

Plastic Bags Contest – Bangladesh verses USA

Jane Watson – Starmont Schools, Arlington, Iowa

Grade Level (Req.): Kindergarten-6th grade	Content Area (Req.): Geography, Social Studies	Unit (Opt.):
Connections to Other Disciplines (Opt.): <ul style="list-style-type: none"> • Science, Reading, Writing, Speaking, Library Research Skills, Mathematics • • 		
Time Frame (Req.): 5 to 7 class periods – one for steps 1 and 2 (pretest and introducing home assignment), one for step 3 (charting results), two to four depending on grade level and desired depth of topic for steps 4, 5, and 6, one for step 7 (posttest and wrap up)	Goal (Req.): Students will be able to identify environmental issues.	
	Objective (Req.): Students will have an understanding of the environmental issues concerning plastic bags. Students will discover that some developing countries including Bangladesh are more environmentally proactive than the USA in reducing plastic bags.	
Materials Needed (Req.): <ul style="list-style-type: none"> • Pretest (page one only) • Posttest (page one and page two) • Resource materials on the effect of plastic bags on the environment • Resource materials on Bangladesh • Paper and pencils • • 	New Vocabulary (Opt.): <ul style="list-style-type: none"> • • • • • 	
Anticipatory Set/Introduction [Inquiry Question is required] (Req.): What are the environmental issues concerning plastic bags? How are the countries of the USA and Bangladesh dealing with these issues?		
Instructional Sequence/Procedure (Req.): <ol style="list-style-type: none"> 1. Administer pretest. 2. In class, make a list of kinds of plastic bags that might be in the home. Assign students to go home and count how many plastic bags they have in their homes. 3. Have students chart their results. 4. Discuss environmental problems with plastic bags. 5. Share basic background information about Bangladesh. Have students brainstorm why the third world country would ban plastic bags. 6. Brainstorm actions that the students and their families can take to reduce the environmental problems of plastic bags in the USA. 7. Administer posttest. 8. Enrichment Possibilities: Students may go into more depth researching such topics as the organizations that are promoting banning plastic bags, alternatives to plastic bags and their effects on the environment, the countries that have banned plastic bags and their reasoning for doing so. Results or research can be shared in a variety of ways including backboard displays, posters, write and present a play, report, newspaper editorial, PowerPoint presentation, create a web page. 		

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Formative Evaluation (Req.): Teacher observation

Assessment (Req.): Pretest/Posttest. Additional projects if desired.

Iowa Core Curriculum Standards Used (Req.):

- Geography, grade 3-5: Understand how physical processes and human actions modify the environment and how the environment affects humans.
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Common Core Curriculum Standards Used (Opt.):

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NGS Standards Used (Req.):

- How human actions modify the physical environment
- How physical systems affect human systems
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Five Themes of Geography Used (Req.):

- Human-Environmental Interaction
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School District Standards and Benchmarks (Opt.):

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21 st Century Universal Constructs (Opt.): Critical Thinking, Creativity, Flexibility and Adaptability	
Other Disciplinary Standards (Opt.): • • • • •	
Other Essential Information (Opt.): K-12 Talented and Gifted Instructor	
Other Resources (Opt.): • • • •	

Background Information

The country of Bangladesh continually works on controlling their flooding. Plastic shopping bags have been banned because they can clog drains preventing water flow and increased flooding.

Interesting note: When we were in the country we noted that the country did not use plastic shopping bag. Most packaging was paper with many shops recycling newspapers into shopping bags. While there I thought the reason was a cost saving factor without really considering the environmental reasons.

Countries that have banned plastic bags (according to Time Magazine, August 13, 2007 Vol. 170, No. 7, 2007, pages 49-51 "Fashion Paper, Plastic or Prada?") Bangladesh, Rwanda, Taiwan, and Zanzibar Islands. Uganda banned thin plastic bags and taxes thicker ones. In South Africa thin plastic bags are banned. In India plastic bags are banned in Mumbai, New Delhi, and two states. In Ireland there is a twenty cent tax per bag. In Paris the ban takes effect this year and the rest of France by 2010. Kenya's ban will go into effect in 2008. The city of San Francisco, California, USA has banned non-biodegradable plastic bags in large grocery stores and pharmacies.

Information on plastic bags:

Years to decompose---1,000

Bags used by a family of four in USA per year 1,460

Barrels of oil to make bags---12 million

Percentage of bags recycled---less than 1%

Bag consumed in the USA in 2006---88.5 billion

Estimated bags sold worldwide every year---500 billion

Website Resources on Plastic Bags and the Environment

Time Magazine, August 13, 2007 Vol. 170, No. 7, 2007, pages 49-51 "Fashion Paper, Plastic or Prada?" Grocery shopping gets chic with eco-friendly designer totes to bag your greens <http://www.time.com/time/magazine/article/0,9171,1649301,00.html> [This article contains a complex diagram. Please see hardcopy or pdf.] NOTE: The diagram is a world map showing the locations of countries that have banned plastic bags and additional information about the process. It was the diagram that created my interest in writing this lesson plan. I am assuming this article will be accessible through the archive documents after 2007. <http://www.time.com/time/archive>

The Society of the Plastic Industry History of plastic bags, environmental issues, bag recycling information <http://www.plasticsindustry.org/about/fbf/environment.htm>

Common Dreams Organization, "Plastic Left Holding the Bag as Environmental Plague, Nations around world look at a ban." <http://www.commondreams.org/headlines04/0721-04.htm>

Earth Resource Foundation, "Campaign Against the Plastic Plague Background Info" <http://earthresource.org/campaigns/capp/capp-background-info.html>

The Environmental Literacy Council "In 2002, Bangladesh banned plastic bags after drains blocked by bags contributed to widespread monsoon flooding in 1988 and 1998." <http://www.enviroliteracy.org/article.php/1268.html>

Website Resources on Bangladesh

Wikipedia <http://en.wikipedia.org/wiki/Bangladesh>

Virtual Bangladesh, background information including history, birds and animals, recipes. Be aware that there is access to chat and interaction. <http://www.virtualbangladesh.com/>

Lonely Planet. I took the hard copy of this book with me to Bangladesh and found it very useful for general information about this country. <http://www.lonelyplanet.com/worldguide/destinations/asia/bangladesh>

Dreams for a Fair Future This is a fun site created by fifth graders from the American International School/Dhaka in Bangladesh <http://www.ais-dhaka.net/CF07/index.html>

The Daily Star, the website of a Bangladesh newspaper written in English <http://www.thedailystar.net/>

Pretest/Posttest Page 1

Name _____

Teacher/Section _____

Date _____

PLASTIC BAGS AND THE WORLD

Answer the following questions:

Take a guess---How many plastic bags do you have in your home? (Include all kinds of bags---shopping, sandwich, trash bags, packaging bags, dry cleaner bags and others)

How are these plastic bags helpful?

When your family goes to the mall or to the grocery store what do you put your purchases in?

Could these plastic bags be hurtful in anyway? Explain your answer.

Posttest Page 2

What have you learned about the developing country of Bangladesh and their reasons for banning plastic bags?

What are some actions that you and your family can take to reduce the environmental problems of plastic bags?