2nd Grade *Our Relationship with Rivers* Inquiry

Is the relationship between people and rivers good or bad?

Supporting Questions

1. What are rivers and where are they located in my community?
2. How are rivers alike and different?
3. How do people use rivers to meet their wants and needs?
4. How do people and rivers affect each other?

The Buffalo River in Arkansas
## Is the Relationship Between People and Rivers Good or Bad?

<table>
<thead>
<tr>
<th>Arkansas Social Studies Standards</th>
<th>GLE 3.1.2 Understand the physical characteristics of places in the community. Examples: Describes physical characteristics such as rivers, lakes, mountains, and parks of the community in which they live. GLE.3.2.1 Understand that people in communities affect the environment as they meet their needs and wants. This inquiry asks students to investigate rivers and how they are used.</th>
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### Staging the Compelling Question/Discussion
After students have viewed the video, ask, “Would you be willing to give up your favorite toy or video game in order to have clean water?”

<table>
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<tr>
<th>Supporting Question 1</th>
<th>Supporting Question 2</th>
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<tr>
<td>Where are rivers located in my community?</td>
<td>How are rivers alike and different?</td>
<td>How do people use rivers to meet their wants and needs?</td>
<td>How do people and rivers affect each other?</td>
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| Formative Performance Task | Complete a graphic organizer. | Illustrate four ways people use rivers to meet their wants and needs. | Create a foldable listing the good and bad ways people and rivers affect each other. |

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<tr>
<th>Featured Sources</th>
<th>Source A: Video <a href="https://tinyurl.com/What-is-a-river">https://tinyurl.com/What-is-a-river</a> Time: 1:51</th>
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<tbody>
<tr>
<td>Source C: Table Top Map</td>
<td><a href="https://tinyurl.com/Arkansas-Rivers">https://tinyurl.com/Arkansas-Rivers</a></td>
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<td>Source C: Website</td>
<td><a href="https://tinyurl.com/Arkansas-Waterways-Map">https://tinyurl.com/Arkansas-Waterways-Map</a></td>
</tr>
<tr>
<td>Source D: Image bank - Arkansas Rivers provided</td>
<td><a href="https://tinyurl.com/River-Ran-Wild-Environmental">https://tinyurl.com/River-Ran-Wild-Environmental</a></td>
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<td>Source B: Website</td>
<td><a href="https://tinyurl.com/Why-are-rivers-important">https://tinyurl.com/Why-are-rivers-important</a></td>
</tr>
<tr>
<td>Source C: Book</td>
<td><a href="https://tinyurl.com/Letting-Swift-River-Go">https://tinyurl.com/Letting-Swift-River-Go</a></td>
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### ARGUMENT
Is the relationship between people and rivers good or bad? Construct an argument (e.g., detailed outline, poster, essay) that address the compelling question of how people and rivers affect each other. Use specific claims and relevant evidence from informational texts in the argument.

### EXTENSION
Create interview questions about ways to use water resources to meet people’s wants and needs without harming the environment. Invite local elected officials to visit and view the class slideshow and engage in conversation about the factors that should be weighed when considering the relationship between people and rivers.

### UNDERSTAND
There is a relationship between people and rivers

### ASSESS
Write a paragraph that addresses the question of how people and rivers affect each other.

### ACT
Create one slide to contribute to a collaborative slideshow demonstrating the affect people and rivers have on each other. Share the slide show with school and community leaders.
Inquiry Description

This inquiry leads students through an investigation of rivers. By investigating the compelling question “Is the relationship between people and rivers good or bad?” students evaluate the affect that people and rivers have on each other. The formative performance tasks build on knowledge and skills through the course of the inquiry and help students understand how rivers and people affect each other. Students create an evidence-based argument about the relationship between people and rivers.

In addition to the Arkansas Standards listed on the Blueprint, this inquiry lays the foundation for the following conceptual understandings from the C3 Framework:

- D4.7.K-2 Identify ways to take action to help address local, regional, and global problems.

