

Urban Heat Island Protocols

Field Guide

Task

Measure surface temperature.

What You Need

- [Surface Temperature Data Sheet](#)
- Pencil or pen
- Hand-held Infrared Thermometer (IRT)
- [GLOBE Cloud Chart](#)

Surface Temperature

1. Complete the top of the Surface Temperature Datasheet.
2. Record the Latitude and Longitude of your Observation Site
3. Determine the Surface Type (soil, asphalt, etc...)
4. Determine the Surface Condition (Wet or Dry)
5. Pick an Observation Spot (enough space to collect 9 surface temperature measurements)
6. Point the Infrared Thermometer (IRT) at a 45 degree angle and press the trigger.
7. Record the surface temperature on your data sheet.
8. Repeat an additional 8 times. Make sure your measurements are from the SAME TYPE of surface as the first measurement.



Air Temperature

1. Hold your alcohol-filled thermometer from the top of the thermometer or place the rubberband around your wrist.
2. Hold the thermometer at eye level.
3. Read the temperature to the nearest 0.5 degrees Celcius
4. Record this temperature on your datasheet.
5. Wait one minute and read the air temperature again. Record this temperature. If the difference is less than 0.5 degrees, you are finished, if the temperature is more than 0.5 degrees, wait one minute and read the thermometer again after 1 minute.

Clouds

1. Use the GLOBE Cloud Chart and complete the datasheet

