

DROPS OF KNOWLEDGE FOR RIVERS OF CHANGE



GLOBAL TEACHING
AND LEARNING MATERIAL

A hands-on guide to teaching
and learning about
water, sanitation, hygiene,
and the environment

SWAROVSKI
WATERSCHOOL

ACTIVITY 8.2: WATER AND THE PROBLEM WITH TOO MUCH PLASTIC

“Waste” is any unwanted material—rubbish, trash, garbage, or junk. Solid waste material that has found its way to the marine environment is called “marine debris.” It is known to cause the injury and death of numerous animals and birds, because they either become entangled in it or mistake it for food and eat it. In many places, uncollected waste is often mixed with human and animal excreta and dumped in the streets indiscriminately, causing drains to clog. This contributes to flooding, the breeding of insects and rodents, and the spread of diseases.

To rethink overconsumption, we must stop thinking of the Earth’s natural resources—fossil fuels, water, and trees—as a never-ending supply. Recycling plays a crucial role. If we do not want to exhaust our supply of natural resources, the three “Rs”, Reduce, Reuse, Recycle—need to become second nature to us in daily life. This will help us minimize and prevent further environmental damage, avoid unnecessary use of our natural resources, conserve energy, and lower pollution levels.

Time: 60 minutes / **Thematic Areas:**

Environmental Education / **Goal for**

Learning: Understand sustainable consumption and explore ways to avoid waste.

DID YOU KNOW? Plastic can be recycled and reused; for example, you can wash plastic forks and plates to use them again. Some countries have programs to recycle plastic by melting it down and making new things out of it. But less than 3% of plastic bags around the world get recycled today. ¹

In Austria alone, researchers estimate that 4.2 tons of plastic are washed into the Black Sea by the Danube River every day. ²

SOURCE: (1) Douglas, Carole, “Theo and the Giant Plastic Ball,” United Nations Environment Programme, December 2004. Open PDF from: <http://wedocs.unep.org/handle/20.500.11822/8466>.

(2) Lechner, et al., “The Danube So Colourful: A Potpourri of Plastic Litter Outnumbers Fish Larvae in Europe’s Second Largest River,” Environmental Pollution, May 2014, vol. 188, no. 100, pp. 177–181.



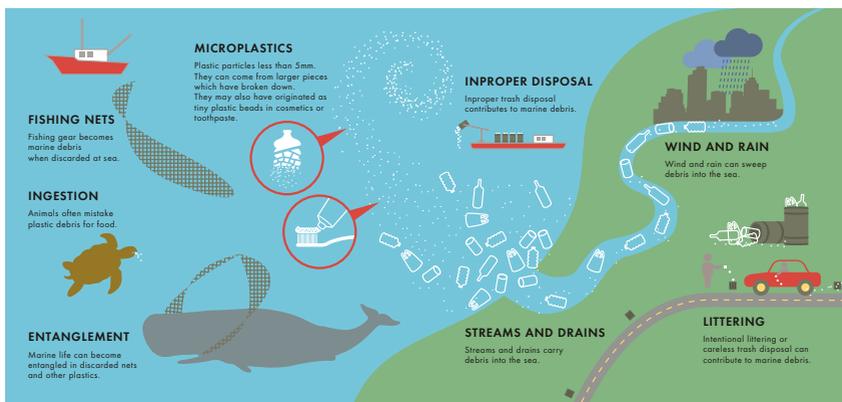
Materials: None

ACTIVITY STEPS:

- 1 Explain some of the challenges related to plastics and water to the students

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- 2 Ask them to look around their homes and communities and notice items made from plastic, then bring a list of these items back to school to be shared with the class.
- 3 Work with students to collectively plan local action. This could include:
 - Organizing a cleanup of your school, neighborhood, or local waterway (a river, stream, pond, or lake).
 - Keeping a basket or canvas bag at home, on your bicycle, or in the car so it is always available if you go shopping; consolidating purchases from different stores into one bag; and reusing bags for subsequent shopping trips.
 - Asking your favorite local shops to stop giving out plastic bags for free or to offer money back for not using them, and encouraging the shops to provide recycling drop-off bins and to stock products made from recycled bags.
 - If your town has a recycling program, making sure you recycle your waste plastic. If not, you could encourage your family to dispose of waste properly. If you do not have garbage collection services, bury plastics deep in the ground (burning plastic creates toxic fumes).
 - Joining an environmental club to learn more about the plastic menace and how you can make a difference.



Source: <http://www.oneworldocean.com/blog/entry/plastics-breakdown-an-infographic>

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OBSERVATION AND DISCUSSION:

Have students brainstorm ways to reuse material found in their homes and schools. Share these ideas, and the importance of reusing and reducing as a whole, with the community.

Discuss how plastic is hazardous to wildlife and ways improper disposal can be avoided to help protect animals living in the ecosystem.



DEAD ALBATROSS



TURTLE

UNTANGLING PLASTIC WASTE
FROM MARINE LIFE