

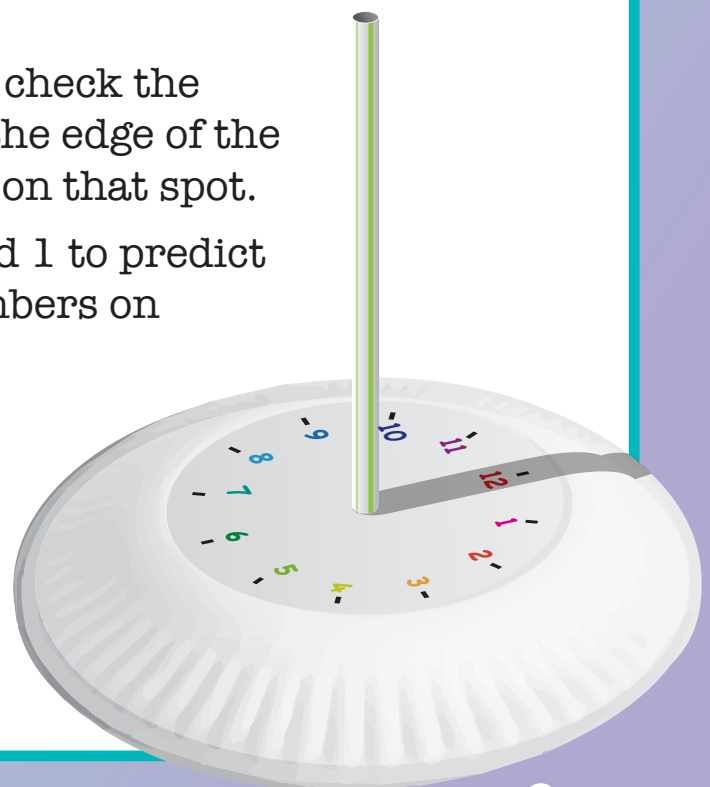
# How to Make a Sundial

## What you need:

- crayons
- sharp pencil
- ruler
- paper plate
- thumb tacks
- plastic straw

## What to do:

1. Use the sharp pencil to poke a hole through the very centre of the plate.
2. Put the plate upside down.
3. Write the number 12 on the edge of the plate with a crayon.
4. Using the ruler as a guide, draw a straight line from the number 12 to the hole in the centre of the plate.
5. On a sunny day, take the plate outside at noon (12:00 pm).
6. Put the plate on the ground and poke the straw through the hole.
7. Turn the plate so that the shadow of the straw falls along the line to the number 12.
8. Using your thumb tacks, fasten the plate to the ground.
9. One hour later, at one o'clock, check the position of the shadow along the edge of the plate and write the number 1 on that spot.
10. Use the positions of the 12 and 1 to predict the positions of the other numbers on the sundial.
11. The next day, take your sundial out and you will be able to tell the time without a clock.

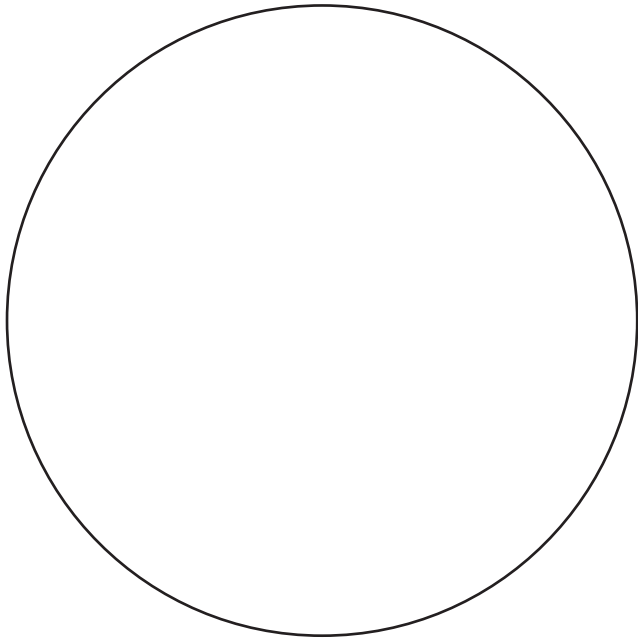


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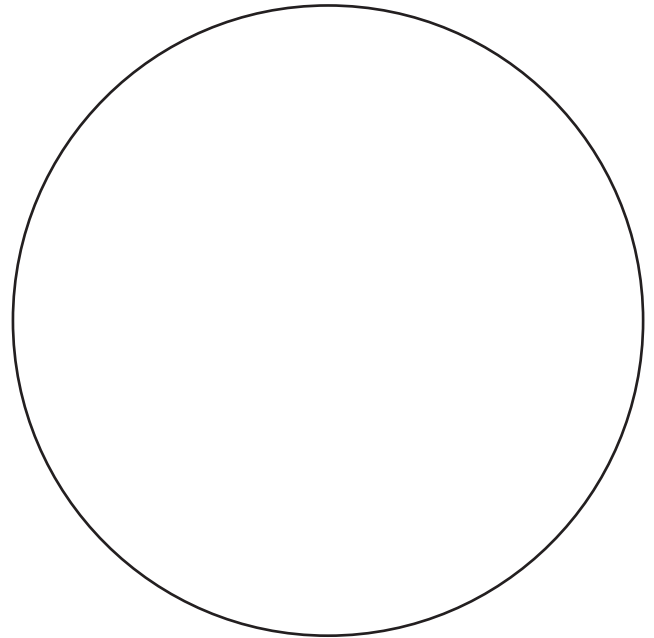
Date \_\_\_\_\_

# Sundial Observation Sheet

Draw a picture of your sundial and the shadow it creates at 12 pm and again at 1 pm.



Noon (12 pm)



1 pm

1. What happened to the shadow of the straw?

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2. Why do you think this happened?

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3. Predict where you think the shadow will be at 2 pm.

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