

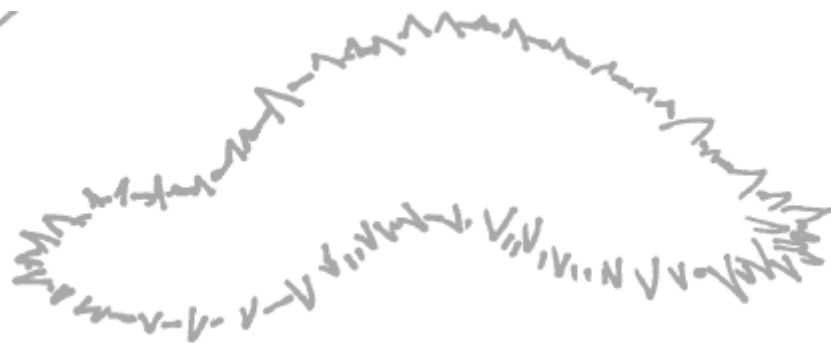
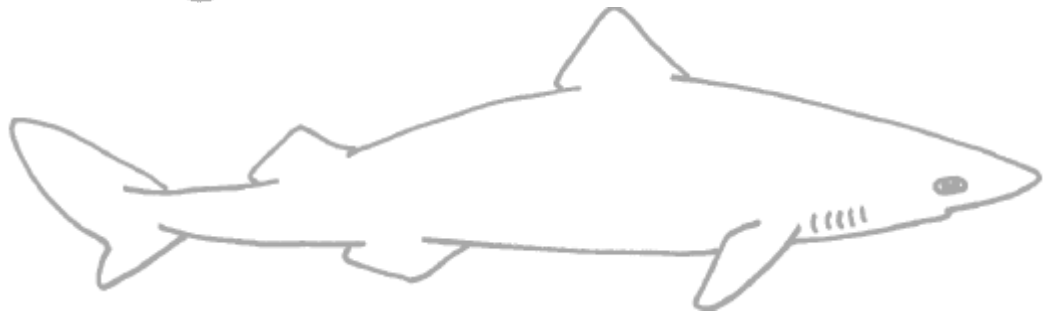
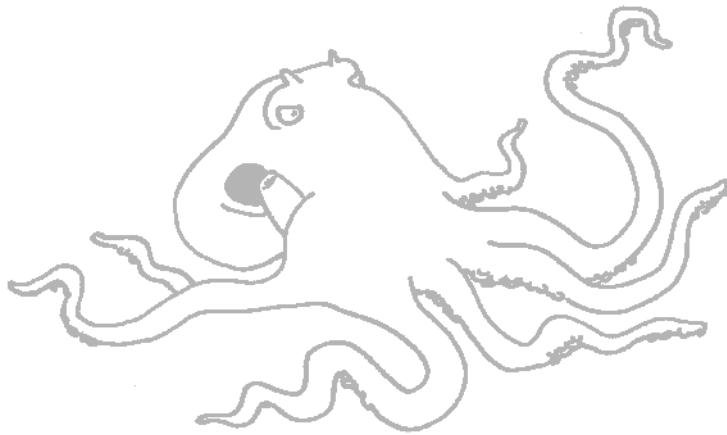
## Water Wonders Classroom Activities

### PRE VISIT ACTIVITIES

These classroom activities will help prepare your students for the upcoming Aquarium visit.

#### 1. Name tags

Help our volunteer educators get to know your students. Have your students create name tags for their visit to the Aquarium. Your class can colour and cut out these shapes and write their names on them in large print.



#### 2. What your class will see and do during their Aquarium visit

Talk about your upcoming visit to the Aquarium- what your class will do and what they might expect to see. Use part 2 of this package guide as a resource.

## Water Wonders Classroom Activities

### 3. Water Wonders Logbook

Help prepare your students for their aquarium visit by getting to know some of the animals they will encounter throughout their visit to the aquarium and how they can help keep them safe. Create a logbook of some of the animals that you will see in the aquarium and some ideas of how you can help them.

#### Objectives

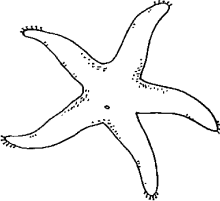
- Learn about some of the animals in the aquarium
- Practice written language skills
- Describe characteristics of animals
- Describe the needs of animals
- Prepare students for the aquarium and help students absorb more while at the aquarium.

