



## Science in the Air and Sky

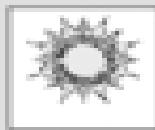
Science is anywhere we can observe our surroundings and ask questions, including in the air and sky. Some of the many kinds of sciences we find in the air and sky are physics, astronomy and ecology.

All experiments start with a question. Do you ask a lot of questions? That could make you a good scientist. There are many questions you could ask when observing the sky, and answer with science.

### Astronomy

**Experiment:** During the year, the Sun appears at different places at the same time of the day. At 6 P.M. in summer it's sunny outside, while at 6 P.M. in winter the Sun has set.

**Question:** How does the Sun change its position during the year?



**Safety Note:** Never look directly at the Sun or any bright light source.

**Materials:** 2 x 4 in (5 x 10 cm) wooden stick or cardboard square

10-12 in (25-30 cm) stick, 1/4-1/2 in (6-12 mm) diameter

Tube of glue

Marker

### Experiment:

**Step 1:** Glue the wooden stick to the cardboard square so that it stands vertically. Glue the stick closer to one of edge.

**Step 2:** After the glue dries, place the cardboard square on a flat surface where it will be exposed to the Sun. Record the time.

**Step 3:** Mark the spot on the board where the tip of the shadow falls, and label it with the date. Do this daily at the same time. It is essential that the board be in the same spot and face the same way each time.

What can you observe? Do you think there are any days when the Sun appears in the same place at the same time? Are there places on Earth where the shadow would fall at the same place every day?