

A River Runs through It

Grade level: 3rd grade
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Length of unit: 11 lessons and culminating activity
(one lesson—15 minutes; six lessons—30 minutes; four lessons—60 minutes)

I. Abstract

This unit will take students around the world to visit rivers on six continents. Students will complete project-based activities centered on a theme: The geographical location of the river affects the society that develops around it. Students will learn about the people, plants, animals, houses, uses, and problems unique to a river on each continent.

II. Overview

- A. Concept Objectives
 - 1. Students will understand how geography affects natural resources.
 - 2. Students will understand how environment affects lifestyle.
- B. Content from the *Core Knowledge Sequence*
 - 1. 3rd grade American history and geography (page 71)
 - a. Important Rivers of the World
 - i. Terms: source, mouth, tributary, drainage basin
 - ii. Asia: Ob, Yellow (Huang He), Yangtze (Chang Jiang), Ganges, Indus
 - iii. Africa: Nile, Niger, Congo
 - iv. South America: Amazon, Parana, Orinoco
 - v. North America: Mississippi and major tributaries, Mackenzie, Yukon
 - vi. Australia: Murray-Darling
 - vii. Europe: Volga, Danube, Rhine
- C. Skill Objectives
 - 1. Students will be able to state peoples' economic uses of rivers. (*Colorado Model Content Standards for Geography 4.3*)
 - 2. Students will be able to describe factors affecting human settlement. (*Colorado Model Content Standards for Geography 4.4*)
 - 3. Students will be able to describe the ways people harm the rivers. (*Colorado Model Content Standards for Geography 5.1*)
 - 4. Students will be able to identify rivers on a map. (*Colorado Model Content Standards for Geography 1.1*)
 - 5. Students will be able to describe how a group of people would use their environment to help them survive. (*Colorado Model Content Standards for Geography 5.1*)
 - 6. Students will be able to identify characteristics of physical systems (*Colorado Model Content Standards 3.2*).

III. Background Knowledge

- A. For teachers

1. Hirsch, Jr. E.D. *What Your 3rd Grader Needs to Know*. New York, NY: Bantam Dell Publishing, 2001. 0-385-33626-8
- B. For students
 1. Location and name of the seven continents (from kindergarten, 1st, 2nd, 3rd grades)
 2. Location and importance of the equator (from 1st, 2nd, and 3rd grades)

IV. Resources

1. Darling, K. *Amazon ABC*. New York: Lothrop, Lee & Shepard Books, 1996. 0-688-13778-4. (Lesson 3)
2. Fowler, A. *Living Near a River*. Danbury, Connecticut: Children's Press, 2000. 0-516-27052-4. (Lesson 1)
3. Fowler, A. *The Nile River*. Danbury, Connecticut: Children's Press, 1999. 0-516-21559-0. (Lesson 4)
4. *Great Wall Across the Yangtze* [video recording]. PBS Home Video. Stardust Pictures, 2000. 0-7806-3336-9. (Lesson 6)
5. Hirsch, Jr. E.D. (editor). *Pearson Learning Core Knowledge History & Geography: 3rd grade*. Parsippany, NJ: Pearson Learning Group, 2002. 0-7690-5024-7. (Lessons 2, 3, 4, 5, 6, 7, 8)
6. Lewin, T. *Sacred River*. New York: Clarion Books, 1995. 0-395-69846-4. (Lesson 5)
7. Pipes, R. *World Habitats: Rain Forests*. Austin, Texas: Raintree Steck-Vaughn Publishers, 1998. 0-8172-5003-4. (Lesson 3)
8. Pirotta, S. *Rivers in the Rain Forest*. Austin, Texas: Raintree Steck-Vaughn Pub., 1999. 0-8172-5138-3. (Lesson 3)
9. Pollard, M. *Great Rivers: The Mississippi*. Tarrytown, NY: Benchmark Books, 1998. 0-7614-0502-X. (Lesson 2)
10. http://en.wikipedia.org/wiki/Murray_River (Lesson 8)
11. <http://user.intop.net/~jhollis/danube2.htm> (Lesson 7)
12. www.geocities.com/continents_2000 (Lesson 9)

