What's Your Angle?

- **Using a model to classify angles**
- **MATH VOCABULARY: Right, acute, and obtuse angles**
- **Using a chart**

Aim

Students find and model angles with the Angle Finder diagram.

Before the Activity

Copy and distribute pages 63–64.

During the Activity

Students can work through this activity individually or in groups of three or four. If they work in groups, be sure each group member looks for all three types of angles. On stairs, tables, or in other places, students might find angles that have slightly rounded corners. Have students bend their pipe cleaners to match these angles as well as they can. Then have them re-bend the corners of their pipe cleaners to make them more pointed. Encourage students to use pipe cleaners of different lengths to test and verify that the length of the pipe cleaner does not affect the angle's size.

After the Activity

Ask: *If you did not have a pipe cleaner and an Angle Finder, what are some other ways you could decide whether an angle was acute, right, or obtuse?*

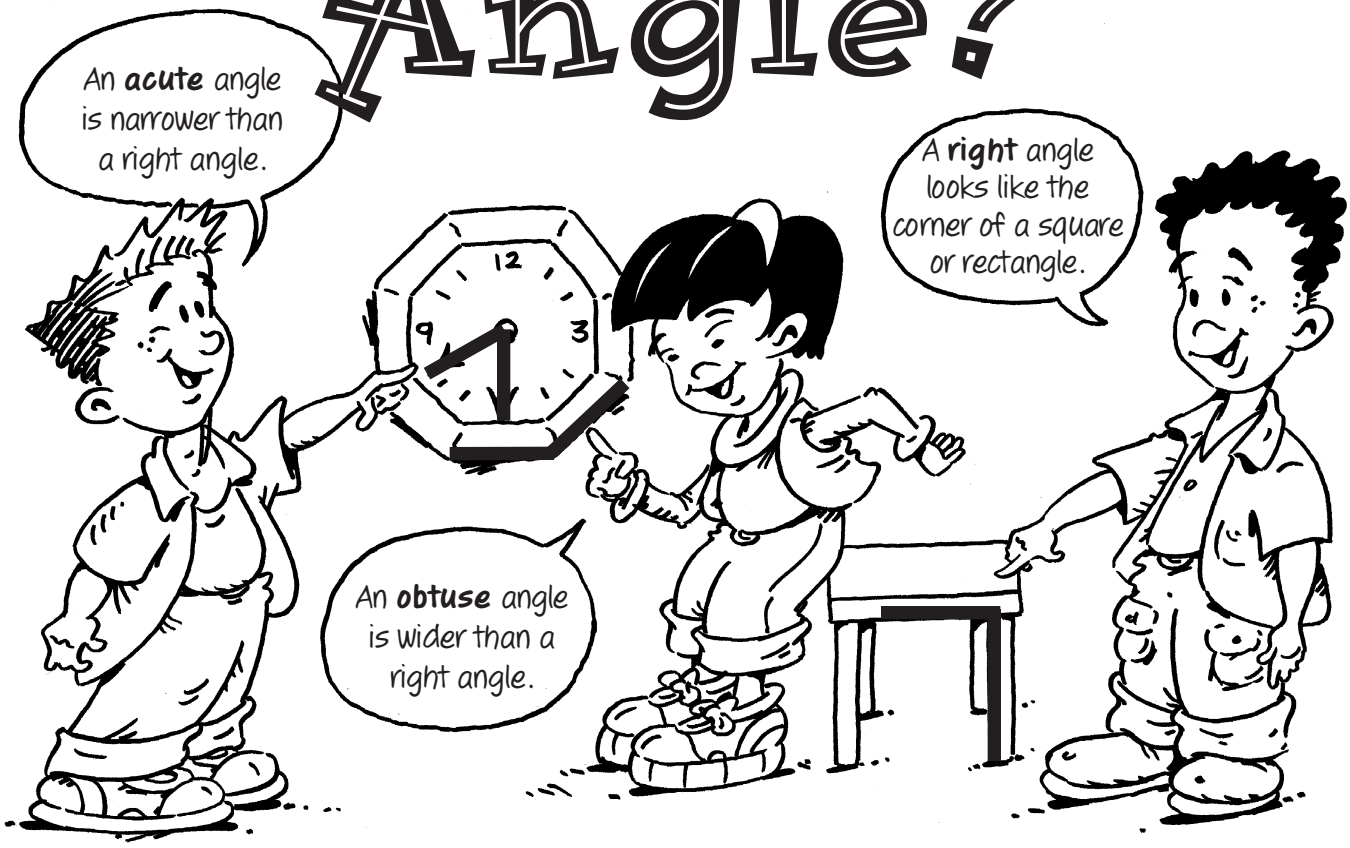
Extension 1

Copy and distribute page 65. Students can examine each angle in the letters MATH and determine whether it is right, acute, or obtuse.

