

**Activity 9.1 Product Lifecycle**

Introduction

Have you ever wondered how the components in your computer, television, or any other product that you may use on a daily basis actually become finished products? For example, the plastic case that surrounds your computer or television is not mined from the earth; it begins as crude oil. How does a viscous, gooey substance such as oil become a plastic shell for consumer electronics? What happens to that plastic case once it has fulfilled its usefulness?

All things have a beginning and an end. With respect to consumer products, engineers refer to this as a product lifecycle. Raw materials are extracted from the earth, processed into a more useable form, manufactured into a consumer product that serves a specific purpose, sold, used for a certain amount of time, and either thrown away or recycled.

In this activity you will select a consumer product and research its lifecycle from the beginning to end. In groups of two, pick a consumer product that is used every day. The product must be instructor-approved.

Equipment

* Computer
* Microsoft® Word®
* Microsoft® PowerPoint®
* Internet access
* Library resources
* Engineering notebook

Procedure

1. Investigate the lifecycle of this product as discussed in the **Global and Human Impacts** PowerPoint® presentation.
2. Create a timeline of your product using PowerPoint®.
   1. The timeline should discuss the five steps of the product lifecycle.
   2. Investigate how this material can be recycled and reused after it has outlived its usefulness.
   3. Include at least three different cited sources using APA style on the final slide in the presentation.
3. Present your research results to the class.

Conclusion

1. What is meant by product lifecycle?
2. Why is it important for companies who make products to research and determine a product’s potential lifecycle?
3. What would you change about your product? Why?
4. Do you think your product will evolve or become obsolete over time? Why?
5. What is a trade-off?
6. Do you think that trade-offs were made during the design phase of your product?
7. Why is it important to recycle?
8. How do product designers play a role in recycling?
9. What role does society play in the recycling effort?
10. What can you do to help?