Name	Class	Date
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Exploration Lab

CONSUMER

Organizing a Sustainable Product Guide

Sustainability is defined as the condition in which human needs are met in such a way that a human population can survive indefinitely. The goal of sustainability is to improve the quality of life in our communities without depleting the many resources on which life on Earth depends.

Sustainable products are those products providing environmental, social, and economic benefits, while protecting public health, welfare, and the environment. To be classified as sustainable, a product must accomplish these goals over its full life cycle, from the gathering of raw materials, manufacturing the raw materials into a product, shipping it to the consumer, its use by the consumer, to final disposal. A product isn't sustainable if it meets these goals in some portions of its life cycle, while failing to meet them in others.

One function of government is to manage the production sustainability of the country, since this is key to the economic and environmental welfare of that country's population. Although governments manage production sustainability, many people think it is up to the consumer to be a force to drive manufacturers toward producing sustainable products. According to this theory, if many consumers stop purchasing non-sustainable products, manufacturers will stop making them.

Three simple criteria may be used to determine sustainability.

Cyclic The product is made from compostable (vegetative) or recyclable (paper, metals, plastics, glass) materials. Not all materials are manufactured into a form favorable for recycling.

Renewable The manufacture of the product uses forms of renewable energy that are cyclic and safe (e.g., solar, wind, geothermal, natural gas from decomposing waste).

Safe The product does not use materials that can be toxic during use or after disposal.

In this lab, you will learn about materials used to make various products. You will then use this information to classify consumer products as sustainable or non-sustainable, using the three criteria above. Finally, you will prepare a consumer guide to sustainable products.

Name	Class	Date
Organizing a Sustainable F	Product Guide continued	

OBJECTIVES

Collect Data on the sustainability of common household products.

Organize and Analyze the sustainability of common household products.

Summarize your research in a guide to sustainable products.

MATERIALS

- Internet access, if available
- magazines and newspapers with product advertisements

Procedure

1. Devise a scale that rates the sustainability of products. Write your scale below.

- **2.** Find advertisements in newspapers and magazines for ten products people commonly use, or examine ten actual products.
- **3.** Find information about each product's ingredients or the materials used to manufacture it. Include the packing materials in your research. Consider the product's expected lifespan and methods of disposal for the product.
- **4.** Prepare an index card for each product. You can cut out a picture of the product from the advertisement or draw the product. Each card should show the product information you researched. Each card should also indicate a sustainability rating that you assign to each product.

Name	Class	Date	
Organizing a Sustainable Pr	roduct Guide continued		

Analysis

- **1. Classifying** Gather the index cards from all lab team members. Devise a way to organize the information. You might sort by product type, by rating, or by any other category that seems logical.
- **2. Organizing Data** Use the index cards to prepare a guide about sustainable products as a lab team. Your team also might include guidelines for choosing products, and information about agencies and organizations that provide information on sustainable products. The guide can be delivered in any form, such as a Web site, computer presentation, or a pamphlet.

Conclusions

3.	Evaluating Methods Compare the presentations of each of the lab teams. In your opinion, which presentation did the best job of providing information to consumers on sustainable products. Why?

Extension

1. Research and Communications Locate information on the production sustainability track record (mining/growing, manufacturing, and shipping) of the companies that make the products that you identified as sustainable. Prepare a chart comparing each product's consumer sustainability and a production sustainability track record of the manufacturer. Present your information to the class.