#### Materials

- construction paper, white paper
- scissors
- glue
- pencils
- string
- photocopier
- hole punch
- pictures of marine animals

#### Procedure

1. Discuss some of the animals you will see in the aquarium and why it is important to keep them safe.
2. Use your part 3 of your educator's guide to select between 6 and 10 animals that the students will see in the aquarium. Select a wide variety of animals.
3. Create a template on white paper that can be photocopied that will look something like this:

Picture Here	Example:
	
Name: _____	Dolphin
What do I eat: _____	Fish
How do I move: _____	My tail goes up and down
Where do I live: _____	Open ocean
How you can help me: _____	Eat tuna that is dolphin friendly

## **Water Wonders Classroom Activities**

4. Photocopy enough templates so each student has one per animal.
5. As you discuss each animal, have student's copy down answers.
6. Get students to glue fact sheets to a piece of construction paper as a border and glue a picture of each animal on to the sheet (Use the Educators Guide pictures if nothing else).
7. Whole punch each card in two spots and tie the 6-10 cards together with string.

Have each student bring their logbooks to the aquarium so they can check off each animal as they see them or when they get back to the classroom.

## **Water Wonders Classroom Activities**

### **4. Animal Encounters**

Help your students get prepared for their visit to the aquarium by getting to know some of the animals they will encounter during their visit. Have each student pick an animal that they might find at the aquarium (see your part 3 of your Aquarium educator's guide for ideas) and have each student prepare a poster to present to the class with a few basic facts about their animal.

#### **Objectives**

- Learn about some of the animals you will encounter
- Share with others information obtained
- Classify animals into groups
- Describe the characteristics of animals and their environments
- Describe the needs of animals in their environment
- Practice writing and communication skills
- Prepare students for the aquarium and help students absorb more while at the aquarium

#### **Materials**

- Poster or construction paper
- Pencil Crayons
- Library or computer lab

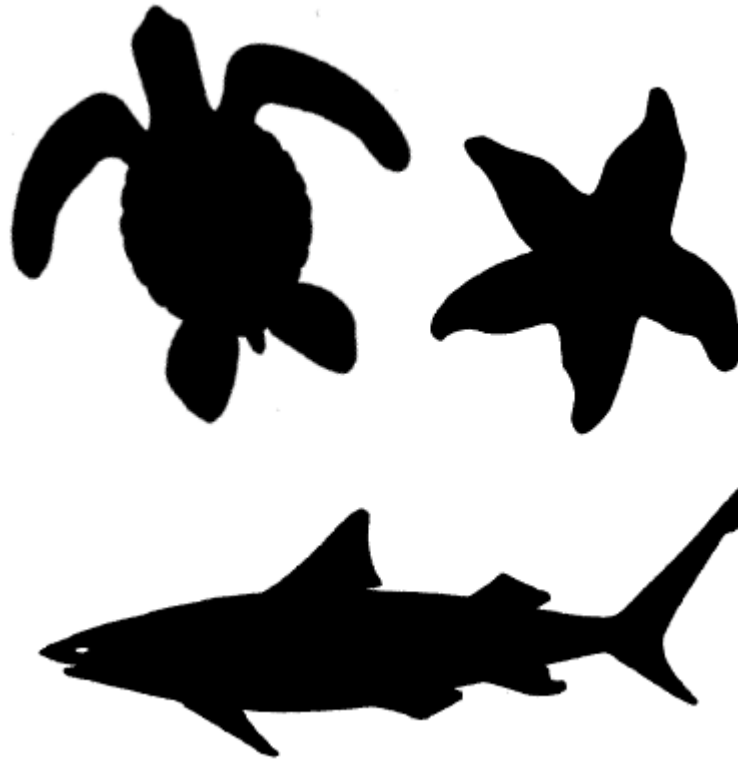
#### **Procedure**

1. Use your educator's guide to make a list of animals that your students can research. If you have been to the aquarium before you can add other animals you know of.
2. Have each student select an animal from the list to do their presentation
3. Book the library or computer lab to research the animal chosen. Have the students try to answer two or three questions. Some possible questions are:
  - i. Where does your animal live?
  - ii. How/what does your animal eat?
  - iii. How big is your animal?
  - iv. How does your animal breathe?
  - v. How are people connected to your animal?
  - vi. How does it protect itself?
  - vii. How does it move?
4. Have each student present their poster to the class and tell the class about their animal.
5. See if the class can group animals together by how they move, breathe, etc.

**Water Wonders  
Classroom Activities**

**5. Amazing aquatic animals  
(K)**

Cut sponges into the shapes of sea stars, sharks or turtles. Your students can dip their sponges into paint and then press them onto brightly-coloured construction paper to create an aquatic scene.