V. Lessons

Lesson One: What is a River? (15 minutes)

- A. *Daily Objectives*
 1. Concept Objective(s)
 - a. Students will understand how environment affects lifestyle.
 2. Lesson Content
 - a. North America: Mississippi and its tributaries
 3. Skill Objective(s)
 - a. Students will be able to state peoples' economic uses of rivers. (*Colorado Model Content Standards for Geography 4.3*)
 - b. Students will be able to describe how a group of people would use their environment to help them survive. (*Colorado Model Content Standards for Geography 5.1*)
- B. *Materials*
 1. *Living by a River* by Alan Fowler
 2. chart paper or a white board/chalkboard
 3. marker
- C. *Key Vocabulary*
 1. **river**—Rivers are continuously-moving bodies of water that are larger than a stream.
- D. *Procedures/Activities*

1. Bring students to sit on carpet near a white board. Ask them, “What do you think of when you hear the word ‘river’?” (Possible answers: water, boats, fish, etc.)
 2. “Humans use rivers in many different ways. I am going to read you *Living by a River*. As I read, I want you to listen for all the ways the book tells how people use rivers.” Read *Living by a River* to the students.
 3. When you finish reading, ask students, “What ways do people use rivers?” (Possible answers: fishing, transportation, drinking water, irrigation) As students answer, write their ideas on chart paper or on a white board/chalkboard. Then ask them, “Are there any other ways we use rivers that the book didn’t tell us?” (Possible answers: swimming, boating, bathing) “During this unit on rivers around the world, we are going to travel to 6 of the 7 continents and look at some of their major rivers and how local people use them. Also, we are going to look at what else is around the rivers, such as plants and animals. By doing this, we will be able to notice not only what rivers have in common, but also how they can differ from one another.”
- E. *Assessment/Evaluation*
1. Teacher observation of students sharing how people use rivers.

Lesson Two: Rivers in North America (30 minutes)

- A. *Daily Objectives*
1. Concept Objectives
 - a. Students will understand how geography affects natural resources.
 2. Lesson Content
 - a. Terms: tributary
 - b. North America: Mississippi and major tributaries, Mackenzie, Yukon
 3. Skill Objective(s)
 - a. Students will be able to describe factors affecting human settlement (*Colorado Model Content Standards for Geography 4.4*).
 - b. Students will be able to identify rivers on a map. (*Colorado Model Content Standards for Geography 1.1*)
- B. *Materials*
1. *Great Rivers: The Mississippi* by M. Pollard
 2. Pearson 3rd grade texts, page 34
 3. 4x6 index cards cut in half (1/2 a card for each child)
 4. chart paper designed for Mississippi River (Appendix A)
 5. Tape
 6. Crayons or markers for each student
- C. *Key Vocabulary*
1. **tributary**—A tributary is a smaller river that flows into a larger river.
 2. **delta**—A delta is a triangular section of land created when silt deposits at the mouth of the river.
 3. **mouth**—The mouth is the end of a river, where it exits into another body of water .
 4. **source**—A source is the place from which a river originates.
- D. *Procedures/Activities*
1. Ask students if they know any rivers in North America (Possible answers: Mississippi River, Colorado River, Arkansas River.)
 2. Explain that today we are going to look at some important rivers in North America. “Although there are many rivers in North America, we are going to locate the Mackenzie, the Yukon, and the Mississippi. We are also going to find out what life is like on the Mississippi River.”

