

Science Fair Sundials

Ahmed arrived at the gym. Everyone was setting up for the science fair. He went to an empty table and put out his photos. He propped up his poster. He was ready.

The topic of Ahmed's project was sundials. He had learned all about them. He found out that a sundial is a device that tells time. You can tell what time it is depending where the sun casts its shadow on the dial.

A sundial is made of a flat plate and a stick. The stick is called gnomon. Ahmed liked that word. It reminded him of a gnome. Because they need sun, sundials are often found in gardens. Just like gnomes.

Ahmed built his own sundial. He made it out of a paper plate and a drinking straw. First, he wrote the number 12 at the top of the plate. Then he poked a hole in the middle of the plate. He drew a line from the 12 to the hole. This line would represent 12 o'clock noon.

Next, Ahmed went into the garden. He used a compass to find North. He put the plate on the ground and stuck the straw into the hole. He pushed the straw slightly towards the North.

At noon, Ahmed moved the plate so that the shadow of the straw lined up perfectly with the line he drew. He put some pins into the plate so it would

stay in place. Every hour he went back to his sundial. He wrote the number of the hour on the edge of the plate where the straw's shadow fell.

The shadow moved in a clockwise direction. Once it was done, the numbers wound around the edge of the plate like a clock. Ahmed took pictures of the sundial every hour.

Back in the gym, he laid out the photos. He put out his sundial. On his poster, he had information about sundials. He had directions for making them too. Ahmed couldn't wait for the fair to start. He was going to tell everyone how awesome sundials could be!



This page has been intentionally left blank.

NAME: _____ DATE: _____

1. Where was the science fair being held?
 - a. In the garden
 - b. In the gym
 - c. In the science room
 - d. In the auditorium

2. What did Ahmed use to build his sundial?
 - a. A paper plate and a drinking straw
 - b. A paper plate and tinfoil
 - c. Sandpaper and a drinking straw
 - d. Tinfoil and sandpaper

3. What do a sundial and gnomes have in common?
 - a. They are make believe
 - b. The tell time
 - c. They are found in the garden
 - d. They are green

4. What did Ahmed need to know *before* he made his sundial?
 - a. How to set up his display
 - b. How to use a compass
 - c. How to tie his shoes
 - d. How to count to 100

Instructions for teachers:

These questions can be used to assess understanding of the reading passage.

The item in bold is the correct answer for each question.

1. Where was the science fair being held?
 - a. In the garden
 - b. In the gym**
 - c. In the science room
 - d. In the auditorium
2. What did Ahmed use to build his sundial?
 - a. A paper plate and a drinking straw**
 - b. A paper plate and tinfoil
 - c. Sandpaper and a drinking straw
 - d. Tinfoil and sandpaper
3. What do a sundial and gnomes have in common?
 - a. They are make believe
 - b. The tell time
 - c. They are found in the garden**
 - d. They are green
4. What did Ahmed need to know *before* he made his sundial?
 - a. How to set up his display
 - b. How to use a compass**
 - c. How to tie his shoes
 - d. How to count to 100