

MILWAUKEE WATERS INVESTIGATION

Activity #5 – Water Safety: Know Before You Go!

Purpose: This activity will briefly introduce students to water safety information, so they feel safe to connect to their local waterways.

Topics Reviewed: Water safety, weather, water temperature, water currents,

Grade Levels: 4th - 12th grade

Introduction:

Our local waterways are beautiful, offer recreational opportunities and yet can be very dangerous. If you are armed with water safety knowledge you can protect yourself and loved ones from harm.

The first step to enjoying our waters is by understanding their dangers:

- Always know the conditions of the weather and waves and never swim alone.
- Take a life vest or floatation device which can help to keep you safe.

Why is this so important?

- Nationwide, drownings kill more school-aged children each year than fires, tornadoes, school shooters and earthquakes **combined!** It is a solvable epidemic if children are taught water safety.
- Drownings are the 1st leading cause of accidental death in children ages 1 to 4 and the 2nd leading cause of deaths for children ages 5 to 14.
- Nearly 40 people drown in Lake Michigan every year, and even more from local rivers.

Conditions that impact safety in waterways.

- **Weather - Stay Dry When Waves Are High!**
Visit the Beach Hazard website to see how the water is moving the day you want to go to the beach. The swimming risks will either be low, moderate or high. High risks indicate that dangerous waves and currents are expected, and that conditions are life-

threatening. The dynamics of moving water is dependent on many variables and can quickly become unsafe.

- **Water Temperature – Think Twice Before Cold Water Or Ice (Red Cross)**

Check the [temperature of the water](#) before you go in. The water will often be much colder than the air temperature. Cold water can kill!

Check out these quick water temperature facts:

- Instant drowning can occur when a body goes into shock in cold water in late spring or early summer.
- Body heat is lost 25% faster in water than in air and muscle control can be lost in minutes.
- Hypothermia, when the body temperature is below 95 degrees, can occur when only in the water for a few minutes. When the body can't produce heat, it will eventually cause a person to become unconscious, and the heart rate to slow and eventually stop.

- **Water Currents**

- **River Currents, Rip Currents, and Structural Currents:** These powerful forces can pull even the strongest swimmers into dangerous, life-threatening waters. Visit the NOAA website to learn more about these currents and how to safely swim out of them if you're caught.
- **River Currents:** Rivers may seem calm, but conditions can change rapidly based on upstream factors. Different sections of the river can have varying current speeds, and small eddies or whirlpools may pull you under. Always stay alert to the weather, and test the currents by tossing a leaf or other floating debris into the water. Look out for areas with spinning water. Never swim alone, and keep a flotation device nearby in case someone needs assistance.
- **Rip Currents:** These powerful currents flow like rivers toward the shore and can pull swimmers further into the water as the wave recedes. **Solution:** Swim parallel to the shore, then at an angle back to safety.
- **Structural Currents:** These unpredictable and powerful currents can occur around piers, breakwalls, and similar structures. Large waves crashing over these barriers can sweep swimmers off. Stay clear of piers and breakwalls, especially during high-wave conditions! Structural currents can be dangerous on their own, but when combined with other currents like longshore or rip currents, they can

create a "washing machine" effect, shifting swimmers from one perilous current to another without a clear path to safety.

- **Water Quality – Look for Beach Advisory Signs on the Beach**

Local beaches are regularly tested by monitoring authorities to ensure the water quality is safe for swimming. They specifically test for high levels of *E. coli* bacteria. If the bacteria levels are too high, a Beach Advisory will be issued, advising you to avoid entering the water. Since bacteria levels can fluctuate rapidly, beaches may be closed temporarily. These bacteria are commonly found in the waste (feces) of most warm-blooded animals, including humans. Elevated bacteria levels can also result from factors like proximity to sewage treatment plants, combined sewage outfalls (which release untreated waste into the water), stormwater outflows, large populations of waterfowl, or malfunctioning septic systems. Beaches may also be closed for other safety reasons, such as the presence of toxic algae blooms or chemical spills.

Hey Water Rescuers:

Did you know that many rescuers often drown trying to save drowning victims?

Strong swimmers beware!

Even YOU can quickly be overcome in powerful, non-stop waves or currents.

Are You Struggling in the Water?

- Stay Calm
- **FLIP** over on your back
- **FLOAT** on your back and gain your strength.
- **FOLLOW** a safe path to swim to shore.

Is Someone Else Struggling in the Water?

- First, alert a lifeguard if present and call 911. If a ring buoy is available tell the 911 the ring station number.
- Throw a ring buoy, life vest or floatation device to the person.
- If you try to rescue someone, use a ring buoy or take a floatation device with you or wear a life vest - it just may save



**Ring Buoy
Stations
on local
rivers and
Lake
Michigan.**



Water Safety Activity:

- Review: Discuss details of this flyer with students and show them a few videos below.
- In-class presentation or Safety Training at MPS Schools: Contact [Milwaukee Recreation](#) at 414-647-6067.

Online Water Safety Resources:

1. Red Cross: [Water Safety information and online classes](#)
2. The Great Lakes Surf Rescue Project: [Water Safety Tips](#)
3. Milwaukee Recreation: [List of resources](#) to promote a water safe community.
4. Milwaukee Riverkeeper: Link to finding and enjoying local beaches: [Swim Guide App](#)
5. National Weather Service: [Great Lakes Beach Hazards: Swimming Safely](#)
6. NOAA: [10 Beach Dangers](#)
7. WaterSAFE MKE: [Milwaukee Area Ring Buoy Stations](#)
8. National Weather Service: [Great Lakes Water Temperatures](#)

Short Videos:

1. National Weather Service: [Great Lakes Beach Safety](#) -
2. Great Lakes Surf Rescue Project: [The Deadliest Great Lake](#)

Sources: Milwaukee Recreation, Milwaukee Riverkeeper, NOAA, National Weather Service, WaterSAFE MKE, and The Great Lakes Surf Rescue Project