

## Ask the angle!

**Focus of activity:** Recognising acute, right and obtuse angles.

### Working together: conceptual understanding

- Draw the following angles so that all the children can see them:



- Use a protractor to measure each one.
- Explain that the middle angle is called a right angle, it measures  $90^\circ$  and it would look right inside a square or a rectangles.
- The first angle is less than  $90^\circ$ , and is sharp, we call it an acute angle. *If you get a sharp pain in your tummy, you could say it was an acute pain.*
- Say that the third angle is more than  $90^\circ$ , and we call this an obtuse angle, it is a blunt angle. *It wouldn't be a good angle for the tip of your pencil!*
- Join two strips of card with a brass fastener, and use these to show an acute angle. Chn call out *acute*. Gradually open the angle and ask chn to shout out when it becomes a right angle. Show an obtuse angle. Chn call out *obtuse*.
- Randomly show different types of angle (less than  $180^\circ$ ). Chn call out right angle, obtuse or acute. Ask a child to take your role after a while. Can they catch the rest of the group out?!

### Up for a challenge?

*Draw a four-sided shape with at least one of each type of angle.*

### Now it's the children's turn:

- Ask each child to tear off the corner of a piece of paper so that they have a right angle measure.
- They use this to practise identifying acute, right and obtuse angles (see child instructions).
- Go round the group and mark their angles as they identify them, e.g. initially after three examples.

### **S-t-r-e-t-c-h:**

If chn cope well, ask them to experiment with how many acute angles it is possible to have in a triangle (3), how many right angles (1), and how many obtuse angles (1) are possible.

### Things to remember

*Remember that an acute angle is sharp, a right angle looks right in a square or rectangle, and an obtuse angle is blunt.* Ask chn to take it in turns to use the strips of card to show an example of each type of angle.

*You may want to add something that has emerged from the activity. This may refer to misconceptions or mistakes made.*

**Resources**

- Two strips of card and a brass fastener
- Protractor
- Practice sheet (see child instructions)
- Torn off corner for each child to use as right angle measure

**Outcomes**

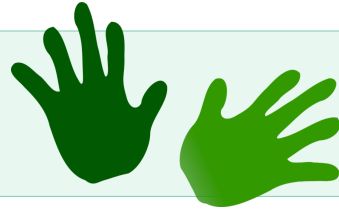
1. Chn can identify acute, right and obtuse angles.
2. Chn begin to draw acute, right and obtuse angles.

# Ask the angle!

## Work in pairs

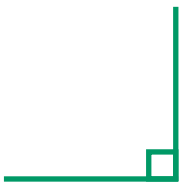
### Things you will need:

- A right angle measure
- A pencil



### What to do:

- Use your right angle measure to test if each angle is acute, obtuse or a right angle. Ring the correct description for each angle.



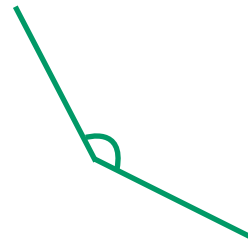
acute/right angle/obtuse



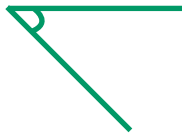
acute/right angle/obtuse



acute/right angle/obtuse



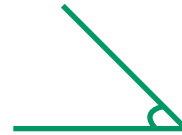
acute/right angle/obtuse



acute/right angle/obtuse



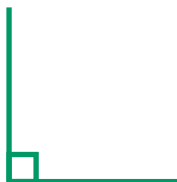
acute/right angle/obtuse



acute/right angle/obtuse



acute/right angle/obtuse



acute/right angle/obtuse



acute/right angle/obtuse

### ***S-t-r-e-t-c-h:***

Investigate by drawing, how many acute angles it is possible to have in a triangle.  
How many right angles do you think can be in a triangle?  
How many obtuse angles do you think can be in a triangle?

### Learning outcomes:

- I can identify acute, right and obtuse angles.
- I am beginning to draw acute, right and obtuse angles.