Product Life Cycle Activity

Objective: The student will be able to list and understand the life-cycle environmental impact of products that they use. Students will also gain an appreciation for product complexity and for how challenging it is to gather this type of information.

Age Level: Grade 8-12

Method: Help students to trace the life cycle of a favourite product to determine the environmental impact of the things people purchase, from the raw materials to the disposal of the waste product.

1. Select an everyday product: a cell phone, a carrot, a T-shirt …

2. Try to find out everything you can about the product:

a) What is the product made from? Try to identify the different materials that the product is made from and consider where these materials come from and how they are processed.

b) How is the product made? What types of pollution were produced in the making of the product?

c) How is the product packaged? Where do the packaging materials come from? (Packaging materials have their own life cycles too).

d) How far away was the product manufactured? How was it transported to you? What are the environmental impacts of that transportation?

e) How long will the product last?

f) What happens to the product after you are through with it? Can it be given away? Can it be recycled? Does it need to be thrown in a landfill? What are the environmental impacts of the product's disposal?

3. Can you find alternatives to the product that will have fewer environmental impacts?

4. Can you use the product in ways that will decrease its effect on the environment?

Additional Resources

Sample Life Cycle Analyses (from the U.S. Environmental Protection Agency)

- The life cycle of a cell phone: http://www.epa.gov/osw/education/pdfs/life-cell.pdf

- The life cycle of a CD/DVD:http://www.epa.gov/osw/education/pdfs/finalposter.pdf
- *Stuff: The Secret Life of Everyday Things* (1997) by John C. Ryan and Alan Thein Durning, Seattle: Northwest Environment Watch.
- Excerpt on Computers: www.csc.calpoly.edu/~jdalbey/Public/secretlife.html
- "Cradle-to-Cradle" design example: www.interfacesustainability.com