

SHAPE, SPACE AND MEASURES

Pupils should be taught to:

Extend the range of measures used to angle measure and bearings, and compound measures

As outcomes, Year 7 pupils should, for example:

Angle measure

Use, read and write, spelling correctly: angle, degree ($^{\circ}$)... protractor (angle measurer), set square... right angle, acute angle, obtuse angle, reflex angle...

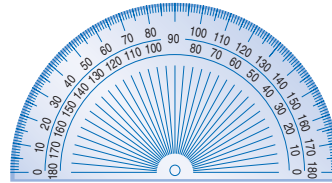
Use angle measure; distinguish between and estimate the size of acute, obtuse and reflex angles.

Discuss 'rays' of lines emanating from a point, using angles in degrees as a measure of turn from one ray to another.

Know that:

- An angle less than 90° is an **acute** angle.
- An angle between 90° and 180° is an **obtuse** angle.
- An angle between 180° and 360° is a **reflex** angle.
- An angle greater than 360° involves at least one complete turn.

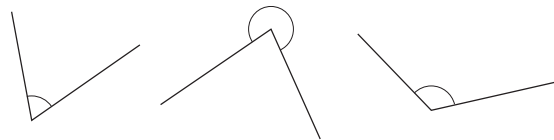
Use a 180° or 360° protractor to measure and draw angles, including reflex angles, to the nearest degree. Recognise that an angle can be measured as a clockwise or anticlockwise rotation and that the direction chosen determines which will be the zero line and whether the inner or outer scale is to be used.



- Draw angles of 36° , 162° and 245° .

Estimate acute, obtuse and reflex angles. For example:

- Decide whether these angles are acute, obtuse or reflex, estimate their size, then measure each of them to the nearest degree.



- Imagine a semicircle cut out of paper. Imagine folding it in half along its line of symmetry. Fold it in half again, and then once more. How many degrees is the angle at the corner of the shape now?

[Link to angles and lines \(pages 178–83\), and construction \(pages 220–3\).](#)