Using a protractor

Key learning

Estimate, draw and measure acute and obtuse angles, using an angle measurer or protractor to a suitable degree of accuracy.

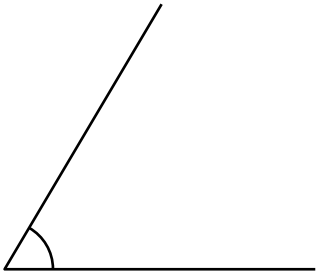
Check that your child can:

- read scales including those on rulers and protractors (or angle measurers).

Notes for parents/carers

Measuring with a protractor

To check that your child can measure angles with a protractor, ask them to measure this angle.



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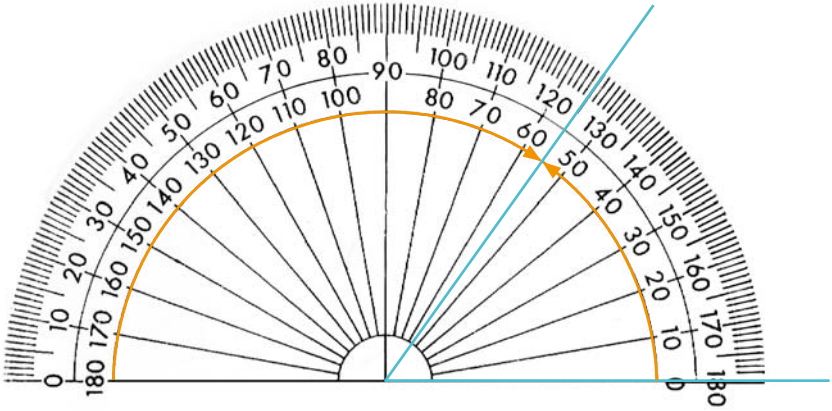
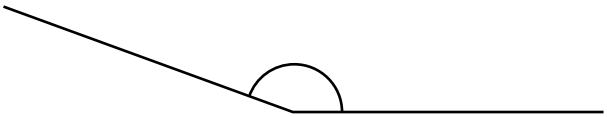
Help your child to measure angles by suggesting they:

- estimate whether the angle being measured is greater than or less than a right angle – in this case it is less than 90°;
- position the protractor baseline along one of the lines, so that the centre point of the baseline is over the point of the angle;
- read both scales where they meet the second line of the angle – in this case they show 55° and 125°, so from the estimate we know it must be 55°.



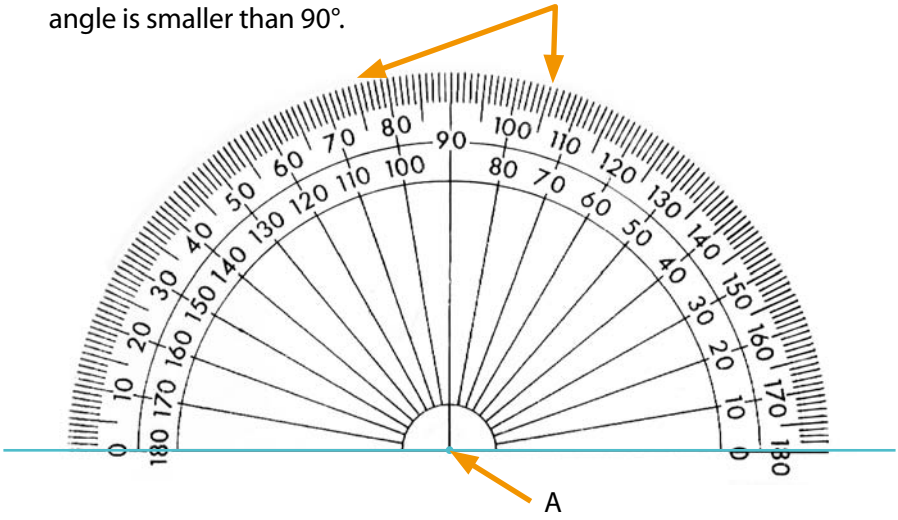
Now help your child to measure this angle, starting again by estimating whether it is greater than or less than a right angle.



Using a protractor to draw angles

Once your child can measure angles, you can help them draw angles of a given size, such as 75°. If they need some hints, suggest they:

- start by drawing a single straight line with a sharp pencil and mark a point A, which will form the apex (or point) of the angle;
- choose and mark the correct position for 75°, bearing in mind that the angle is smaller than 90°.



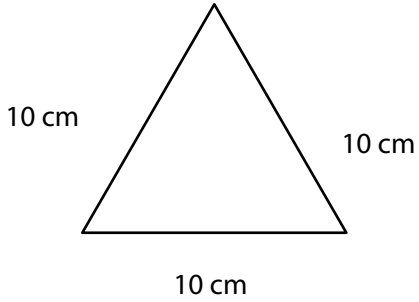
- join the correct point to A, with a straight line, to form the angle.

Helping your child to practise measuring and drawing angles

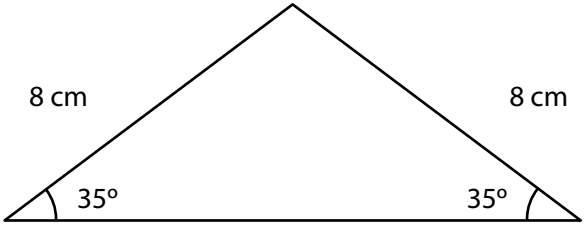
Draw some acute and obtuse angles for your child to measure. Check the accuracy of their measuring. Help your child draw angles of 90°, 35°, 70°, 115°, 10° and 163° and check for accuracy.

Some drawing challenges

- Here is an equilateral triangle – it has three equal angles of 60° and three sides of equal length. Help your child to draw a similar equilateral triangle with sides of 10 cm.



- Now ask your child to draw an isosceles triangle with two equal angles of 35° and two equal sides of 8 cm.



- Ask them to draw this right-angled triangle and to measure the two smaller angles.