

## Let the River Run

Catharine Freeman – School not available

Grade Level (Req.): 3rd-5th grade	Content Area (Req.): Human Geography, Physical Geography, English/Reading	Unit (Opt.):
Connections to Other Disciplines (Opt.): <ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> </ul>		
Time Frame (Req.): The basic part of the lesson including the activity would take one class period; however, this lesson has been designed to be integrated into a thematic unit that could be a day or a week.	Goal (Req.): To learn about streams as natural resources.	
	Objective (Req.): Students will identify and illustrate parts of a stream. Students will describe how and why a stream develops. Students will design their own stream.	
Materials Needed (Req.): <ul style="list-style-type: none"> <li>• World atlases</li> <li>• Large (at least 12"x22") plastic container; clear or white plastic sheet (at least 3x3)</li> <li>• Newspaper</li> <li>• Water; Food coloring (optional)</li> <li>• Watering can or spray bottle; Water-soluble colored markers</li> <li>• Stream Drawing (master handout)</li> <li>• White paper and drawing materials</li> </ul>	New Vocabulary (Opt.): <ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> <li>•</li> <li>•</li> </ul>	
Anticipatory Set/Introduction [Inquiry Question is required] (Req.): How would you classify a stream?		
Instructional Sequence/Procedure (Req.): <ol style="list-style-type: none"> <li>1. Introduce unit by reading <i>A River Ran Wild</i> by Lynne Cherry.</li> <li>2. Use the Cause and Effect skill worksheet.</li> <li>3. Do a vocabulary web.</li> <li>4. Identify the six parts of a stream.</li> <li>5. Open the lesson. Individually or in groups, have students locate the Nile, the Amazon, and the Colorado rivers in their atlases. Identify their common features: their sources are in the mountains; they flow overland for a great distance; and they eventually flow into an ocean, sea, or gulf. Locate and describe their sources. Remind students that all streams flow from higher to lower elevations under the influence of gravity. Review the six parts of a stream.</li> <li>6. Demonstration: Explain that students will experiment with water to demonstrate the force of gravity on water, the way some rivers begin, how all rivers flow from high to low points.</li> <li>7. Conclude the lesson. Have students draw and label the six parts of a stream. Include features of the surrounding landscape, such as mountains, hills, valleys; a lake, gulf, or ocean at the mouth; and people along the banks using and enjoying the water. Students may want to tape their drawings together to create a longer course for their river.</li> <li>8. EXTENDING THE LESSON: River Research – Find out how great civilizations of the past depended on rivers for their growth such as the Chinese and the Egyptians. Explore which cities, towns,</li> </ol>		

and industries have been established in proximity to rivers. Find out how the presence or absence of a river has affected your community. Other research topics = Erie Canal, Pittsburgh, trading on the Mississippi, textile manufacturing, and the Grand Canyon.

9. Field Experience – As a class or as individuals, study a nearby river or stream. Visit it frequently to note changes throughout the school year. How will the water flow affect the banks and course of the stream? Use journals, photographs and drawings. Compare and analyze throughout the year.
10. Study the effects of floods – Research the Mississippi River flood of 1993. Have students research one aspect of this disaster and report to class. Role play: Have students debate whether or not people should move back into an area that floods regularly. Have one group take the role of home owners, and the other take the role of government leaders who want to keep people from building homes too close to some rivers.
11. Literature Links – “Up River” by Frank Asch. “Minn of the Mississippi” and “Paddle to the Sea” by Clancy Holling. “Common Ground: The Water, Earth, and Air We Share” by Molly Bang. “The Adventures of Huckleberry Finn” by Mark Twain.
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Formative Evaluation (Req.): Class participation

Assessment (Req.): Concluding activity previously mentioned above

Iowa Core Curriculum Standards Used (Req.):

- Geography, grade 3-5: Understand how human factors and the distribution of resources affect the development society and the movement of populations.
- Geography, grade 3-5: Understand how physical processes and human actions modify the environment and how the environment affects humans.
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Common Core Curriculum Standards Used (Opt.):

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NGS Standards Used (Req.):

