



The BIG Choice - Uno's Garden

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Lesson Description

Based on the book *Uno's Garden* by Graeme Base, this lesson tackles a big question - economic development versus the environment. The first half of the book has 12 pictures with descriptions. The story begins with 9 animals, 100 plants and a snortlepig. Uno likes the forest so much he decides to move in. Pictures 2-12 show the scene as the animals and plants decrease and the population and buildings increase. Students will see the scarcity of plants and animals as the story progresses. They will also see that because of the scarcity of land, choices have to be made. The second half of the book shows how balance is restored to this forest over the next generations, but the snortlepig is never seen again. This shows students how the choices that are made today affect the future. After listening to the story, students are asked to evaluate the choices made.

The students will then participate in an activity where they will have to make choices about how land will be used. They will use a cost-benefit chart to help them with the decision.

Grade 3-4

Concepts

- **Alternatives:** One of many choices or courses of action that might be taken in a given situation.
- **Benefits:** Monetary or non-monetary gains received because of an action taken or a decision made.
- **Choice:** Decision made or course of action taken when faced with a set of alternatives.
- **Costs:** An amount that must be paid or spent to buy or obtain something. The effort, loss or sacrifice necessary to achieve or obtain something.
- **Natural Resources:** Things that occur naturally in and on the earth that are used to produce goods and services. Examples: water, wood, coal.
- **Opportunity Cost:** The value of the next best alternative when a decision is made; it's what is given up.
- **Scarcity:** Actions that can satisfy people's wants.

Standards

Arkansas Economics Standards

- E.4.3.1: Illustrate examples of scarcity and opportunity cost with the local community and different regions in the state. D2.Eco.1.3-5

- E.4.3.2: Identify problems, alternatives, and trade-offs involved in making a decision D2.Eco.2.3-5
- E.4.4.2: Apply economic decision-making models when making decisions. (e.g. PACED Decision Making Model) D2.Eco.2.3-5
- G.9.4.1: Analyze effects over time of human generated changes in the physical environment (e.g., deforestation, dams, pollution). D2.Geo.5.3-5

Arkansas English Language Arts Standards

Grade 3

- RL.3.1: Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
- RL.3.3: Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.
- RL.3.7: Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting).
- SL.3.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.
- SL.3.2: Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
- SL.3.4: Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.
- SL.3.6: Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

Grade 4

- RL.4.1: Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
- RL.4.3: Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions).
- SL.4.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.
- SL.4.4: Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
- SL.4.6: Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation.

Objectives

Students will be able to

- define and discuss scarcity and decision-making

- define and evaluate choices
- complete a cost-benefit chart to help them make decisions
- define and identify opportunity costs for decisions they make
- choose from limited city resources and describe the costs associated with each choice
- evaluate the challenges facing many of today's towns and communities as they try to balance environmental conservation with economic development and propose solutions
- explain how today's decisions are likely to impact future generations.

Time required

- 30 minutes for teacher preparation
- 1 class period (50 minutes)
- 30 minutes for the assessment

Materials required

- *Uno's Garden*, by Graeme Base, 1 classroom copy
- scissors - 1 pair for each student
- glue - 1 for each student
- City Planning Memo, 1 copy per student
- City Map, 1 copy per student
- Map Add-ons, 1 copy per student
- Cost-Benefit Chart, 1 copy per student

Teacher Preparation

Prepare materials prior to class:

- Make one photocopy per student of each of the City Planning Memo, the City Map, the Map Add-ons and the Cost-Benefit Chart. **NOTE: You will need sheets of 11 x 17 to print/photocopy the City Map.**
- Optional: Laminate each copy of the Memo, Map and Map Add-ons. Don't laminate the Cost-Benefit Charts.

Procedure

1. Review key concepts taught, see concepts section of the lesson.
2. Instruct students to listen to the story and take note of what happens to the natural resources in the book. (As more people and buildings come, fewer animals/plants continue to exist.)
3. Read the story through the 11th picture (no trees, no animals, and 512 buildings). Ask students to record their thoughts about this page. Would they want to live there? Why or why not? Ask students to evaluate the decisions that the people have made up to this point.