3. Pass out Pearson books to students. Have them turn to page 34 to locate the three rivers. This can also be done with any other North American map that has the rivers marked. Tell students to notice the geographical location of the rivers: the Mississippi is much farther south than the Yukon or the Mackenzie.
 4. Bring students to the carpet. “Although we found all three rivers on the map, today we are going to focus on what life is like around the Mississippi River. This book is called *Great Rivers: The Mississippi*. We are going to picture walk through the book to see what life is like around the Mississippi.” Picture walk the students to the following pages and think-aloud about the following ideas (you may also have students share things they notice as you picture walk):
 - page 9 shows a map—notice where its source (Great Lakes) and mouth/delta are (Gulf of Mexico)
 - page 11—notice the rivers that contribute (tributaries) to the Mississippi
 - page 17—notice that people use the river for trading
 - page 30—notice that farmers use the river to irrigate for cotton growing
 - pages 32 to 36—notice what life is like at the delta in the city of New Orleans
 - pages 38 to 40—notice what wildlife is on/in/near the Mississippi
 5. Explain to children that we will make a chart about each of the rivers that we study. Show them the empty chart you prepared for the Mississippi River (Appendix A). Give each child a half of a 4x6 index card. Assign each child to draw a picture of the plants, homes, animals, uses, problems, or people for the Mississippi River. Give children 5 minutes to complete their card. Have children come to the carpet near the chart. Go through each category; as you name the category, any student who drew a card for that category will share what he or she drew and why. Tape the card to the chart after the student shares.
 6. “You must have noticed that we only read about the Mississippi. I’ll bet that you can tell me some things about the Mackenzie and Yukon Rivers without even reading anything about them. Let’s look at the location of these two rivers. Are they more north or south than the Mississippi?” (North) After children answer, draw a Venn diagram on the white board, with Mississippi River on one side and the Yukon/Mackenzie Rivers on the other side. Lead them to identify other things that would be the same or different due to the geographic location of the rivers. (Possible answers: fish live in both rivers; people use both rivers for transportation; the Mackenzie and Yukon will freeze, but not the Mississippi; different types of plants grow around the rivers; the Mississippi has more people around it, so it probably has more pollution. If you have already studied Native Americans, remind students how the Inuit used the river.)
 7. “People around the Mississippi have similar lifestyles to our own lives, because we are in the same country. As we travel to other rivers, you will learn about the lifestyles of people whose lifestyles are not like ours.”
- E. *Assessment/Evaluation*
1. Teacher observes student responses on index cards.
 2. Teacher observes Venn diagram discussion.

Lesson Three: Rivers in South America (30 minutes)

A. *Daily Objectives*

1. Concept Objectives

- a. Students will understand how geography affects natural resources.
 4. Lesson Content
 - a. Terms: drainage basin
 - b. South America: Amazon, Parana, and Orinoco
 5. Skill Objective(s)
 - a. Students will be able to describe factors affecting human settlement (*Colorado Model Content Standards for Geography 4.4*).
 - b. Students will be able to identify rivers on a map. (*Colorado Model Content Standards for Geography 1.1*)
- B. *Materials*
1. *Amazon ABC* by K. Darling
 2. *Rivers in the Rain Forest* by S. Pirotta
 3. Pearson 3rd grade texts, page 35
 4. 4x6 index cards cut in half (1/2 a card for each child)
 5. chart paper designed for Amazon River (Appendix A)
 6. Tape
 7. Crayons or markers for each student
- C. *Key Vocabulary*
1. **drainage basin** – All the land that drains into the tributaries of a river is a drainage basin.
 2. **westernized culture** – A group of people whose lifestyle includes modern technology and economic resources is said to be a westernized culture.
- D. *Procedures/Activities*
1. Have students list rivers in North America (Answers: Mississippi River, Mackenzie River, Yukon River.)
 2. Explain that today we are going to look at some important rivers in South America. “Although there are many rivers in South America, we are going to locate the Amazon, the Parana, and the Orinoco. We are also going to find out how life on the Amazon is different from ours.”
 3. Pass out Pearson books to students. Have them turn to page 35 to locate the three rivers. This can also be done with any other South American map that has the rivers marked. Tell students to notice the geographical location of the Amazon River: point out that the drainage basin land area encompasses most of Brazil, Columbia, and Peru.
 4. Bring students to the carpet. “Although we found all three rivers on the map, today we are going to focus on what life is like along the Amazon River. This book is called *Rivers in the Rainforest*. We are going to picture walk through the book to see what life is like around the Amazon.” Picture walk the students to the following pages and think-aloud about the following ideas (you may also have students share things they notice as you picture walk):
 - page 7 – boy uses palm leaf as umbrella for working adult
 - pages 10-11 – mangrove trees, giant water lilies
 - pages 12-13 – mudskipper fish, basilisk lizard
 - page 14-15 – catfish, manatee
 - page 18-19 – houses and grazing rafts on stilts
 - pages 22-23 – huge logs on a barge, riverside market in canoes
 - pages 26-27 – mining pollution, tourist river trip
 5. “Let’s find out more about the plants and animals of the Amazon River from another book called *Amazon A B C*.” Picture walk through the book to see what animals and plants live around the Amazon River.

