

## 6.1 Habitats—The Choice Is Yours: Background Information

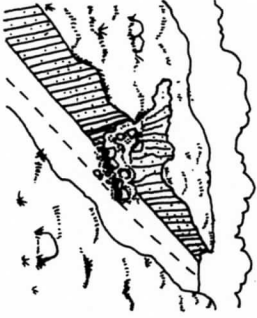
All organisms need space in which to live. Deer, birds, squirrels, and all other land animals, including humans, need land on which to build their "homes" and find or grow their food. There is a limited amount of land available for use by land animals. When people want to build houses, industries, roads, or recreational areas, land is needed. We use land to grow our crops. If undeveloped or natural land is used, communities of organisms are going to be disturbed, and perhaps destroyed.

In this activity, you are part of a land-use planning team. Your task is to plan how to use Muir Valley to support 10,000 people. (At the present time, the valley supports only one family that has a small farm.) At the conclusion of your planning time, you will present your proposal to the other students in the class. For the sake of activity, assume that all 10,000 people must live, work, shop, and have their recreational and other needs met in this valley, that is, that it is a "closed system."

In reality, most, if not all, communities depend on other areas for many things, such as electricity, raw materials for industry, certain foods, and so forth. What we do (or don't do) in one place has an impact on other places. Saving gas and oil helps protect others and other wildlife. Wasting less wood helps protect forests and the wildlife that depends on forests. Saving energy reduces air pollution and acidic precipitation from coal- and oil-burning power plants. Avoiding the use of tropical hardwoods helps protect rain forests. Recycling aluminum protects areas where aluminum ore is mined. As John Muir said, "When we try to pick out anything by itself, we find it hitched to everything else in the universe."

Many species of plants and animals are either threatened with extinction or endangered. Many species have already become extinct. Many more become extinct every year. Some estimates are that as many as 10,000 species of animals may become extinct each year! Habitat destruction is the main cause of extinction. Hunting for commercial, subsistence, or sport purposes also creates problems for some species. Predator and pest control and pollution threaten others. Use of some species of animals as pets and plants for decoration destroys large numbers of animals and plants.

Aside from aesthetic and recreational reasons, there are many practical reasons why we should be concerned about other species. Many wild species hold great promise as sources of medicines, foods, and fibers. Ecosystems are very complex arrangements of plants and animals, and what affects one species may ultimately affect many others. Finally, there is the ethical question of whether mankind has the right to cause or hasten the extinction of other species. As you develop Muir Valley, keep in mind the many values of the plants and animals that live there.

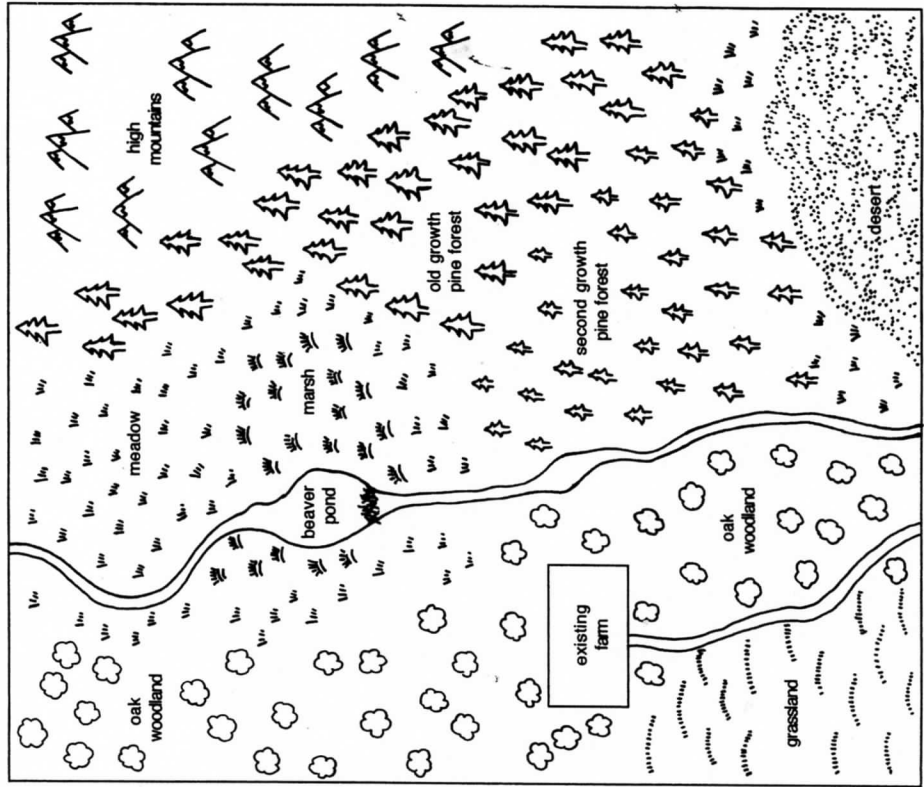


Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

## 6.3 Habitats—The Choice Is Yours: Questions

1. How did your protection and use priorities differ from those of other groups? In what ways were they the same? How could such differences be resolved?  
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2. Should land be protected from development or other uses such as logging or oil drilling if an endangered species is found there? Under what conditions? Even if it is a species of plant or insect? Why or why not?  
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3. Should the government spend money to protect endangered species? Why or why not?  
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\_\_\_\_\_
4. What is the relationship between human population and species endangerment?  
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5. What is the relationship between resource use and species endangerment?  
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6. Discuss the statement that "All things are interrelated."  
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7. Discuss the idea that we should "Think globally and act locally."  
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### 6.2 Habitats—The Choice Is Yours: Planning Map



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### 6.2 Habitats—The Choice Is Yours: Activity Instructions

Your planning team will be given (or will make) a map of an area. Your job is to plan a community in which 10,000 people will live, work, and shop, and will meet their recreational needs. When you have marked your plan on your map, you will present it to the rest of the class. You should be able to explain why you chose to use the land as you did.

The numbers below are not intended to represent actual land-use needs. The actual amount of land needed for a given use varies widely because of differing lifestyles, quality of land, and so forth. For the sake of the activity, use the space requirements given in the table below.

Note that you have several choices to make. For example, what proportion of the population will live in single-family residences as opposed to apartments? How much land will be allowed for such things as stores or roads? Will you allow more industry so that more money will come to Muir Valley?

Use the code provided by your teacher to indicate the various land uses.

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USE	LAND NEEDED (acres)	COLOR/SYMBOL
housing (single-family residences for 1,000)	80 acres/1,000	<input type="checkbox"/>
housing (multiple-family residences for 1,000)	20 acres/1,000	<input type="checkbox"/>
industry/manufacturing plants	1,200 acres	<input type="checkbox"/>
raw materials/mining	6,000 acres	<input type="checkbox"/>
agriculture (food plants, animals)	6,000 acres	<input type="checkbox"/>
other crops (fibers, lumber, etc.)	3,200 acres	<input type="checkbox"/>
commercial stores	80 acres	<input type="checkbox"/>
services (doctors, banks, offices)	40 acres	<input type="checkbox"/>
public uses such as schools, police, fire, water, public utilities, hospitals, waste disposal, government administration, post offices, etc.—at least one of each. (labeled)	400 acres	<input type="checkbox"/>
public recreational uses (developed areas for sports, parks, camping, etc.)	1,200 acres	<input type="checkbox"/>
roads and parking	800 acres	<input type="checkbox"/>