

Exploring temperature with different sample locations



Lesson source: <https://waterrangers.com/test/educational-resources/lessons/water-temperature-salinity-and-density/?v=5435c69ed3bc>

Location: In the field at a local water body.

Duration: 30 minutes

Objective: Collect water samples from various locations around a local water body to measure temperature using a thermometer and conductivity meter.

Groups: We recommend groups of 5 students maximum for this activity.

Materials needed

- Thermometer
- Conductivity meter
- Sample cups
- Reacher sticks
- Notepads

This activity involves looking for different spots around your local water body and taking various samples.

Steps

Observations

- Ask students to observe their surroundings.
 - *What do they see/notice?*
 - *What sounds do they hear?*
 - *What do they smell from where they stand/sit?*
- Hand out the notepads to students and decide as a class the weather from the previous day and the current weather. Get them to record this in their notepads.
- Based on students' observations, ask them to identify different water sources that could have different temperatures. These could include puddles, shallow and deeper locations, areas in the sunshine, and areas with or without vegetation.
- Use your discretion to determine if samples from students' suggested locations can be collected safely.

Recording air temperature

- Based on their observations, ask students to guess the air temperature.
- Provide each group with a thermometer.
- Instruct students to hang the thermometer under a tree or another shady spot where the testing is being conducted.
- Ensure the thermometers are at least 1.5 meters off the ground.
- Leave the thermometers there for 5 minutes before reading the values. You can choose to record the values after completing the water sampling.