Clean Getaway

Learning Objectives

Students will:

- Identify their drainage basin.
- Describe the path water takes from their school or community to the ocean.
- Identify human activities that threaten ocean health.
- Identify five ocean wildlife species they are connected to through their watershed.

Method

In this active simulation game, students work in teams to deliver a container of clean water from an inland community, down a river, to an ocean creature.

Materials

- Instruction sheet (enclosed)
- Paper and pencil for scoring
- Stopwatch
- Two 25-40 metre ropes
- Obstacles such as benches
- Six or more hula hoops in two colours

- 20 or more coloured sponges
- Measuring cup
- Several recycled four-litre ice cream buckets
- Four two-metre-long cords (marked at half metres) for each ice cream bucket

Background

No matter how far we live from the ocean, anything we do to affect water and air quality will also affect ocean health. Toxic chemicals, sewage, and silt added to the water passing through our community often find their way to the ocean. These contaminants can originate anywhere on the surrounding lands—in our homes, industries, schools, landfill sites, farms, and forests.

Ocean threat include:

- **Contaminants** – sewage, persistent organic pollutants (POPs), heavy metals and oil

- **Habitat alteration** – the loss of both coastal and inland habitat

- **Invasive Species –** species accidentally carried in the bilge water of large freighters

- **Climate change –** impacts both marine and terrestrial ecosystems

- **Overfishing –** commercial fishing and global ship traffic

- **Marine debris** – plastics and litter

For additional resources visit:

CanadianWildlifeFederation.ca/Education

In Advance

- Set up the playing field as per the instruction sheet enclosed.

  o For your "finish zone," identify ocean wildlife related to your drainage basin.

  o Try to represent ocean hazards and safe zones from the watershed the students have studied. Students may also research and design their own course for others.

- Create your water buckets by following the steps for "How to Make the Water Bucket" on the instruction sheet enclosed.

Activity

1. Explain the goal and rules (as per the instruction sheet).

2. Divide the class into teams of four:

   - The teams delivering clean water to ocean wildlife are "Water Champions."

   - The teams contaminating the water are "Human Hazards".

3. Let the teams practice carrying water in the water buckets using the hand lines.

4. Play the first round. A time limit of three minutes will keep the game moving.

   - "Water Champions" will take the buckets by the hand lines and move down the course.

   - "Human Hazards" must throw sponges from within a hazard hoop. They can, however, go anywhere to retrieve sponges.

   - When "Water Champions" stop in a safe zone, they can shorten the hand lines by advancing their grip by one-half meter (as marked). Doing this will make carrying easier, but if students have new contaminant sponges in their buckets, they must lengthen their ropes.

5. After each round, record times, measure the water delivered, and count the contaminants (sponges) in their buckets.

6. Have the teams switch roles for the second round. Continue recording the results.

   - Play as many rounds as desired.

7. When the game is complete, measure success and identify:

   - The best protector of water quantity

   - The team with the least contamination

   - The fastest team

8. Compare results in terms of timing, quality, and quantity. Ask students:

- What ocean wildlife do we affect in this drainage basin?

- What contaminants were delivered to ocean wildlife? What effect do they have?

- What real human threats to water and ocean health arise in your community and watershed?

- What can you do to limit threats?

Extensions

- Have the students design a game "course" using their research on their own watershed.