## **Water Wonders Classroom Activities**

### **POST VISIT ACTIVITIES**

These classroom activities will help reinforce themes introduced during your Aquarium visit.

#### **1. Fingerprint Fish Scale Puppet**

Students create their own fishes, modeled after the fishes they saw at the Aquarium. They can use their fishy creations to tell "puppet" stories about these animals' lives.

#### **Objectives**

- learn about the appearance and behaviour of a variety of animals
- distinguish between make-believe and reality
- practice interacting together in a successful way
- follow simple directions
- reinforce what the students learned about living animals, specifically fishes, during their Aquarium visit

#### **Materials**

- paper
- ink pads or finger paint
- large piece of cardboard
- popsicle sticks
- scissors
- glue

#### **Steps**

1. Read a story to your class about fishes.
2. Discuss the characteristics that fishes share and discuss the types of fishes your students saw during their visit to the Aquarium. Use the Teacher's Information section for background material.
3. To make fingerprint fishes, have students paint the outline of a fish, its head and gills. To complete their fishes, students then add fingerprint fish scales by pressing their fingers into non-toxic ink pads or finger paint and then onto colourful paper.
4. Students cut out their fishes and glue popsicle stick handles to the back.
5. Students cut a "window" in a large piece of cardboard and prop it up to make a puppet theatre.
6. Have students perform short puppet shows for each other describing how and where their fishes live, what they eat and how they swim.

## **Water Wonders Classroom Activities**

### **2. Stream Keeping**

Help teach your students the importance trying to keep our streams and waterways clean for animals to live in. Each student will make a poster of things that we shouldn't let go down the drains so we won't hurt Sammy the Salmon's home.

#### **Objectives**

- Solidify the lessons that were learned at the aquarium.
- Describe the basic needs of animals.
- Describe ways to rethink, reduce and recycle.
- Describe how our actions affect animals.
- Learn that caring for the environment is important
- Learn that our actions have large impacts on our environment

#### **Materials**

- White paper
- Pencil Crayons

#### **Procedure**

1. Discuss where Sammy the salmon lives and how our drains connect to the ocean and rivers.
2. Discuss how chemicals in the water can hurt or kill the animals that live in them.
3. Pick four things that the class can try to do in their homes to protect Sammy's home.
4. For each idea/item selected draw a picture of what not to do, and what is ok to do. You could also bring in a few examples of each item to show your students. Example: Household cleaners. Draw a circle with a line through it over harsh/toxic cleaners like ammonia and draw a green circle around biodegradable cleaners. Other examples include:
  - i. Hair trimmings or shavings in the garbage not down the drain.
  - ii. Wash car on lawn not driveway near storm drain.
  - iii. Shampoo with biodegradable shampoo
  - iv. Pickle juice/vinegar poured onto lawn instead of down the drain.

#### **Go One Step Further!**

Contact your community advisor from Fisheries and Oceans Canada to mark Storm Drains in your local community. Have your class mark storm drains showing that the drain leads to a fish habitat.

Contact Stream Keepers and get your class to clean up the garbage around a fish stream habitat.

## **Water Wonders**

### **Classroom Activities**

#### **3. Backyard Buddies**

Help the animals in your neighbourhood and your local waters by cleaning up your school and homes. Students will introduce a recycling program into both their homes and your classroom. Share with your students the implications of recycling and reducing waste, etc and how they can affect both aquatic and terrestrial animals alike.

#### **Objectives**

- Describe interactions between animals and plants
- Classify similarities between animal life cycles
- Describe changes and how they affect different animals
- Describe recycling and how it can affect animals and plants
- Describe how our choices can affect animal and plant lifecycles

#### **Materials**

- 4 different garbage bins with labels
- 1 bucket with a lid that can seal
- Chart to keep track of class efforts
- Chart for home record keeping
- Compost bin (Contact the GVRD for outdoor compost bins at a small cost)

