

HUMAN SUNDIAL



SUPERNOVA
DALHOUSIE UNIVERSITY | HALIFAX, NOVA SCOTIA

**LEARN ABOUT THE EARTH'S ROTATION &
HOW SHADOWS ARE CREATED!**

MATERIALS

1-3

Sidewalk chalk
(Optional) Measuring tape
(Optional) Science notebook or
nature journal to record your
observations!

30 MINS THROUGHOUT THE DAY

PROCEDURE

Step 1

Choose a sunny day when no clouds,
rain or snow are expected.

Step 2

Find an open cement or asphalt area near your home where the sun
shines all day where you can perform your experiment (for example,
a driveway or parking lot). It's a good idea to observe your space for
shadows prior to conducting the experiment.

Step 3

Draw an "X" where you will stand each time you have your shadow
traced.

Step 4

Have a partner use sidewalk chalk to trace your shadow at least
three times throughout the day- think of mealtime as your cue to
trace your shadow. You can measure the length of your shadow,
and make note of what time you took your measurement.

**TRY TO PREDICT THE SHAPE AND LOCATION OF YOUR
SHADOW!**

PURPOSE & SCIENCE OUTCOMES

- Our earth spins on its axis in a day and makes its way around the sun in a year.
- Your shadow changes location as the earth rotates throughout the day.
- Notice how you block more light when the sun is at a lower angle (side on) making longer shadows; when the sun is at a higher angle (overhead) the shadows are shorter.

ANY QUESTIONS? REACH OUT @SUPERNOVAATDAL