Area Knowledge Organiser

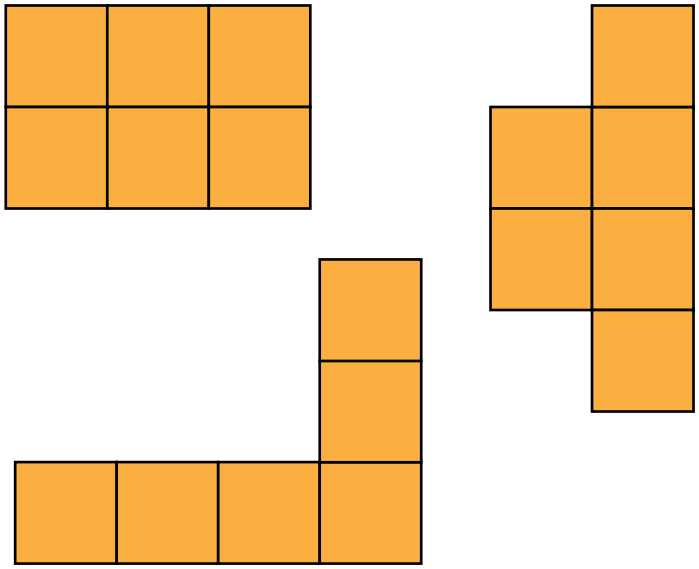
Maths

Y4

What is area?

Area is the **amount of space** taken up by a **2-D shape** or **surface**.

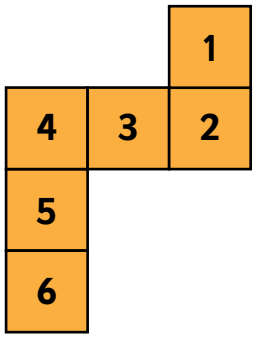
We can use sticky notes or equal squares of paper to explore the area of shapes.



These shapes are each made from 6 squares.
They are different shapes that have the same area.

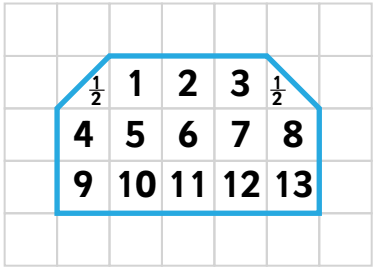
Counting squares

We can use the squares to help find the **surface area** of a shape by carefully counting 1 square at a time.



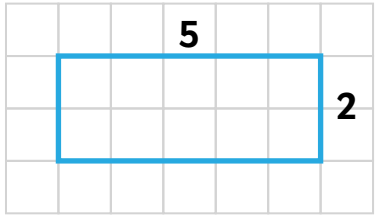
This shape has an **area** of **6 squares**.

When a shape has **diagonal side**, we can count the area as a $\frac{1}{2}$ **square**.
Two $\frac{1}{2}$ squares = 1 square.



This shape has an **area** of **14 squares**.

When a shape has an equal number of **columns and rows**, we can use **multiplication** to help us to find the **surface area**.

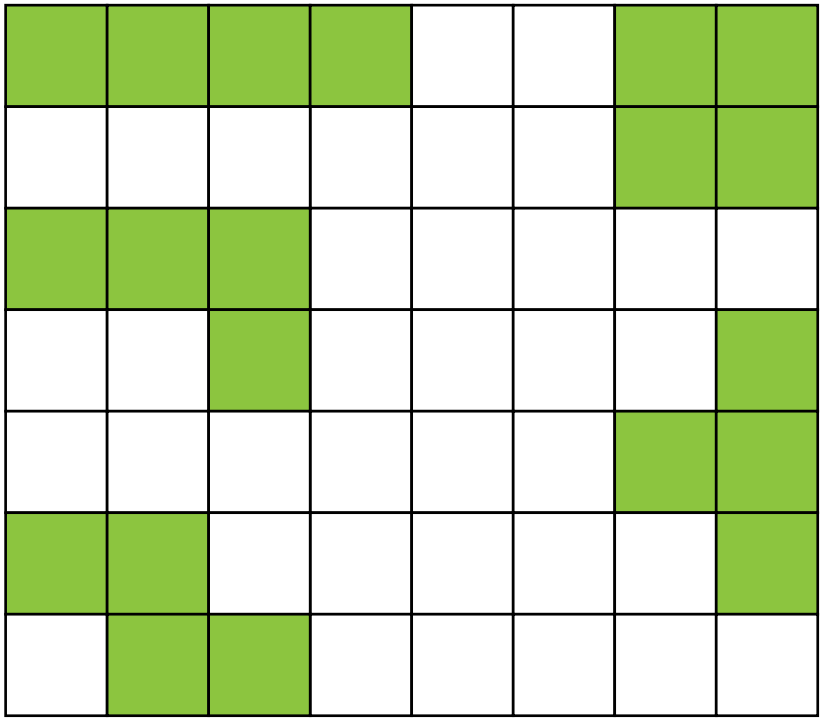


This shape has **5 columns** and **2 rows**.
5 x 2 = 10.
The **area** of the shape is **10 squares**.

Making shapes

We can draw **rectilinear shapes** using squares.

Rectilinear shapes are shapes that only have **straight sides** and **right angles**.



Each of these **rectilinear shapes** has an **area** of 4 squares.

Comparing area

When **comparing** the area of shapes we can **count squares** or use **multiplication** to help us.

It is important to make sure that the squares in shapes are **equal in size** before **comparing** them.