



AP Biology 🧬 & AP Environmental Science 🌍

Welcome, Future Scientists!

Whether you're joining 10th grade AP Biology or 11th/12th grade AP Environmental Science, this summer assignment will give you a head start on authentic, hands-on science!

🧪 Assignment: Collect a Local Water Sample

This summer, your mission is to:

- Collect a pint-sized sample of water from a **lake, river, stream, or creek**.
- Record key data about where and when you collected it.
- Store your sample covered in your refrigerator until school starts.

We'll use these samples for our first lab in the **2025–2026 school year!**

🕒 What You'll Need

- A **pint-sized glass jar** with a tight-fitting lid (a clean salsa, pasta sauce, or mason jar is perfect)
 - We have some that can be picked up before the end of the year. See Mr. Anderson in WH209 if you need one.
 - A **marker or waterproof label**
 - A **smartphone** (for GPS coordinates)
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What to Do

1. Choose a collection site:

- Must be a lake, river, stream, or creek.
- It should be accessible and **safe**!

2. Collect your sample:

- Rinse the jar with water from your site before filling.
- Fill the jar about $\frac{3}{4}$ full (leave room for air).
- Seal the jar tightly with the lid.

3. Label your jar:

Use tape or a waterproof label to include:

- Your **full name**
- **Name of the body of water** (or best description)
- **Closest town or location**
- **Date and time** of collection
- **GPS coordinates** (instructions below!)

4. Store it:

- Keep the jar **covered and refrigerated** until the first day of school.
 - i. We recommend a brown paper bag.



How to Get GPS Coordinates



iPhone (Apple Maps or Compass App)

Option 1: Compass App

1. Open the **Compass** app (pre-installed).
2. Stand where you're collecting the sample.
3. Look at the bottom of the screen. Your **latitude and longitude** will be displayed.
4. Write those numbers exactly as shown.

Option 2: Apple Maps

1. Open **Apple Maps**.
2. Press and hold on your location.
3. A pin will drop — swipe up on the screen to see the coordinates.

Android (Google Maps)

1. Open **Google Maps**.
 2. Tap the **blue dot** that shows your current location.
 3. Your GPS coordinates (latitude and longitude) will appear at the top.
 4. Tap and hold them to copy, or write them down carefully.
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Example Label

Name: Jordan Rivera

Body of Water: Silver Creek

Location: Near Stillwater, MN

Date: July 14, 2025

Time: 3:15 PM

GPS: 45.0551° N, 92.8053° W

Reminders

- Don't wait until the last week of summer — rivers and lakes change conditions quickly.
- This is real science — your sample may help us analyze algae, bacteria, nutrient levels, and/or water chemistry.
- If you're traveling (in the United States), it **may be possible** to collect a sample from somewhere unique (please label it clearly!). Pay attention to local laws/regulations...we don't want you moving aquatic invasive species! If you are traveling out of the United States, it may be illegal to transport water from another country into the US.

We can't wait to dive into your data with you! Have a safe and science-filled summer! 🌞🌊

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