4. Now read the pages with the 12th picture (1 snortlepig, 1 tree, 1 old shack and Uno). Ask students to listen carefully to the rest of the story and notice what is different this time. (*The plants, animals and buildings stay in balance.*) Finish reading story.
5. Discuss the changes students notice — they may also say there is no snortlepig. You can take this opportunity to discuss extinction if you choose. Explain to students that some of the choices we make can affect many future generations. (In the book it takes many generations to restore the balance.)
6. Announce that students will now participate in an activity based on the book. They will pretend to be on the city planning committee. Their job, on this committee, is to decide how to use scarce land resources within the city.
7. Give each student a copy of the City Planning Memo, City Map, Map Add-ons and the Cost-Benefit Chart. Also give each student glue and scissors.
8. Ask students to read the city planning memo and follow the directions. They will have to decide which items to add to the city map. They will need to fill out the Cost-Benefit Chart to help them make their decision.
9. Instruct students to cut out the items they decide on and position them on their map. Optional: Use glue to affix the items.
10. Have students share their maps and explain their decisions to the class. This will help students understand that people make decisions based on different reasons and the opportunity cost doesn't have to be the same for every person. If available, instruct the students to use the SMART Board for their presentations.

Closure

Instruct students to write a paragraph defending the choices they made and defining the opportunity cost of their choices.

Assessment

Allow students to discuss the problem of environment vs. economic progress and brainstorm solutions to this problem.

Extentions/Connections

- There are obvious science connections here – taking care of the environment, recycling, conservation, extinction, etc.
- Reading strategies – making predictions about what will happen, questioning, making inferences. Instruct the students to look carefully at the expression on the snortlepig's face, infer his feelings, etc.
- Math – there are many formulas and equations within this book.

City Planning Memo

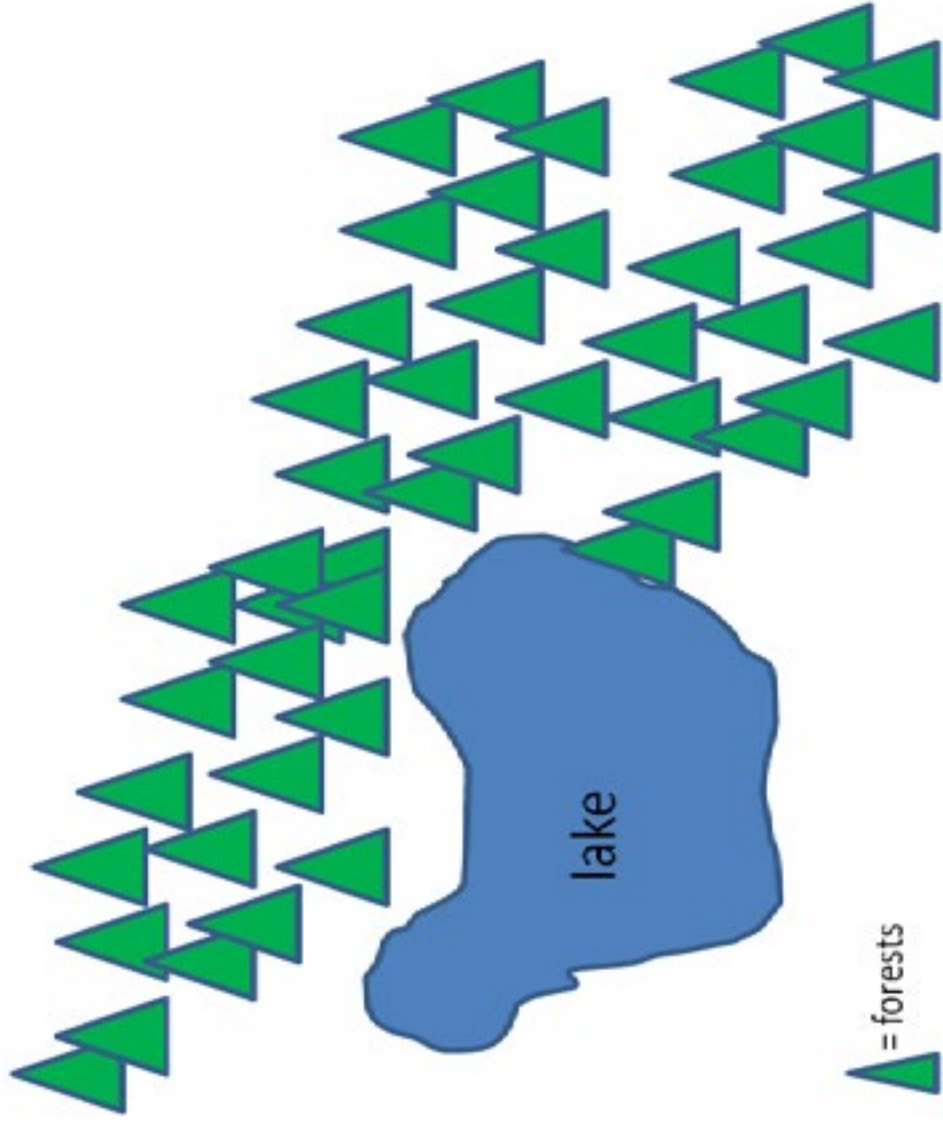
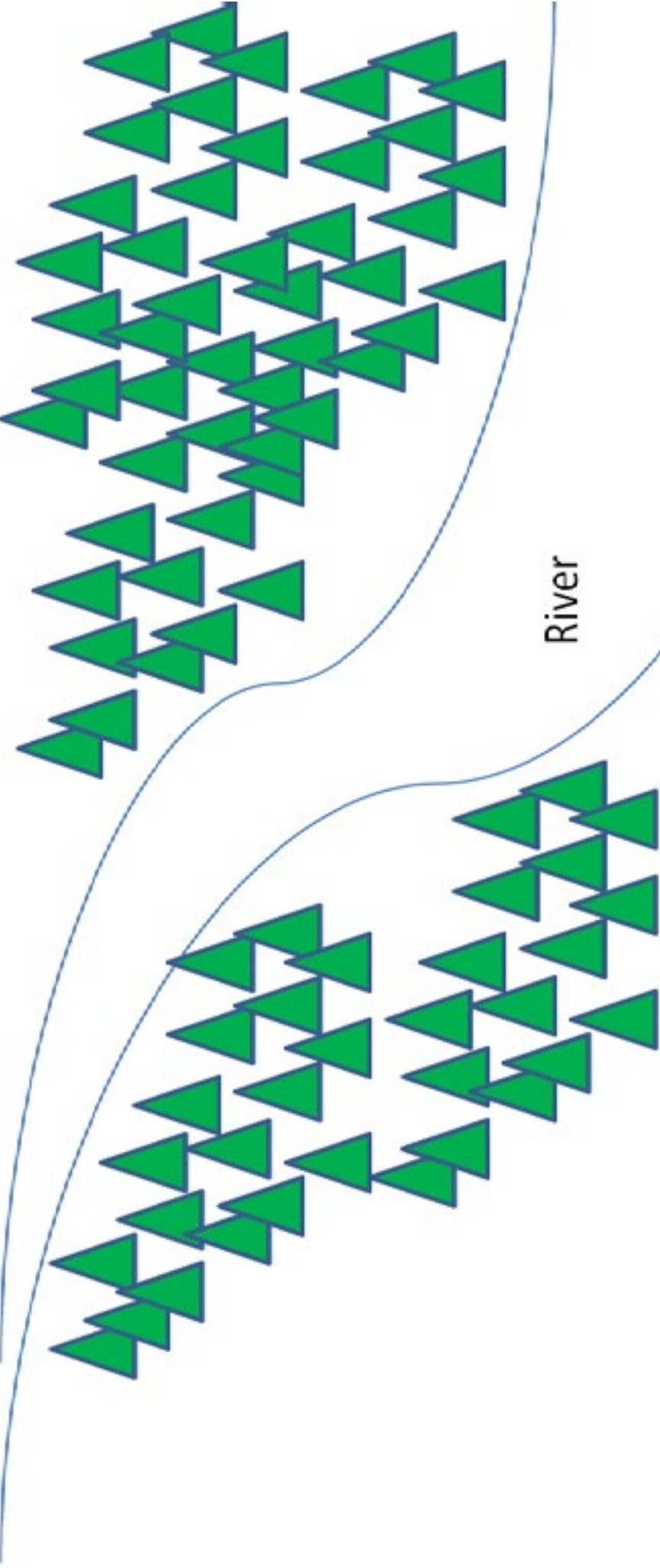
Members of the City Planning Committee:

