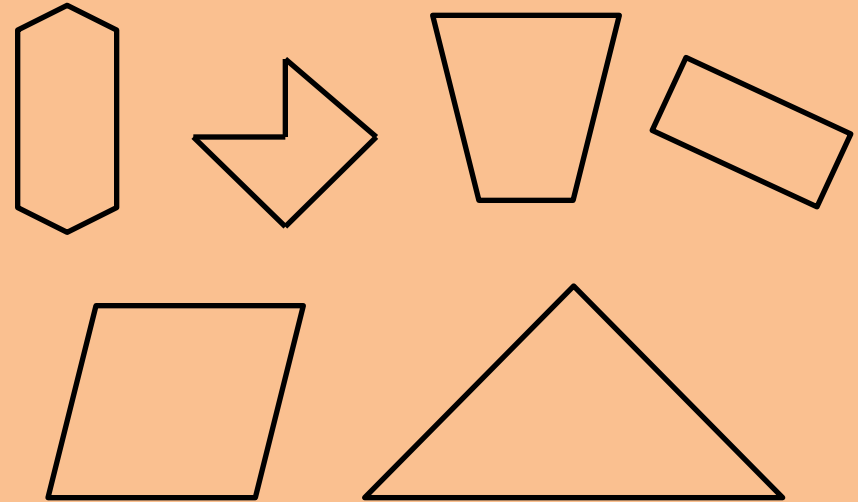
Regular or irregular?

Regular

All the sides are the same length
All the angles are the same

Irregular

All the sides are **NOT** the same length
All the angles are **NOT** the same

What other name can we give a square?

We could call it a regular quadrilateral or regular rectangle!

2-D shape names

Most shapes are named after **how many side / vertices** they have. However, watch out for those tricky ones in red!

1 - Circle

3 – Triangle

4 – Square

4 - Rectangle

5 – Pentagon
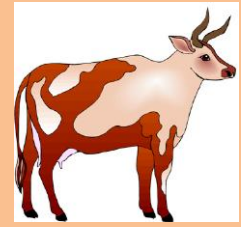
6 – Hexagon

8 – Octagon

1 – Oval / Ellipse

2 – Semi-circle
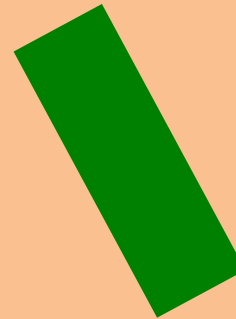
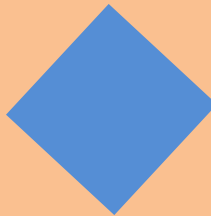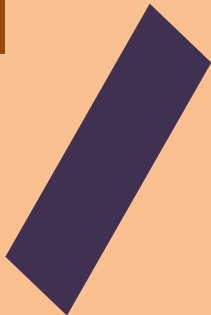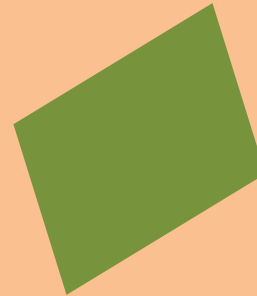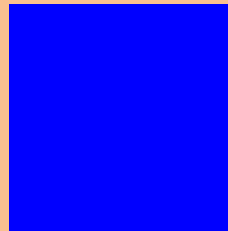4 - Quadrilaterals

7- Heptagon

10 – Decagon

Quadrilaterals

Quad-bike – How many wheels?

Quadruped – How many legs?

All shapes with 4 sides are called quadrilaterals

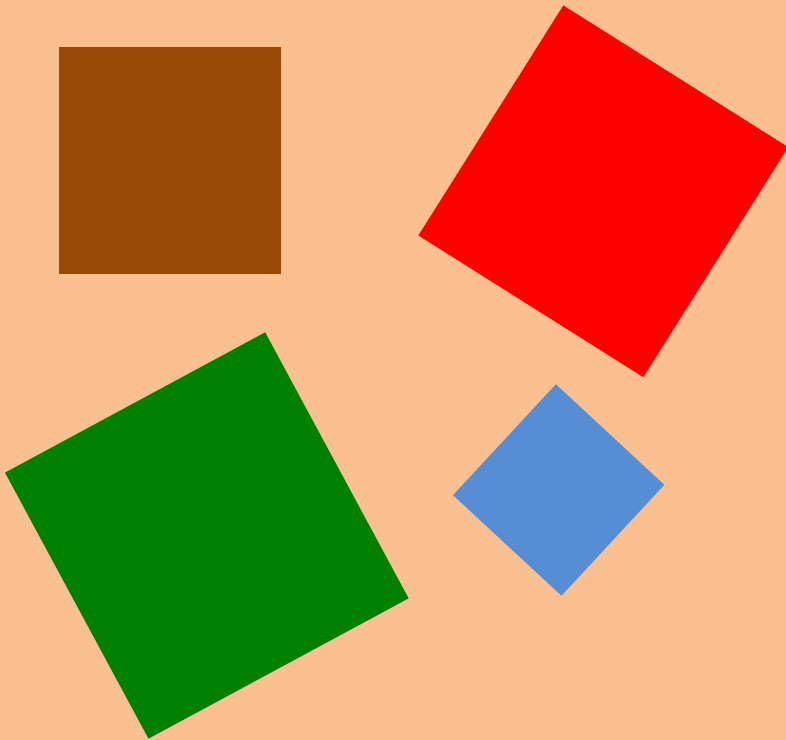Have you seen some of these before? Do they have other names as well?

