

Eco-Choices Assessment

1. Use the diagram of Leopold County, shown below, to fill in the chart.



| | What other towns would be affected by this spill? | How would pollution get to the towns? | Are there any towns that wouldn't be affected? |
|--|---|---------------------------------------|---|
| Imagine that there was a chemical spill in the town of View, along the Green River at the black dot. | | | |
| Imagine that a new factory was built in Moose City, at the black triangle, which emits a lot of air pollution. | | | |

2. Fill in the following charts, based on the decisions made during this game by your town or the towns of your classmates.

| Choice | How does this choice improve the environment? Be specific: water/air quality, biodiversity | Why would this happen? Explain your reasoning. |
|---|---|---|
| Build houses on a farm that uses lots of chemicals | | |
| Build a train or invest in buses for public transport | | |
| Build windmills for energy | | |

| Choice | How does this choice harm the environment? Be specific: water/air quality, biodiversity | Why would this happen? Explain your reasoning. |
|---|--|---|
| Build houses on a farm that uses lots of chemicals | | |
| Build a train or invest in buses for public transport | | |
| Build windmills for energy | | |

3. Think about the choices that your town made throughout the game. Summarize the changes that took place, using the following charts to help you.

| | Ecosystem services levels | What was the reason for these levels of ecosystem services? |
|--|---------------------------|---|
| At the start of the game, your town had: | Biodiversity: _____ | |
| | Water: _____ | |
| | Air: _____ | |

| | Choices | How did each choice affect the different ecosystem services? Explain. |
|--------------------------------------|---------------|---|
| What choices did you decide to make? | Land choice: | |
| | Water choice: | |
| | Air choice: | |

| How were your ecosystem services affected by the choices made by the other towns? | Biodiversity - was the biodiversity improved, or harmed? Why? | Water quality - was water quality improved, or harmed? Why? | Air quality – was air quality improved, or harmed? Why? |
|---|---|---|---|
| Hawk | | | |
| Rabbit | | | |
| Woods | | | |
| View | | | |
| Moose City | | | |

4. Finally, focus on the county-level decision that was selected by your class.
 - a. What is the decision, and why was it selected as the best option?

 - b. How does this decision impact the ecosystem health of your town, as well as the rest of the county? Be sure to include why you think the ecosystem will be affected in the way you describe, using what you know about science to help you.

5. Imagine that the population of Moose City doubles in the next ten years. How might this impact your town, as well as the rest of the county?

6. Based on your experiences in this game, why is it difficult to make environmentally-friendly decisions?