



What Angles Are and How to Measure Them

KS2 MATHS

Ages 9-12 ⌚ 3 min read

What is an Angle?

An **angle** is the space between two straight lines that meet at a point. Imagine two rays of light shooting out from the same spot—the opening between them is an angle. You see angles everywhere: the corner of a room, the hands on a clock, and even the way a door opens.

The point where the two lines meet is called the **vertex** (pronounced VER-tex). The two lines themselves are called **rays** or **arms** of the angle.

Think of it like opening a pair of scissors. The point where the two blades join is the vertex, and the two blades spreading apart create an angle between them.

How Do We Measure Angles?

We measure angles in units called **degrees**, shown with a tiny circle symbol: $^{\circ}$. A **full circle** is divided into **360 degrees**. This might seem like a strange number, but ancient mathematicians chose it because **360** can be divided by many other numbers, making it very useful.

Here are some common angles you should know:

A **right angle** is exactly **90 degrees** (written as 90°). This is what you see at the corner of a square or a piece of paper. A **straight angle** is **180 degrees**—it's completely flat, like a straight line. A **full rotation** brings you all the way around to where you started: **360 degrees**.

Think of it like a pizza. A whole pizza is 360° . If you cut it into four equal slices, each slice is 90° —one right angle.

Using a Protractor to Measure

A **protractor** is a tool shaped like a semicircle with numbers around the edge. These numbers go from **0 to 180 degrees**. To measure an angle, you line up the middle

point of the protractor (the **centre mark**) with the vertex of your angle. Then you line up one ray with the **0 degree line**, and read where the other ray points to on the scale.

Acute angles are smaller than 90° , **obtuse angles** are between 90° and 180° , and **reflex angles** are larger than 180° . Once you understand this simple system, you can measure any angle you encounter!