The focus of this activity is to introduce and understand the concept of sustainable development by using ideas found in The Lorax.

The Lorax is a fictional story about a man whose activities abused the environment and about what he learned from the experience. The story contains many common components found in the environmental problems and issues facing humans around the world. Further, The Lorax also contains many of the components associated with sustainable development (SD), an idea that is probably new to many of you.

Sustainable development is an important (and complicated) idea for all human beings to understand. SD is the current worldwide attempt by planners, leaders, and scientists to conduct human activities in such a way that the environment is preserved. Although there is still much confusion and discussion, there appear to be four basic parts of SD - human needs, technology needs, economics needs, and environmental needs. Let's consider each of these.

"Human needs" refers to the basics of human life. The primary needs include income, shelter, food, water, safety, and health. Certainly, others might argue that educational and spiritual components should be included. And certainly there are differences between regions, nations, and continents. Individuals living in developed, industrialized countries have, for the most part, greater opportunities to meet basic needs than individuals living in developing or underdeveloped countries.

"Economic needs" refers to monetary systems used by human beings in their activities. With the exception of primitive tribes, few humans in today's world can themselves meet all their basic needs. Rather, they specialize in a particular good and/or serviced by others. For example, bakers make bread; ranchers raise cattle; truckers transport bread, cattle and other goods. These goods and/or services that are needed by others are then bartered (i.e. traded) or exchanged for money. Money is a symbol of the value humans place on goods and/or services. Then, the bakers, ranchers, and others buy other goods and/or services they need. Thus, over time the exchange of goods and services for money has developed into complicated economic systems, the discussion of which is far beyond the scope of The Lorax. The important idea is that in today's world, individuals and nations operate within a complicated system based on the exchange of money for resources, goods, knowledge, and/or services. Further, most individuals (and nations) seek to improve their economic status, increasing their incomes in order that more goods and/or services can be bought.

"Technology needs" refers to the tools, methods, and/or systems used by humans. These include energy production, the use of natural resources, manufacturing, communication, transportation, and others. Humans use technologies to help them meet their economic needs. For example, bakers need ingredients and ovens; truckers need fuel, trucks and highways. Technology assists by saving labor and/or time, increasing production, or increasing health and safety. Unfortunately, the use of technology can sometimes have negative environmental consequences. For example, the mechanical plow led to both increased agricultural production and to increased soil erosion. Many experts now believe that new "environmentally-friendly" technologies must be developed. These technologies should be pollution-free and use renewable energy and natural resources.
"Environmental needs" refers to the protection, preservation, and conservation of biotic and abiotic resources in the natural world. Man's modern history is that of technological development without adequate consideration of environmental effects. Many of the current environmental problems stem from side-effects of inappropriate technology use, e.g., pollution, habitat destruction, resource depletion. Many humans now believe that preservation of the environment must be an important part of all future human activity.

You can see that sustainable development is a tricky idea. It suggests that humans "sustain" the environment by preserving, protecting, and conserving. Yet, economic development is still necessary in all countries, regardless of their current economic status. Many experts believe that this apparent conflict between outcomes is the key to the quality of future human life on the planet and that economic development using environmentally-friendly technology can help promote economic development that sustains the environment. The central SD focus is to balance quality of life with quality of the environment.

Choose one of the links below to view The Lorax. While viewing, answer the questions in PART A of the worksheet (attached). After you finish, complete PARTS B and C.

Powerpoint File: http://batesci.com/WebDocs/APES/Unit01_SustainableEarth/TheLorax.pps (12MB)

Google Video: http://video.google.com/videoplay?docid=6650219631867189375

Youtube Part 1: http://youtube.com/watch?v=xNi7pD04v-U
Youtube Part 2: http://youtube.com/watch?v=yQf_CHC5zwA
Youtube Part 3: http://youtube.com/watch?v=TA8N6jS-mxl
The Lorax, by Dr. Seuss – Worksheet

PART A – While watching the short animated film answer the following questions in DESCRIPTIVE PHRASES or SHORT SENTENCES based on the factual information and your interpretation.