Please decide which items to place in our city and decide where to place them. We need to decide how to best use our scarce natural resources. Please pay special attention to our river, lake and forests when making your plan. We know some trees may have to be cut down for construction. (If you place an item over the trees, they'll be marked to be cut down) Please consider the goods and services that will be important to the members of our city.



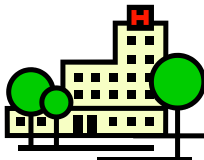












We must include:

- 5 housing developments
- A school
- Fire station
- City offices
- Grocery store
- Waste management station (garbage)
- Hospital
- And 3 other items – you decide

Please be ready to defend your choices. Our city is counting on you!



▲ = forests

				
School	City Offices	Hospital	Fire Station	Grocery Store
				
Waste Management	Shopping Mall	Library	Sports Complex	Movie Theater
	Cut out all of the boxes.			
Restaurant				
				
Housing Development				
				
Housing Development				
				
Housing Development				
				
	Park			

Cost Benefit Chart

Choice 1: _____

Costs	Benefits

Is it a good choice? _____

Choice 2: _____

Costs	Benefits

Is it a good choice? _____

Choice 3: _____

Costs	Benefits

Is it a good choice? _____

What was the opportunity cost of your decision (the next best choice you gave up)?

Did you make a good choice for your city? Be ready to defend.