Extension 2

After students have used the Angle Finder to classify angles, give them protractors and show them where 90° is located. Show them how to use the protractor to draw and measure a 90° angle and point out that all right angles measure 90°. Finally, have students use the protractor as an angle finder to classify some angles modeled with pipe cleaners. Students should notice whether angles are acute, right, or obtuse, and whether their measures are greater or less than 90°. After they have made a few comparisons, have students write to explain what acute angles have in common and what obtuse angles have in common.

What's Your Angle?



Don't look now, but you may be sitting on an angle! An angle is formed where two lines meet at a point. The place where the back of your chair meets the seat of your chair makes an angle. Are you wearing jeans? The corners of your back pockets form angles. Are your arms or legs bent? They make angles, too!

There are three types of angles—**right, acute,** and **obtuse.**

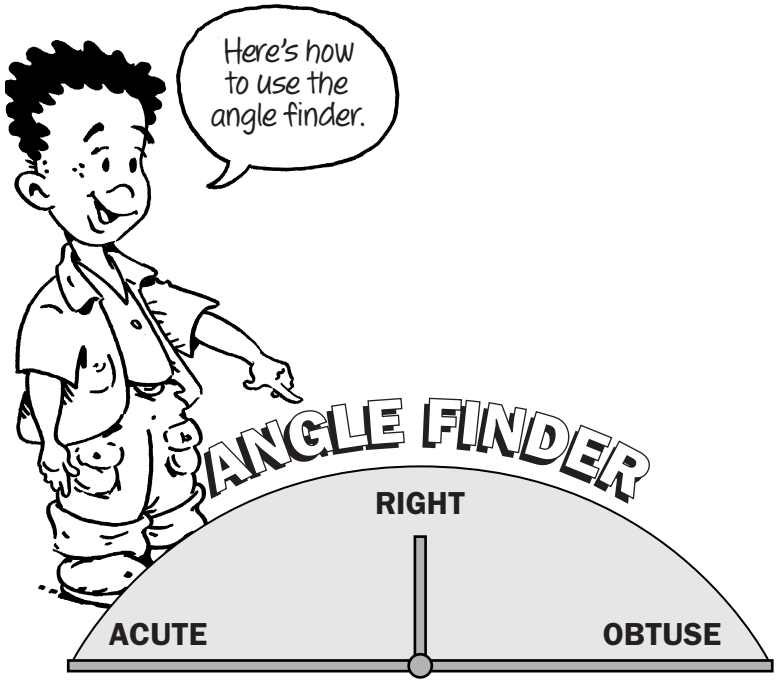
You can find angles just about anywhere! They're in the edges of a table, the letters of the alphabet, the hands of a clock.

Hunt for some angles in your classroom. Then follow the directions to find out what kind of angle each one is.

You Need:
pipe cleaner

What to Do:

1. Use the pipe cleaner to match the angles in your classroom. When you find an angle, bend the pipe cleaner to match it.
2. Hold the bent pipe cleaner up to the Angle Finder. It will tell you which kind of angle you've found. (It doesn't matter how long or short your pipe cleaner is—the angle will be the same.)
3. As you find each type of angle, list it on the Angle Chart. (We listed a few to get you started.) Then straighten out the pipe cleaner and start again.



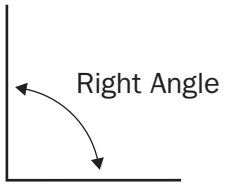
Angle Chart

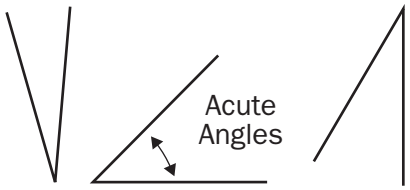
RIGHT	ACUTE	OBTUSE
Corner of my notebook	Space between my fingers	Clock hands at 10:30

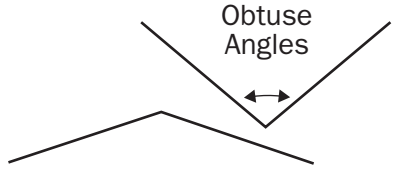
Angles from A to Z

Angles are hiding everywhere—even in the words you're reading now. When two straight lines meet, they make an angle. There are three kinds of angles:

- The corner of a square or rectangle makes a **right angle.**
- Angles that are **smaller** than right angles are called **acute angles.**
- Angles that are **larger** than right angles are called **obtuse angles.**







Take a look at the letters below. Circle each angle you see in the letters. Tell whether it is right, acute, or obtuse.