



LESSON 8

Marine Conservation

Grades 4 to 7

Objectives

- Plan to do one action that is an example of conservation.
- Explain what conservation means and understand why it is important.
- Give examples of places that are protected.
- Give examples of some conservation action you already do at home or school.

Materials

Book: The Ocean Book by the Centre for Marine Conservation (ISBN 0471-50973-6)

Book: Science is... by Susan V. Bosak. “The Big Picture” on page 388.

Concepts

- Understand that decisions you make affect the world around you.
- Conservation can be of a place or a resource.
- Garbage is harmful to ocean animals.
- Over 80% of garbage found on beaches comes from land.

Activities

1. Introduction

If I don't know what is in this paper bag, how should I take care of it?

A: I would handle it carefully because I don't know if there are living things in the bag or something breakable.

Let's say the bag is full of candy. How could you estimate how much candy is in the bag without opening it or picking it up?

A. You would just have to guess because you wouldn't have any idea of how much candy was in the bag.

How is the ocean like this paper bag?

A: We can't see the whole ocean so we don't know how many plants and animals live there.

What would happen if the teacher said only one row of students could have as much candy (or fish) as they want before finding out how much was there?

A: It wouldn't be fair. There may not be candy (fish) for anyone else. There may not be many fish left.

How can people make sure that this doesn't happen?

A: Make rules ahead of time. Find out how many fish there are. Limit the number of fish that can be taken. Make sure there is enough fish left to reproduce and maintain fish populations.

What happens if people think they will never run out of something?

Introduce conservation and stewardship from page 90 of The Ocean Book.

Captain Jacques Cousteau said: “*When dolphins are threatened by an animal of greater strength and size (a large shark, for instance) they come together. A pack of dolphins will suddenly form a tight group, dive below the shark, and drive their blunt noses into its belly, one after another. The shark is defeated by intelligence. The dolphins save themselves by joining together to do what they must. You and I must save the health of our water planet and all creatures on Earth. My dream is that, like dolphins, we can intelligently join together and work together to save our planet and ourselves.*”

Discuss what Captain Cousteau meant when he said this. What can we do as individuals? It's also important for students to learn more about the ocean.

3. Doing Things

Activity from Science is... “The Big Picture” on page 388.

Ask students to think of at least 3 things that they want to do or need to do. Don't say what



these have to be. Students should write down each thing and write beside it when they think they should do it. On the board, label columns: tomorrow, next week, sometime this year, in my lifetime, in my children's lifetime. Ask students for their activities, list them on the board and put checks in columns when each activity should be done.

- Where are most of the dots?
- Why do you think most checks are in the first 3 columns?
- How easy is it to think of things many years from now?
- Why do we need to think ahead?

Talk about planning into the future.

4. Stewardship and Conservation

Talk about what it means to be a steward or stewardess. What does it mean when it has to do with the earth?

A: Stewardship of the earth is care taking of the earth and ocean.

Conservation is the act of keeping or protecting from loss or injury, the preservation of natural resources. What does that mean? Can you give some examples?

A: By only taking crabs that are over 6 inches and only keeping male crabs only, people can help ensure that there are crabs every year. What about fish?

What would happen if people took any size of crab and took males and females?

A: There may not be many to reproduce for years to come.

What does a conservation officer do?

A. A conservation officer makes sure that people are not doing anything illegal. For example, they can check to see that people haven't taken more fish than they should, check to see that people do have their fishing licence etc and they can charge people who break the law. Teachers may want to invite a conservation officer into the classroom to

speak to students and describe what he does in his job.

Conserve means to keep from loss, decay or depletion. Can you think of some examples of times that you conserved something?

Discuss Marine Protected Areas, National Parks, Provincial Parks. Why do we have them?

A. We have these areas so that there are some special areas that are protected for now and for future generations. Some activities are not allowed in an area that is protected. For example no oil drilling could occur in the proposed Gwaii Haanas National Marine Conservation Area Reserve. In a provincial park, plants and animals cannot be collected.

What is conservation? Why should we care?

A. If for no other reason, what happens to animals and the environment will happen to us too. We are all connected. We need to be aware of where things come from and where they go when we are finished with them.

5. The Three 'R's

What can be reduced? reused? recycled? What can we do without?

Reduce – Buy only what you need. Don't use a bag from the store if you only have one item. Bring your own dishes to a potluck instead of using disposable plates. Write on both sides of the paper before recycling it. Reduce the amount of garbage you have by having a composter for your garden.

Re-use – Keep using plastic containers again and again, rather than using plastic wrap or bags that are thrown away after one use. Gift wrapping paper can be used more than once. Grocery bags can be used for other things. Use re-chargeable batteries. Bring your own "to go" mug instead of using a disposable cup.



Recycle – It takes less energy to recycle an aluminum can than to make a new one. Recycle what you can. On Haida Gwaii you can recycle paint, batteries, magazines, newspaper, office paper, cardboard, and plastic milk cartons.

Conserve – Conserve water by turning off the tap when you brush your teeth. Conserve paper by writing on both sides before recycling it. Conserve electricity by turning it off when you leave the room or play outside – No electricity needed!

6. Making a Difference – Sea Star Story (*source unknown*)

Once Jim could see far in the distance a person on the beach. She seemed to be throwing things into the sea. As he got closer he realized she was tossing sea stars back into the water. They had been tossed above the high tide mark and if they hadn't been put back in the ocean they would have died.

Jim went up to the girl and said, “That won't make any difference.” She tossed another sea star into the ocean and said, “It did for that one,” and continued doing what she was doing.

How can one person make a difference?
A. Every little thing makes a difference. And it adds up. Small acts add up.

How many people are in this class? If every person who went to the beach picked up one piece of garbage, think how much better would the beach look.

Examples of actions people can do:

- Dispose of garbage properly and do not litter.
- Cut plastic 6 pack holders so birds and other animals do not get caught in it.
- Pick up fishing line and plastic left behind and dispose of it properly in the garbage.

It might make a difference for one animal because I cut up 6 pack holders or pick up

plastic or fishing line left behind.

Conclusion

- What is something you have done that was good for the ocean? What is something you will do?
- What do you love about the ocean? What is worth preserving? Favorite places? Draw your favorite ocean creatures.

Extension Activities

- Draw a “Wanted Alive!” poster of favourite your ocean creatures or creatures that are endangered, threatened or of special concern – for example abalone (Threatened), Southern residents orcas (Endangered), Great Blue Heron (of Special Concern). A suggestion for the wording on the poster might be: Reward! Your grandchildren will thank you.
- Make a poster about a conservation issue from the point of view of an ocean creature.