#### **Procedure**

1. Discuss with class how the five R's (rethink, refuse, reduce, reuse and recycle) make a difference to both plants and animals. Discuss how the 5 R's affect the animals you saw at the aquarium as well as the animals in their own backyards. (Example: recycled paper instead of new paper means less trees cut down, which means homes for many animals as well as keeping river banks in place, etc)
2. Get the class to brainstorm ways to rethink what they use, refuse or reduce what they use.
3. Start a class recycling program, or a school program. Get garbage bins and label them for paper, plastic, metal, and garbage. Use the bucket with the lid for compost material (make sure no meat goes into it). Teach students how to use them. You can assign students to different tasks.
4. Keep a class chart on the wall measuring how much of each type of material is recycled instead of put in the garbage (you can do it by weight, number of full bins, how high the garbage is in each bin each day, etc). At the end of each day, record how much has been recycled instead of thrown into the general trash.
5. After a couple of weeks, get the students to start the program in their own homes. Have each student keep track on a chart in the same way the class is.
6. After a month or two bring all the records together and fill in a big chart to see how much trash has been recycled.
7. Go one step further and clean up the schoolyard once a week to see how much can be recycled from around the school.
8. Towards the end of the year the compost should be close to becoming topsoil. Take the students outside to the compost bin and show how composting is used to help the plants be producing topsoil.

## **Water Wonders Classroom Activities**

### **4. Sammy Salmon's Travels**

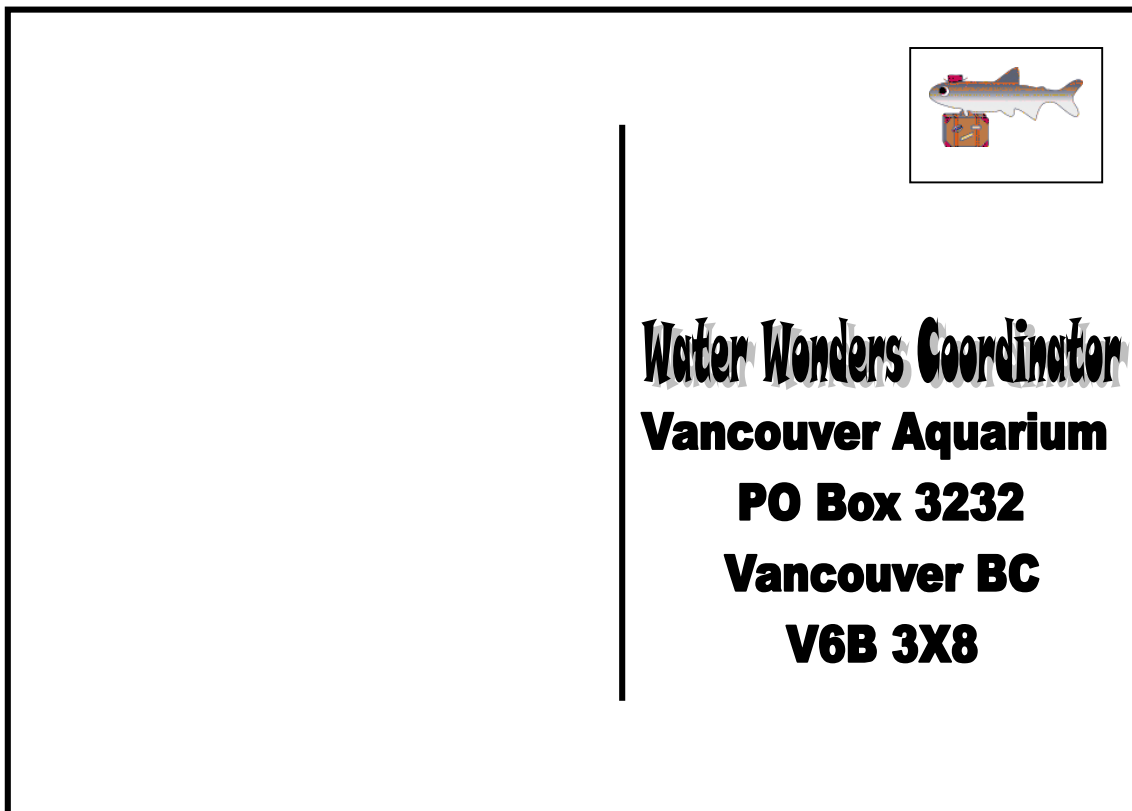
This activity is intended to review and reinforce the themes introduced during the Water Wonders school program. Students will imagine what it would be like to be *Sammy Salmon*, whom they meet during the puppet show for Water Wonders. *Sammy Salmon* has just returned from the ocean on his great ocean migration and wants to report on his adventures to his friends; he is really keen to share all that he has learnt about the other animals that live in the ocean.

You may choose to mail these postcards back to the Aquarium or display them in your classroom.

