

Make a sundial



You will need:

- A stick or piece of dowel
- Stones
- A watch or clock

Starting at midday (12 o'clock), find a sunny spot in your garden. Plant the dowel or stick standing straight up and down. Place a stone at the end of the shadow cast by the stick. Repeat this step every hour until the sun sets. You'll find that the shadow will have moved each time.

At this point, you will only have completed half of the sundial. Return the next morning to mark your shadows on the hour from sun up to midday.

What did you observe?

When was the shadow the longest?
Where was the Sun?

When was the shadow the shortest?
Where was the Sun?

Why do you think the shadows change length? How can you explain what you are observing?

How will the shadows change at different times of year? Will they get longer or shorter?

Did the spot you chose at midday still have full sun at 3pm or 6pm? Does it have full sun in the morning?

Will your sundial work when it's cloudy?