In developing geographic understandings, students draw upon prior knowledge of spatial awareness, place, human systems, and human-environment interactions from earlier grades to create more complex understandings using the context of the local community. Students expand upon the concept of human systems and human-environment interactions by examining local land use, as well as the positive and negative consequences of changing the physical environment. They use core democratic values to demonstrate why people may differ on the resolution of a community issue as they continue to develop competency in expressing and justifying their own opinions relative to these issues. This foundational knowledge is built upon throughout the grades as students develop a greater understanding of how, when, and where to communicate their positions on public issues with a reasoned argument.

NOTE: This inquiry is expected to take four to six 30-minute class periods. The inquiry time frame could expand if teachers think their students need additional instructional time to develop a thorough understanding. This could be done by adding additional supporting questions, formative performance tasks, and/or featured sources. Teachers are encouraged to adapt the inquiries in order to meet the needs and interests of their particular students. Resources can also be modified as necessary to meet individualized education programs (IEPs) or Section 504 Plans for students with disabilities.

Structure of the Inquiry

In addressing the compelling question, “Is the relationship between people and rivers good or bad?” students work through a series of supporting questions, formative performance tasks, and featured sources in order to construct an argument supported by evidence.
Staging the Compelling Question


Teachers may prompt students with, “Would you be willing to give up your favorite toy or video game to make sure you have water to drink?” The class discussion activates prior knowledge and relates the importance of water to our daily lives. Discussion of the necessity of water makes relevant why people would be willing to sacrifice something valuable in order to have clean drinking water.

Supporting Question 1

The first supporting question, “What are rivers and where are they located in my community?” has students using an Arkansas map of rivers to locate rivers in and near their community. The formative performance task asks students to locate rivers in the community and list them on a class chart. The featured sources for this question includes videos describing rivers and a map of Arkansas Rivers. In this first formative task, students define the term “river” in their own words and use the map to locate rivers near their home.

**Source A:** This video explains that a river is a large natural stream of water flowing in a channel to the sea, a lake, or another such stream. It shows how a river is formed and how it flows to the mouth. Different sizes of rivers from other continents are shown and the video notes the source and mouth of each. [https://tinyurl.com/What-is-a-river](https://tinyurl.com/What-is-a-river)

**Source B:** This video shows the different stages of a river’s course and explains that as a river moves, erosion and deposition give rise to different land forms. [https://tinyurl.com/Exploring-Rivers](https://tinyurl.com/Exploring-Rivers)

**Source C:** The Arkansas Rivers map highlights the rivers and other major streams of Arkansas. The map also indicates the many prominent cities through which the rivers flow. [https://tinyurl.com/Arkansas-Rivers](https://tinyurl.com/Arkansas-Rivers)

**Source D:** Map of Arkansas Rivers – Use the Arkansas River Map to locate rivers in and near the community in which students live. List these rivers on a class chart.
Supporting Question 1 Source D: Map of Arkansas Rivers
For the second supporting question, "How are rivers alike and different?" the featured sources provide students with materials that allow them to complete a graphic organizer showing how the rivers are alike and different. In addition to the resources from the previous supporting question Featured Source A is a video of depicting the development of rivers. Featured source B and C focuses on Arkansas rivers. Using these source, students will find specific characteristics about each river listed. Featured Source D is an image bank with pictures depicting the variety of features of rivers in Arkansas.

The second performance task asks students to use the information from the pictures and Google Maps to create a graphic organizer which shows similarities and differences between rivers. Students should use all of these sources to develop the graphic organizer showing how rivers are alike and different by listing attributes of small and large rivers.