Quadrilaterals

Quadrilaterals are named more accurately based on three main criteria:

- whether they have right angles or not
- how many of their sides are the same length
- how many pairs of parallel sides they have
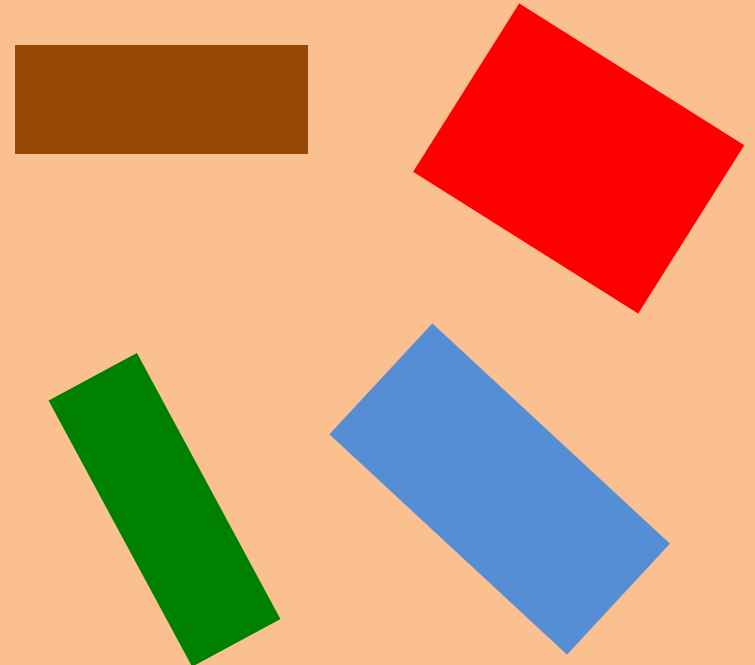
Quadrilaterals with right angles

Squares

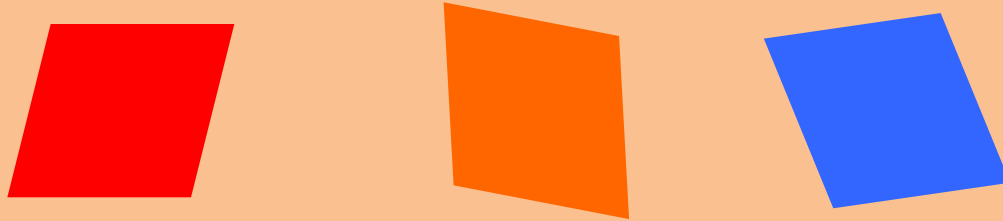All 4 sides are the same length

Rectangles

2 short sides and 2 long sides

Quadrilaterals with no right angles

Rhombus

- do they have right angles?
- how many of their sides are the same length?
- how many pairs of parallel sides do they have?

- no right angles
- all of their sides are the same length
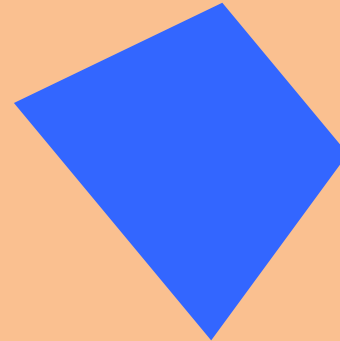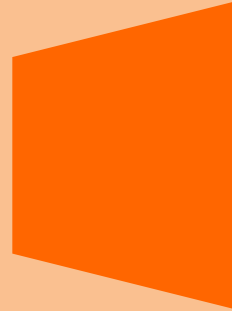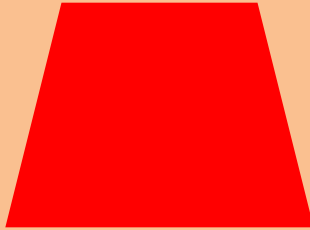- 2 pairs of parallel sides

Quadrilaterals with no right angles

Parallelogram

- do they have right angles?
- how many of their sides are the same length?
- how many pairs of parallel sides do they have?

- no right angles
- 2 equal long sides and 2 equal short sides
- 2 pairs of parallel sides
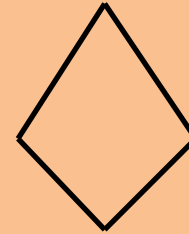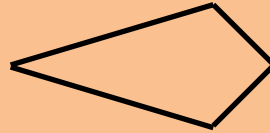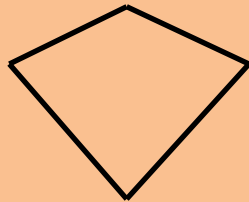
Quadrilaterals with no right angles

Trapezium

- do they have right angles?
- how many of their sides are the same length?
- how many pairs of parallel sides do they have?

- no right angles
- 1 pair of sides of equal length
- 1 pair of parallel sides

Quadrilaterals with no right angles

Kite

- do they have right angles?
- how many of their sides are the same length?
- how many pairs of parallel sides do they have?

- no right angles
- 2 equal long sides and 2 equal short sides
- 0 parallel sides