

FORESTS ON THE EDGE

IN-CLASS LESSON

ESSENTIAL QUESTION:

What is the best way to use the last remaining forestlands that are located near the edge of the city?

OUTCOMES:

1. Students will know the benefits of forests and multiple ways forestlands can be used.
2. Students will understand that population growth places increased demands on forests and other greenspaces near cities.
3. Students will understand how different land uses are both compatible and incompatible.
4. Students will increase understanding of conservation and sustainability of forestlands.

GRADE LEVEL: 5th-8th

TIME: One hour

MATERIALS:

- Document camera

ITEMS PROVIDED BY GREENWAY EDUCATION PROGRAM:

- Satellite maps of King County, forest photo, forest land use goal sheet
- 8 Land Use Goal Kits

AIR QUALITY KIT

Plastic sheet

Land Use Worksheet

Air Quality Title Card

Visual Aids: Air filter mask, toy car, brochures on air pollution, picture of human lung, comparison photos of Mt. Rainier, newspaper clipping of weather forecast, 3 air pollution sampling filters (white, grey and black)

DEVELOPMENT KIT

Plastic sheet

Land Use Worksheet

Development Title Card

Visual Aids: Look Inside a House Book, Real Estate booklet, map of a new housing development, play money, photo of forestland about to be developed, toy houses

LOW IMPACT RECREATION KIT

Plastic sheet

Land Use Worksheet

Low Impact Recreation Title Card

Visual Aids: toy camera, compass, binoculars, brochures on hiking and camping, animal/plant field guides, photos of a forest, scenic waterfall

HIGH IMPACT RECREATION KIT

Plastic sheet

Land Use Worksheet

High Impact Recreation Title Card

Visual Aids: toy people skiing, baseball players, soccer players

Photo of soccer/baseball fields

TIMBER HARVESTING KIT

Plastic sheet

Land Use Worksheet

Timber Harvesting Title Card

Visual Aids: paper products (pencils, Kleenex), play money, toothpaste sample, Weyerhaeuser brochure, photo of logger cutting slash

WILDLIFE PROTECTION KIT

Plastic sheet

Land Use Worksheet

Wildlife Protection Title Card

Visual Aids: skull of animal, tracks, scat and scat scarf, cougar photo, plastic salmon, Tiger Mt. map

AGRICULTURE KIT

Plastic sheet

Land Use Worksheet

Agriculture Title Card

Visual Aids: farm animals, barn, people, soil, photos of manure piled by waterways, photos of produce, photos of farming in Palouse

PROCEDURE: (*Adapt language and questions up or down depending on grade level.*)

1 INTRODUCTION

Introduce yourself and the essential question which should be written where students can see it. Describe what a greenway is and tell them the story of how the Greenway was created. Review uses of forests and population growth. As human population increases in King County, pressure is put on forestlands adjacent to urban areas. Show the “greenness satellite map” and ask for observations. These photos were taken 20 years apart. What caused the change?

How can we reconcile the needs of a growing population for developing land with the need for clean water, air, wildlife habitat and recreation? There is a conflict between some of these land use issues that we need to be able to resolve. King County gains one new person every 30 minutes. The population will double just in your lifetime. Imagine the freeways and shopping malls with double the population. Where will all these people live, work and enjoy forestlands? Where will they get fresh water, air, and wood products?

Reintroduce essential question and tell them we are going to work on solving this problem.

2 FOREST FOR SALE

Place the forest photo on the document camera. Explain: *This is a forested piece of land at the edge of a city. My family has owned it for years and it is pristine. There are no roads, trails, buildings. The animal population is in balance with the land and there are the perfect number of trees and water sources. Sadly, we have to sell it to obtain money to pay hospital bills for my child who is ill. (Reassure younger students that this is pretend). You (students) have the money to buy it. Keeping in mind the different land use issues we have discussed, how would you use this land?*

List their ideas. Students usually need to have development, recreation and timber harvesting defined. Once all of the eight goals have been listed, say that we are going to study this issue further by breaking into 8 small groups.

3 LAND USE ACTIVITY

Before teacher breaks the class into 8 small groups, put the in-class worksheet on the document camera. Explain how to fill it out using one of the land use goals. Define pros/cons if necessary. Request at least 3 pros/cons per small group.

Explain that each group will represent a different land use goal that we just discussed (show overhead). For the purposes of this exercise, the group should adopt the goal as their own when thinking about how to use the piece of land in the photo. Each group will receive a packet with a plastic bag that they should spread on their table. Organize the materials and look at all of them. Then fill out the worksheet.

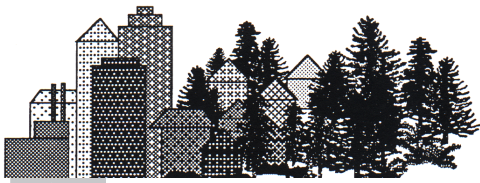
They will have about 10 -15 minutes to complete this and then each group will give a 2-minute presentation on: their goal and the pros/cons. You can have the whole group present or just one person depending on time constraints. If time allows, the students can ask questions and challenge each other.

4 LAND USE COMPATIBILITY CONCEPT

Explain that I, as the land owner, feel that all of the land use goals have pros and cons. Ask the students to explain “compatibility”. **Ask each group which other group in the room has goals compatible with their own.** Usually the students are somewhat uncertain about the compatibility of low impact recreation and wildlife habitat preservation because many of them have never walked in a forest before. They will understand that issue better after the field trip.

5 CONCLUSION

End by talking about the Greenway Trust. The Greenway attempts to sustain forestlands by identifying land that could have multiple uses. Tell the students (if they are going on the field trip) that we will work on this difficult question more in the field.



LAND USE GOALS

WILDLIFE PROTECTION

LOW IMPACT RECREATION

HIGH IMPACT RECREATION

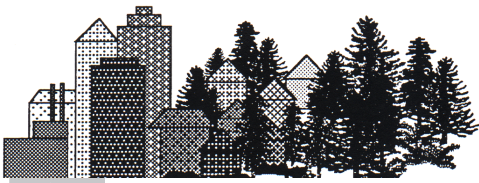
TIMBER HARVESTING

DEVELOPMENT

AIR QUALITY

WATER QUALITY

AGRICULTURE



LAND USE GOAL WORKSHEET

Names: _____

Your Land use goal: _____

To reach this goal, the forest should be:

___ left as is

___ changed

PROS ⊕ (POSITIVE)	CONS ⊖ (NEGATIVE)