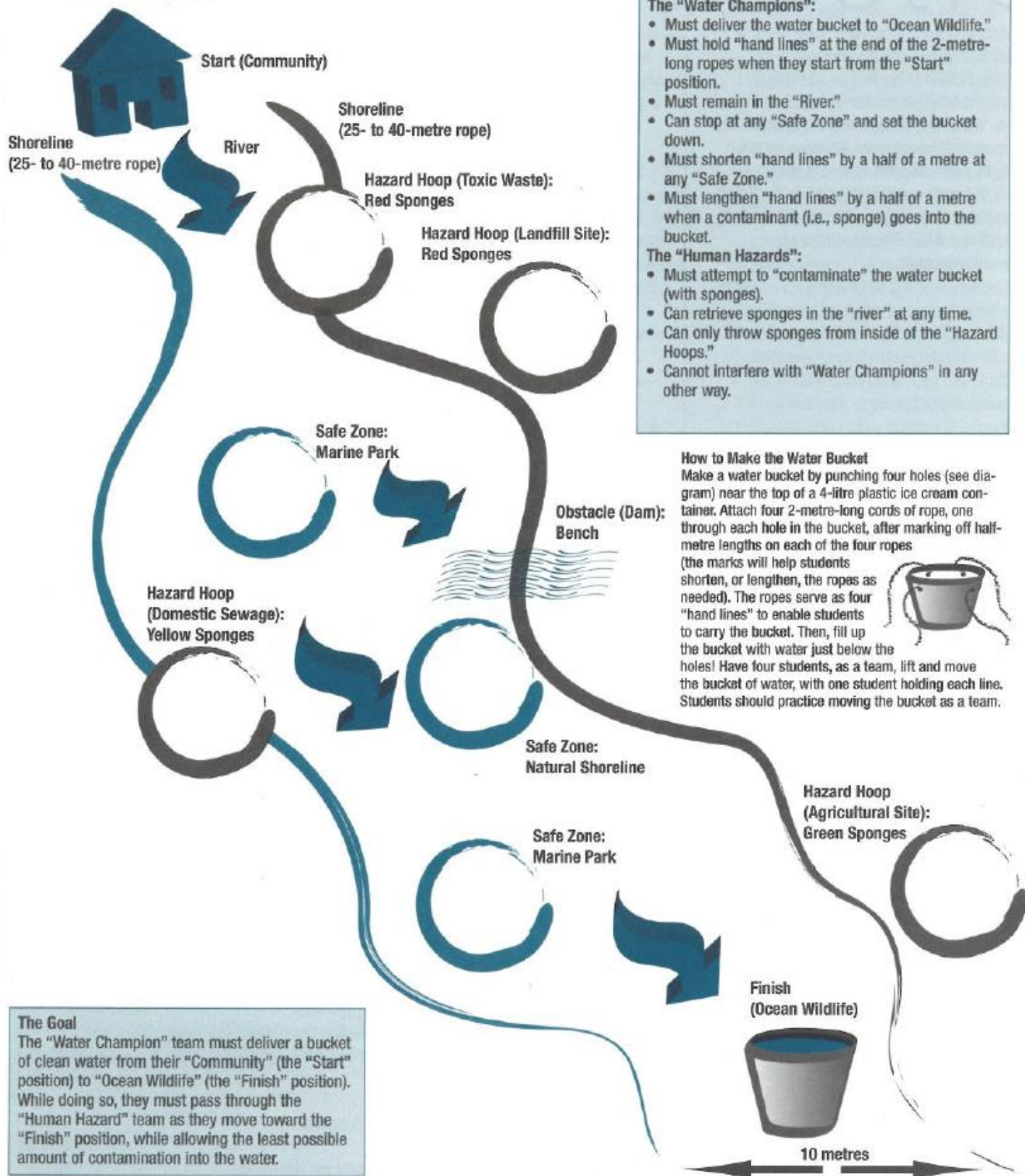- Run the game as part of a school **Oceans Day Festival**.

Tips

- This is an active simulation game, best done outdoors.

- Observe the students for evidence of good team skills (e.g., communication, co-operation, planning).

CANADIAN WILDLIFE FEDERATION

Clean Getaway

Start (Community)

Shoreline (25- to 40-metre rope)

River

Shoreline (25- to 40-metre rope)

Hazard Hoop (Toxic Waste): Red Sponges

Hazard Hoop (Landfill Site): Red Sponges

Safe Zone: Marine Park

Obstacle (Dam): Bench

Hazard Hoop (Domestic Sewage): Yellow Sponges

Safe Zone: Natural Shoreline

Safe Zone: Marine Park

Hazard Hoop (Agricultural Site): Green Sponges

Finish (Ocean Wildlife)

10 metres

Rules

The "Water Champions":
- Must deliver the water bucket to "Ocean Wildlife."
- Must hold "hand lines" at the end of the 2-metre-long ropes when they start from the "Start" position.
- Must remain in the "River."
- Can stop at any "Safe Zone" and set the bucket down.
- Must shorten "hand lines" by a half of a metre at any "Safe Zone."
- Must lengthen "hand lines" by a half of a metre when a contaminant (i.e., sponge) goes into the bucket.

The "Human Hazards":
- Must attempt to "contaminate" the water bucket (with sponges).
- Can retrieve sponges in the "river" at any time.
- Can only throw sponges from inside of the "Hazard Hoops."
- Cannot interfere with "Water Champions" in any other way.

How to Make the Water Bucket

Make a water bucket by punching four holes (see diagram) near the top of a 4-litre plastic ice cream container. Attach four 2-metre-long cords of rope, one through each hole in the bucket, after marking off half-metre lengths on each of the four ropes (the marks will help students shorten, or lengthen, the ropes as needed). The ropes serve as four "hand lines" to enable students to carry the bucket. Then, fill up the bucket with water just below the holes! Have four students, as a team, lift and move the bucket of water, with one student holding each line. Students should practice moving the bucket as a team.

The Goal

The "Water Champion" team must deliver a bucket of clean water from their "Community" (the "Start" position) to "Ocean Wildlife" (the "Finish" position). While doing so, they must pass through the "Human Hazard" team as they move toward the "Finish" position, while allowing the least possible amount of contamination into the water.