#### **Procedure**

- Have students recall what they have learned during Water Wonders about the marine animals which inhabit the Pacific Ocean. Brainstorm places that Sammy Salmon may have visited during his ocean migration and what animals he may have encountered along the way. Consider food they eat, where they live, predators they may deal with, and the dangers that they face in their day-to-day lives.
- Have students devise conservation messages, something that would highlight steps they can take towards helping marine animals stay healthy. For example, throwing their trash in the garbage can, or bringing their lunch to school in re-useable containers.
- Students may choose to write their own story, do the postcard as a class, or work in small groups. You may encourage writing an initial draft.
- Illustrations in the front of the card are entirely up to you and your class. Potential images may include predators, landscapes, maps, salmon, marine invertebrates, and marine mammals.

If you choose to mail in the postcards, you may include a brief lesson on postage and sending letters. Another option is for students to design their own stamp, attach it to the postcard with glue, and submit postcards as a class in a large envelope.



## **Water Wonders**

### **Classroom Activities**

#### **5. Litterless Lunch**

Parents often pack lunches with disposable plastic bags, aluminum foil, or wax paper, or they purchase single-serving items, such as fruit cups or juice boxes. Much of the trash we generate comes from food packaging, and lunch foods are no exception.

In fact, it is estimated that on average a school-age child using a disposable lunch generates 67 pounds of waste per school year ([www.wastefreelunches.org](http://www.wastefreelunches.org)). An old-fashioned "brown bagger" can conceivably dispose of over 14, 000 paper lunch bags in their lifetime ([www.saveonfoods.com](http://www.saveonfoods.com)).

A litter-less lunch is one where nothing needs to be thrown away. For example, a student could pack a lunch in a reusable lunch box or cloth bag with re-usable plastic containers.

#### **Procedure**

1. Eat lunch in the classroom on a rainy day, and ask students to measure the amount of waste.
2. Discuss what it means to create a lunch with no waste. Why is it important?
3. Brainstorm with the class what a litterless lunch looks like?

#### Avoid:

- × Brown paper bags
- × Plastic sandwich bags
- × Disposable single servings
- × Styrofoam cups
- × Individually packaged snacks

#### Instead choose:

- ✓ Reusable lunch kits or bags
  - ✓ Reusable plastic containers: Divide a larger batch of snacks or a large container of yogurt into your own single servings.
  - ✓ Reusable drink bottles: Buy larger sizes or concentrated forms of beverages and dispense them into your own refillable thermos or drink container.
  - ✓ Snacks in minimal wrapping
  - ✓ Recycling: Return your deposit container at a redemption centre. Place your clean metal, rigid plastic, plastic bags, paper, and cardboard in the blue bins at Recycling Depots around the region.
  - ✓ Pack a cloth napkin instead of a paper napkin.
  - ✓ Pack stainless-steel utensils instead of using disposable plastics.
  - ✓ Compost your fruit and vegetable scraps. Take them home or consider setting up a worm composting bin at school.
4. Select a day to have a litterless lunch in the classroom. Send a letter home informing parents about the day and possible lunch alternatives.
  5. Measure the waste, and compare it to the lunch waste before the class discussed the importance of a litterless lunch.

## **Water Wonders**

### **Classroom Activities**

Follow up activities:

- Ask students to create a collage of things that create a litterless lunch.
- Have the students set a personal goal regarding their lunches, and create a chart so they can track it for a period of time.
- Compose a litterless lunch song or story about how they can make a difference.
- Write about how students can help reduce the litter in their lunches at home.

## **Water Wonders Classroom Activities**

### **6. Dear Aquarium Volunteer**

Have your students write letters, with pictures, to the Aquarium Volunteer Educators who teach the Water Wonders School Program. Your students can tell the Volunteers what they like most about what they saw, touched or heard during their program. Aquarium Volunteers love to receive mail.

#### **Objectives:**

- Practice general language arts written skills
- Learn about the physical characteristics and behaviour of a variety of animals
- Teach the value of direct observations
- Reinforce what the students learned during their Aquarium program

#### **Materials:**

- Story books
- Pencils, crayons
- Paper
- Large envelope for all the letters and pictures
- Postage

#### **Steps:**

1. Discuss your students' visit to the Vancouver Aquarium. What did your students learn? What did they learn that they didn't know before? What surprised them the most? What animal inspired them to learn more about?
2. Have the class read about the ocean.
3. Ask your students to write letters and/or draw pictures to the Volunteers. What did the students like most? What did they learn?

Address:

Volunteer Educators  
Vancouver Aquarium  
PO Box 3232  
Vancouver BC  
Canada  
V6B 3X8