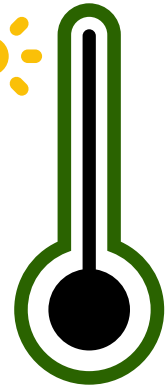




TREEPEOPLE

# Temperature Investigation



When the sun hits different surfaces such as concrete and asphalt the effect of that heat can increase the temperature of the surrounding area for miles. This may mean an increased need to use air-conditioning units, but it also can be harmful to our health. To get a better idea of temperatures in an around your home and neighborhood, try this at-home activity using a simple outdoor thermometer.

## What you will need:

- Outdoor or “Student” thermometer for measuring air temperature (this can be purchased on-line)
- Worksheet
- Pencil

## Procedure:

- Review how to use and read a thermometer:
  - A thermometer is an instrument used to measure temperature - this thermometer measures air temperature.
  - As the liquid (red alcohol) in the bulb begins to heat up it expands and goes up the tube. The warmer it gets the higher it goes.
  - We use the degree Fahrenheit (F) as the unit of measure.
- Follow the worksheet to record air temperature in several locations around the yard or neighborhood.
- When measuring be sure to:
  - Hold the thermometer shoulder height, over the center of the area you are measuring.
  - Hold the thermometer in a way that measures air temperature, not hand temperature.
  - Wait at least 3 minutes before taking the reading.

## Graph your results:

- Using the graph on the worksheet, draw a temperature bar for each area you recorded.
- Looking at the bar graph, ask:
  - Which area was the coolest? Why?
  - Which area was the hottest? Why?
  - What is a solution to help lower the temperature at your house or in the neighborhood?

***We want to share your results!***

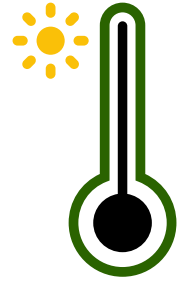
*Post to your social media and tag us at [treepeople\\_org](https://www.treepeople.org) #greenquarantine*

*This lesson is made possible through the generosity of Subaru of Sherman Oaks*



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Name: \_\_\_\_\_



# Temperature Investigation

### Remember:

- Choose a sunny day to take readings
- Hold the thermometer shoulder height, over the area you are measuring.
- Hold the thermometer to measure air temperature, not hand temperature.
- Wait at least 3 minutes before taking the reading.

**AREA A:** Concrete or asphalt area in the sun      Temperature Reading: \_\_\_\_\_ ° F

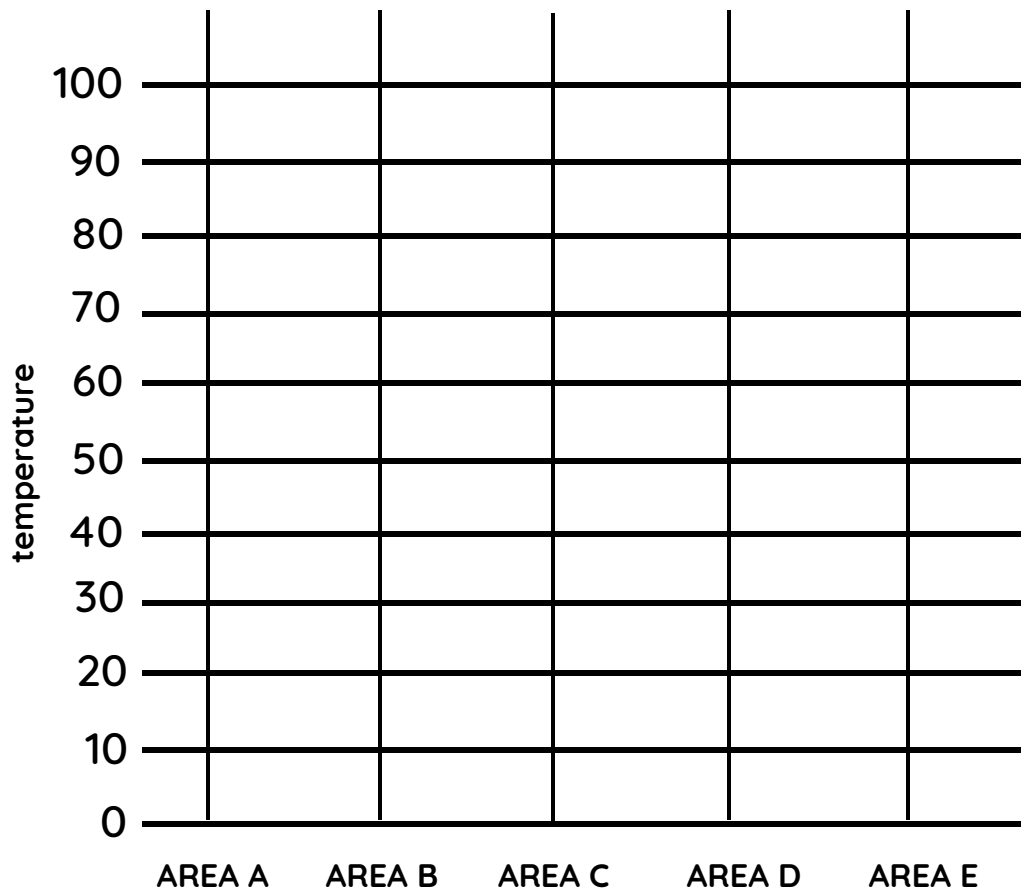
**AREA B:** Concrete or asphalt area in the shade      Temperature Reading: \_\_\_\_\_ ° F

**AREA C:** Under a tree in the shade      Temperature Reading: \_\_\_\_\_ ° F

**AREA D:** Next to an outdoor air conditioning unit      Temperature Reading: \_\_\_\_\_ ° F

**AREA E:** Another location of your choice      Temperature Reading: \_\_\_\_\_ ° F

### Create a bar graph of your results:



Which area was the coolest? Why?

Which area was the hottest? Why?

What is a solution to help lower the temperature at your house or in the neighborhood?