1. The Once-ler describes a "glorious place." Identify and briefly describe at least four living components of the "glorious place."
   a. ______________________________________________________________________
   b. ______________________________________________________________________
   c. ______________________________________________________________________
   d. ______________________________________________________________________

2. Where did the Lorax live and who did he speak for?
   ______________________________________________________________________

3. The Once-ler used what to make Thneeds?
   ______________________________________________________________________

4. How long for a Truffula Tree seed to germinate? And how long to become a sapling (young tree)?
   ______________________________________________________________________

5. Identify and briefly describe three pieces of technology developed by the Once-ler to upgrade his Thneeds industry.
   a. ______________________________________________________________________
   b. ______________________________________________________________________
   c. ______________________________________________________________________

6. Eventually all the trees were cut down, houses were built, and this led to increased what?
   ______________________________________________________________________

7. Where was the waste and garbage dumped from the town and factory?
   ______________________________________________________________________

8. Bar-ba-loots were driven out because of a lack of what?
   ______________________________________________________________________

9. Describe the sky (or air quality) after the Once-ler created his factory.
   ______________________________________________________________________

10. What drove away the Swomee-Swans?
    ______________________________________________________________________

11. Why did the Humming Fish leave?
    ______________________________________________________________________

12. After they cut down the last Truffula Tree, what happened?
    ______________________________________________________________________

13. What did the Lorax leave behind and what did it mean?
    ______________________________________________________________________

14. What could the last Truffula seed be used for?
    ______________________________________________________________________
PART B – POST-VIDEO QUESTIONS: Answer these questions on a separate sheet of paper. Please answer with complete, original thoughts.

1. Have you ever acted like the Once-ler? (explain)
2. Choose a real-life example of whom or what you think the Once-ler represents?
3. Have you ever done anything that you think the Lorax would have done? (explain)
4. Choose a real-life example of whom or what you think the Lorax represents?
5. How could the Once-ler have made Thneeds without destroying the Truffula Trees?
6. What message was the author of The Lorax trying to convey?
7. Besides using a cartoon video, what other ways could this message be shared with other people in the community?
8. The Lorax spoke for trees “for trees have no tongues.” What would you choose to speak for, and what would you say?
9. Name an important natural resource in your area, state, or country.
10. Why would the humming fish make reference to Lake Erie, a "real" place in an otherwise fictitious world? (NOTE: Do some post-film research on your own for an environmental issue in the 1970s associated with Lake Erie.)

PART C – Working in groups of 2, answer one of the 10 numbered choices below:

1. Identify and research real-life examples of three of the following items in the story:
   a. Swomee-Swans,
   b. Truffula Trees,
   c. Brown Bar-ba-loots,
   d. Humming Fish,
   e. Thneeds

2. Most environmental problems result from a "domino effect" begun by a single action or activity. Select three of the following environmental issues below observed in the "glorious place" and relate them to the development of the Thneeds.
   a. Energy Consumption
   b. Pollution
   c. Waste Disposal / Management
   d. Deforestation
   e. Human Population Explosion
   f. Endangered / Threatened Species

3. The Once-ler, like other humans in business, organized a system to manufacture and distribute his product. Listed below are several parts of a manufacturing process. Describe if and how each of the following was used in the story.
   a. raw materials
   b. product design
   c. labor (workers)
   d. assembly line
   e. energy
   f. shipping, transportation
   g. communication
   h. profits/ losses

4. Write a news article that informs the reader about an event from The Lorax.
5. Design a WANTED poster for the "villain" of the story.
6. Draw a map of where the story happened.
7. Draw/paint you favorite part of the story.
8. Draw a series of 4 pictures to summarize the story.
9. Make a plasticine or clay model of the Truffula trees and the Lorax as it would have been at the beginning of the story.
10. Draw a flow diagram to show how the Once-ler devastated the Truffula trees.