

MONSTER SCIENCES

Making Science Fun!

THE WEATHER

FOLLOW THE SUN

What you will need:

- A large sheet of paper
- Sticky Tape
- A pencil

What you will do:

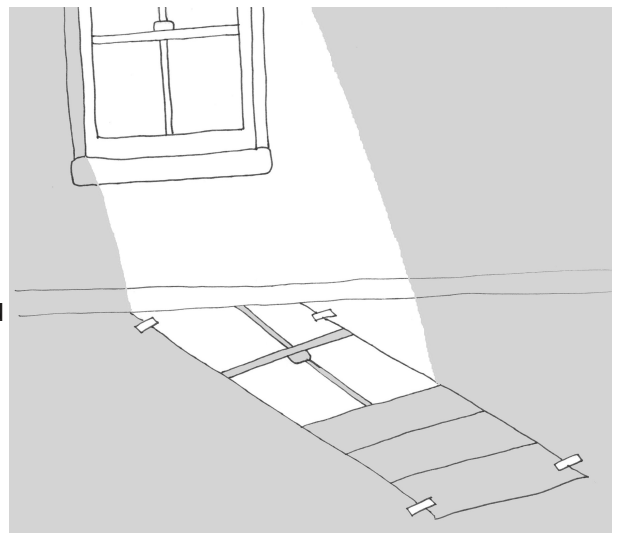
1. First thing in the morning tape a large piece of paper to the floor underneath a sunny window.
2. Use the pencil to mark the top of the sunlight shining through the window.
3. Every half hour or so mark the new location of the top of the sunlight. Continue this for the rest of the day.

What should happen:

You should be able to see how the sunlight has moved throughout the day. Did you notice a change through any other window during the day? Now use a compass or a map to figure out which direction the window points. Can you explain what's happening based on the direction of the window?

Monster Challenges:

- What would you have seen if you had done this experiment on a window facing the opposite way?
- Will this experiment be different in different seasons?
- Have a look at Google Earth or a short video to see how the sunlight moves across the surface of the Earth as the Earth rotates,
- PS: Don't forget that it's the Earth that moves, not the sun!



Key Concepts:

- The sunlight shines on different parts of the Earth as the Earth rotates

Resources:

- Experiment description Weather W06 - one copy per student.
- A large piece of paper and a pencil

Lesson Notes:

Begin the lesson first thing in the morning by discussing what the students know about the sun. Depending on their age and understanding you may include concepts like it provides heat and light, helps plants grow and keeps animals healthy etc. Then ask about the movement of the Earth. You might like to show a short video or have a look at Google Earth to see how the sun's light moves across the Earth as the Earth rotates.

Now as a class have a look at the weather in particular the sunlight and where it is entering the classroom at the moment.

As a class read through the procedure of this experiment and discuss how the students are going to observe and record the changes in the sunlight. If you have enough windows, perhaps you can allocate groups of students to monitor each window.

At the end of the day gather the students together again and hold a whole class discussion of the results.

What should happen in this experiment, and why?

The sun should move during the day so you will see different lines on the paper from different times during the day. You should discuss how things would change in different seasons - longer days in summer, shorter in winter etc. Depending on the age and understanding of the students you could also discuss how this is the result of the tilt in the Earth's axis.