

Name _____

Today's date _____

Luke - Teacher from Water Rangers
Monica - Teacher from Watersheds Canada

Introduction

Today we are going to test the water in the Tay River to check its health. We will be using Water Ranger's tiny test kits to do this. The tiny kits have real scientific tools inside of them! By using these tools, you will become **community scientists**.



Inside of each kit:

- Field guide
- Note paper
- Thermometer
- Test strip container
- Sticker

The **thermometer** is used to check the temperature of the air and the water.

Why do we want to know the air temperature?

Why do we want to know the water temperature?

The **test strips** are used to check four different things in our water. They are:

- **Chlorine**
 - Pool chemical
 - Not natural
- **pH**
 - Acidic or basic
 - Sweet spot = **neutral**
- **Alkalinity**
 - Helps keep pH stable
- **Hardness**
 - Dissolved minerals
 - Well water



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Activity: Let's test the water!

STEP 1: Record your name, date, and water body name.

STEP 2: What is the weather like right now? What was the weather like yesterday?

STEP 3: Take out the thermometer and hang it in a tree or shady spot for a few minutes.

STEP 4: Take a water sample. Take out a test strip. Dip in the water, then wait 30 seconds for colours to change. Read the results using the chart and write down the results.

STEP 5: Put the thermometer in the water sample. Let it sit for about 2 minutes. Write down your results!

Conclusion

Congratulations, you are now community scientists! You...

- Used your senses to test a hypothesis
- Conducted water quality tests
- Learned that every water body is unique!

Parents and students! Head over to this web page for more information on what we did today:

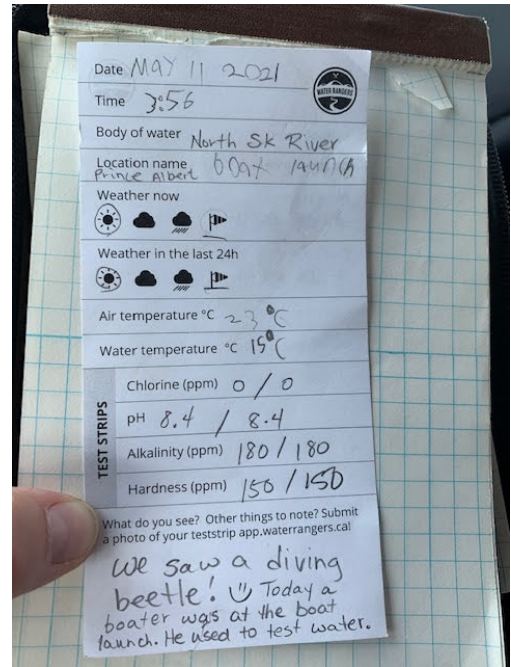
waterrangers.ca/students

Want to learn about local nature and wildlife? Borrow a Nature Discovery Backpack for free:

watersheds.ca/pbackpack

Glossary

- **pH:** stands for "potential of Hydrogen". pH is a scale from 0-14 of how acidic or basic something is, such as a body of water. Neutral pH is about 7 on the scale.
- **Alkalinity:** Alkalinity measures how water resists changes in the pH, especially changes that make the water more acidic. The higher the alkalinity, the better the water is at resisting change.
- **Hardness:** Hardness and alkalinity are related to each other and can change together. Hardness measures the dissolved minerals in the water.
- **Chlorine:** Chlorine is a chemical element used to purify water and is commonly used in pools. It is not natural in freshwater.
- **Community science:** Science that we can all understand, and all do together.
- **Thermometer:** a tool that measures the temperature of air and water. Our thermometers measure degrees celsius.



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