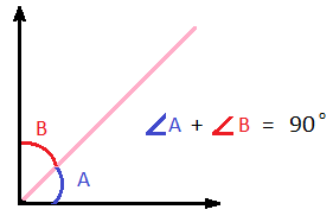
Angles 2

Stage 3 Outcome

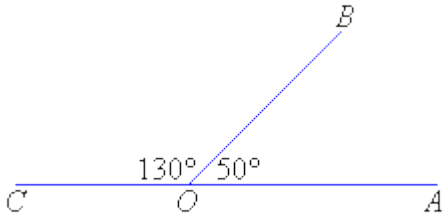
A student: › describes and represents mathematical situations in a variety of ways using mathematical terminology and some conventions MA3-1WM › measures and constructs angles, and applies angle relationships to find unknown angles MA3-16MG	**Language**: Students should be able to communicate using the following language: angle, right angle, straight angle, **angles on a straight line**, angle of revolution, **angles at a point**, **vertically opposite angles**.

Teaching and Learning Activities	Notes/ Future Directions/Evaluation	Date/ LAC Icons
Ignition Activities		
Angles Jeopardy Game **http://www.math-play.com/Angles-Jeopardy/Angles-Jeopardy.html** **(Angles formed by parallel lines is extension)** 		Literacy Information and communication technology capability
Explicit Teaching		
Students will learn about: Identifying angle types at intersecting lines including: • right angles,adjacent angles that form a right angle and establish that they add to 90°		

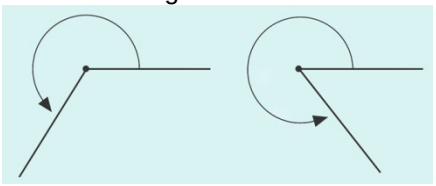


Adjacent Complementary Angles

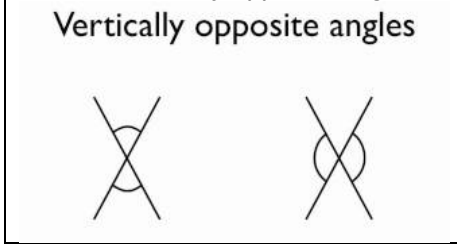
- ‘angles on straight lines and establish that they form a straight angle and add to 180°

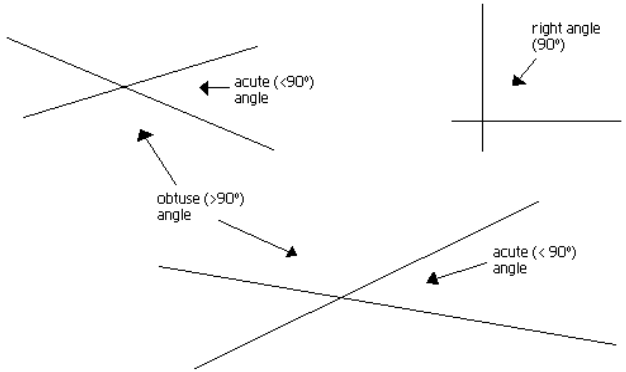
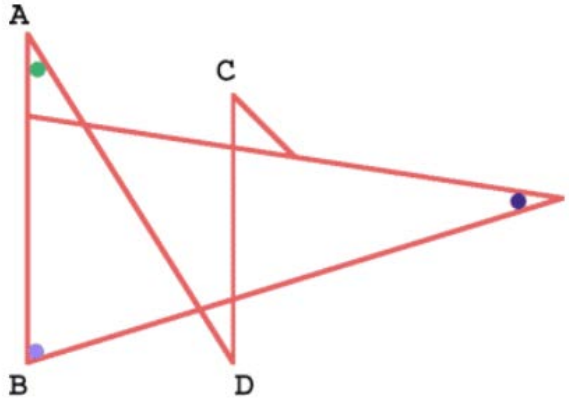


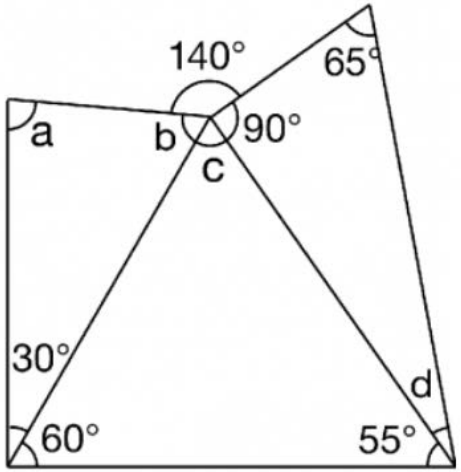
- ‘angles at points’ that form an angle of revolution and establish that they form an angle of revolution and add to 360°.



- ‘vertically opposite angles are equal



Angles at Intersecting Lines The teacher identifies different angle types created by intersecting lines in the environment eg doorframes. Students then identify any other angles created by intersecting lines that they can see. Students draw intersecting lines on the computer and label the angle created.  		Critical and creative thinking Information and communication technology capability
Ratty http://nrich.maths.org/712  If you know the sizes of the angles marked with coloured dots in this diagram which angles can you find by calculation? Explain your reasoning. Draw some diagrams of your own and mark in these angles.		Critical and creative thinking

Right Time At the time of writing the hour and minute hands of my clock are at right angles. How long will it be before they are at right angles again?		Literacy Critical and creative thinking
Angle Investigation Pose questions for students using similar structures as below.  What are the easiest angles to find? Why? What do we need to do before we find the value of b? Why?		Literacy