

Create a Sunial

Explore how to tell time with the help of the Sun!

Materials:

Sun ial Template printable (or draw your own), scissors, pencil, playdough or clay, glue. You will also need a sunny day and access to outside.

Instructions:

Step 1: Cut out the • μ vial template and number markers. If you are making your own, draw a circle 8 inches (20 cm) in diameter, and write the numbers 1 through 12 on small pieces of paper.

Step 2: Place your circle in an outside location that will remain sunny as long as possible.

Alternatively, you make a larger circle on the ground and mark the edges with rocks, snow, or sticks.

Step 3: Make a ball from playdough or clay, about 1 inch (2.5 cm) thick. Place it in the center of the circle. Stick one end of the pencil in the ball so it stands straight up. The pencil should cast a thin shadow on the paper, similar to the hand on a clock. As the sun moves in the sky, this shadow will help you tell time!

Step 4 Wait for your own clock to mark the hour, and.

Sun ial Template

12

11

1

2

10

3



9

4

8

5

7

6

Telling Time with the Sun

The Earth orbits, or moves in a circle, around the Sun once every year. At the same time, the Earth spins around once every 24 hours. Because of this, we see the Sun in a different position in the sky as time passes. From our position on Earth, it takes one day for the Sun to come back to the same place in the sky. The position of the Sun in the sky is how we tell time!

For thousands of years, people have watched the Sun to tell time. Cultures all over the world divided the day into sections, observed changes in the amount of sunlight, and tracked the movement of the Sun.

Right: An Arctic sunset.