**Source A**: A river is born at its headwaters and finishes up at its mouth. This video invites viewers to come along for the trip as an entire river is visited. Unique aspects of rivers are also explored.
https://tinyurl.com/Parts-of-Rivers

**Source B**: This website provides pictures and descriptions of 17 rivers in Arkansas.
http://www.onlyinyourstate.com/arkansas/ar-rivers-travel/

**Source C**: The Interactive Arkansas Map Viewer enables the user to look at some of the points of interest that Arkansas has to offer. You will be able to size the Arkansas state map as well as find the location of scenic drives, waterways, historic sites State parks, museums and more.
https://tinyurl.com/Arkansas-Waterways-Map

**Source D**: Image bank - Arkansas Rivers - Several images of Arkansas rivers are provided, so students can view the similarities and differences between them.
Arkansas River at Little Rock
Black River at Powhatan, AR
Little Missouri River at Langley, AR
Mississippi River at Eunice, AR
White River at Mountain Home, AR
Supporting Question 3

The third supporting question, “How do people use rivers to meet their wants and needs?” asks students to think about the many ways people use rivers. This question helps students to understand that rivers have numerous uses. In addition to the previous featured sources, the sources for this task help students to understand why rivers are important. Featured Source A is a reference guide explaining how people use rivers. Featured Source B is a resource explaining the importance of rivers. Featured Source D is a book about how a river was changed to provide for people’s needs.

Source A: This website explains some of the many ways people use rivers.
https://tinyurl.com/How-do-people-use-rivers

Source B: This website explains the importance of rivers for people and animals. The reader can also select from a list of other topics including River Pollution.
https://tinyurl.com/Why-are-rivers-important

Source C: Letting Swift River Go, This text relates Sally Jane’s experience of changing times in rural America, as she lives through the drowning of the Swift River towns in western Massachusetts to form the Quabbin Reservoir in order to provide the people of Boston with drinking water.
https://tinyurl.com/Letting-Swift-River-Go
Supporting Question 4

For the fourth supporting question, “How do people and rivers affect each other?” students extend their understanding of how people interact with rivers. In the formative task, students create a T-chart listing the positive and negative ways that people and rivers affect each other.

In addition to the resources from the previous supporting question, the featured sources here provide students with additional materials that allow them to build on their understanding of the impact of rivers on our lives. Featured Source A is a video, which explains how people pollute rivers. Featured Source B is the video that shows the positive and negative impact of rivers on people. Featured C is a picture book about the beauty of the Nashua River in Massachusetts was restored.

**Source A:** Although this video contains subject matter and vocabulary above second grade level, the video itself provides a graphic representation of the ugly consequences of polluting our water.
https://tinyurl.com/Polluting-Our-Water

**Source B:** This is a Slideshare presentation published in 2008 which explains how rivers affect people. Although the pictures refer to rivers from around the world, students can clearly see the relationship between people and rivers in the presentation.
https://tinyurl.com/How-rivers-affect-people

**Source C:** *A River Ran Wild* tells a story of how the modern-day descendants of the Nashua Indians and European settlers were able to combat pollution and restore the beauty of the Nashua River in Massachusetts. It is a story of restoration and renewal.
https://tinyurl.com/River-Ran-Wild-Environmental
Summative Performance Task

At this point in the inquiry, students have examined what a river is and which rivers are located in/near their community, how rivers are alike and different, and how they are used to meet people’s wants and needs. They have considered the impact of people on rivers as well as the affect rivers can have on a community. Students should be able to demonstrate the breadth of their understanding and their ability to use evidence from multiple sources to construct an evidence-based argument responding to the compelling question, “Is the relationship between people and rivers good or bad?” Students’ arguments will be written in a paragraph and will use evidence gathered from the study about rivers as support.

Student arguments will likely vary, but could include any of the following:

- The relationship between people and rivers is good because rivers provide people with drinking water, food, transportation, and recreation and people protect the rivers and the animals that live there.
- The relationship between people and rivers is bad because people litter the rivers, reroute them and damage ecosystems, companies pollute them, and rivers can cause flooding and damage to property.

Students have the opportunity to Take Informed Action by creating a collaborative slideshow to demonstrate the relationship between people and rivers. The creation of the slideshow will allow students to deliver information to the city council members about how the importance of rivers; thereby providing a public service to the community.

Students may also choose to design a poster to educate their community on the importance of taking care of our rivers. The posters could be placed in local libraries or places of business.