

5.2.2 Goodbye Plastic Bags?

Overview

Communities worldwide have considered banning plastic bags from use in grocery stores and by large retailers. Some have successfully passed ordinances to charge consumers a nominal fee (5 to 20 cents) for each bag they require at a checkout stand. Others have initially passed a ban but had it repealed by voters in a later election. These voters cite the potential for increased costs at stores that need to provide an alternate bag, inconvenience, and recycling statistics that state that it is less expensive to recycle plastic bags than paper ones. On the other side, proponents of the ban remind people that very few of them recycle plastic bags, the raw material to make them is a finite resource (oil), and most are used for only a few minutes and then thrown into the trash, which often ends up in our waterways and oceans.

Learning Objectives

- Science can help citizens solve problems and make informed decisions.
- Technology can have unintended consequences that are helpful or harmful.

Student Activity: Goodbye Plastic Bags?

Materials

Access to the Internet

Advance Preparation

Complete Activity 5.2.1: Plastics and You. Note the number of times a single-use plastic bag was listed.

Process and Procedures

1. As a class, discuss the commonplace plastic bag. When and how do you use it? Focus on the idea that the convenience and low cost of plastic bags are what have made these single-use bags so popular. As a technology, it solved many problems in the marketplace. But at what cost?
2. Conduct research on the Internet to find out about some of the communities around the world that have instituted bans on plastic bags. In what ways do they control the use of plastic bags? Is there a cost to the consumer? To the business?
3. Continue your research. Using articles from the Internet and information provided about the communities that have banned plastic bags and those that have decided not to ban them, make a T-chart in your science notebook and outline the pros of using

plastic bags in one column and the cons in the other column. Be sure to consider both the use by consumers and the use by businesses.

4. Share your T-chart with your class. Hold a discussion that centers on the following questions:
 - What information did others find that you did not?
 - What were the arguments for and against the use of plastic bags?
 - Do you think that people who vote against a ban of plastic bags have some good arguments? Why or why not?
 - Which position does science favor?
 - What is your community doing about plastic bags? Do you agree?
 - If plastic bags continue to exist in your community and around the world, what can you do?

Assessment

Create a poster (physical or virtual) to support the ban of plastic bags. Use information from your T-chart and class discussion to address the concerns held by people who do not want plastic bags banned and to clarify your reasons for supporting the ban.