- The physical processes that shape the patterns of Earth’s surface
- How physical systems affect human systems
- How to apply geography to interpret the past
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<p>Five Themes of Geography Used (Req.):</p> <ul style="list-style-type: none"> <li>• Location</li> <li>• Place</li> <li>• Human-Environmental Interaction</li> <li>•</li> <li>•</li> </ul>	<p>School District Standards and Benchmarks (Opt.):</p> <ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> </ul>
<p>21<sup>st</sup> Century Universal Constructs (Opt.):</p>	
<p>Other Disciplinary Standards (Opt.):</p> <ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> <li>•</li> <li>•</li> </ul>	
<p>Other Essential Information (Opt.):</p>	
<p>Other Resources (Opt.):</p> <ul style="list-style-type: none"> <li>• Curriculum Guide: "Earth 2U, Exploring Geography", Smithsonian Institution Traveling Exhibition Service, 1996.</li> <li>• Arthur Dorros. "Follow the Water from Brook to Ocean." HarperCollins, 1991.</li> <li>• Michael March. "The Unfolding River: From Source to Sea." Running Press, 1992.</li> <li>• Eleonore Schmid. "The Waters Journey." North-South Books, 1990.</li> </ul>	

Let the River Run

I chatter, chatter,  
as I flow  
To join the brimming river,

For men may come  
and men may go,

But I go on  
forever.

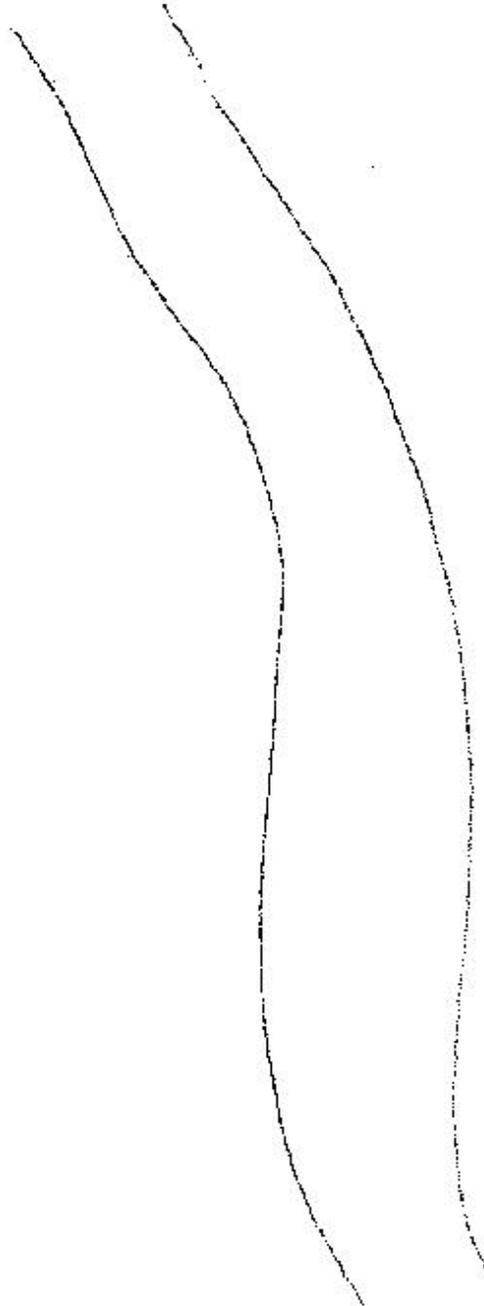
-from "The Brook,"  
by Alfred, Lord Tennyson

# A River Ran Wild

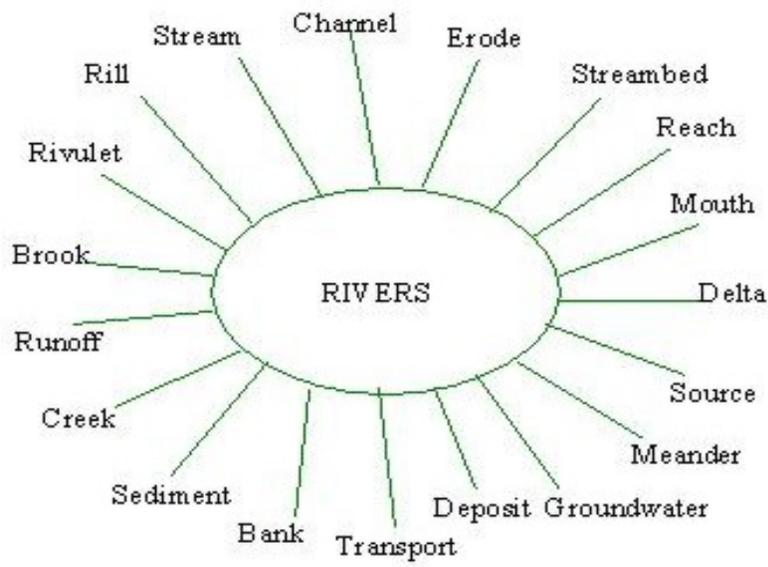
by Lynne Cherry

Cause

Effect



List as many cause and effect relationships as you can find from the story.  
Hint: The pictures are clues.



## Streambed