6. Explain to children that we will make a new chart for the Amazon River. Show them the empty chart you prepared (Appendix A). Give each child a half of a 4x6 index card. Assign each child to draw a picture of the plants, homes, animals, uses, problems, or people for the Amazon River. Give children 5 minutes to complete their card. Have children come to the carpet near the chart. Go through each category; as you name the category, any student who drew a card for that category will share what he or she drew and why. Tape the card to the chart after the student shares.
 7. “People around the Amazon have different lifestyles than ours. Many groups of people around the Amazon River still live off the land. They get everything they need to live from the river and the plant and animal resources around it. Most people who live in North America do not live off the land. We get everything we need from supermarkets and department stores. We call the way we live here ‘westernized culture.’ That means that we have advanced technological and economic lifestyles. We say that the people who live around the Amazon River have a ‘non-westernized culture’ because they do not have the technological and economic advantages that we do.”
 8. “Because these cultures can be so different, there are often problems that arise when they meet. Keeping this in mind, you are going to be put into groups of four to act out what you think might happen when people from these two different cultures meet.” Students may need you to demonstrate (possible scenario: Mississippians want to cut down trees in the rain forest, but the Amazonians try to explain that they use the tree for boats, food, shelter, etc.). Divide students into groups of four: two people from the Mississippi River and two people from the Amazon River). Allow students five to ten minutes to practice. Then have groups present skits in front of the class.
- E. *Assessment/Evaluation*
1. Teacher observes student responses on index cards.
 2. Teacher observes student skits.

Lesson Four: Rivers of Africa (30 minutes)

- A. *Daily Objectives*
1. Concept Objectives
 - a. Students will understand how geography affects natural resources.
 2. Lesson Content
 - a. Africa: Nile, Niger, Congo
 3. Skill Objective(s)
 - a. Students will be able to describe factors affecting human settlement (*Colorado Model Content Standards for Geography 4.4*).
 - b. Students will be able to identify rivers on a map. (*Colorado Model Content Standards for Geography 1.1*)
- B. *Materials*
1. *Nile River* by A. Fowler
 2. Pearson 3rd grade texts, page 33
 3. 4x6 index cards cut in half (1/2 a card for each child)
 4. chart paper designed for Nile River (Appendix A)
 5. Tape
 6. Crayons or markers for each student
- C. *Key Vocabulary*
1. **irrigation**– Irrigation means using water from a river to water crops in another location.

2. **desert**—A desert is a dry area of land that gets little moisture.
- D. *Procedures/Activities*
1. Review that we've learned about one river near westernized society (Mississippi) and one river near non-westernized society (Amazon). "Today, we are going to learn about a river that flows through both types of societies: the Nile River."
 2. Pass out Pearson books to students. Have them turn to page 33 to locate the three rivers. This can also be done with any other African map that has the rivers marked. Tell students to notice the geographical location of the Nile River, the Congo, and the Niger.
 2. Bring students to the carpet. Read *Nile River* to the students. Point out that as the river begins its journey, it goes through non-westernized cultures. At its delta, Cairo is a westernized city.
 3. Explain to children that we will make a new chart for the Nile River. Show them the empty chart you prepared (Appendix A). Give each child a half of a 4x6 index card. Assign each child to draw a picture of the plants, homes, animals, uses, problems, or people for the Nile River. Give children 5 minutes to complete their card. Have children come to the carpet near the chart. Go through each category; as you name the category, any student who drew a card for that category will share what he or she drew and why. Tape the card to the chart after the student shares.
 4. "Because Africa is such a large continent, it has many different ecosystems. The Nile travels mostly through the desert. The Congo, on the other hand, is in a rainforest, much like the Amazon. Let's look at this website <http://www.congo-river.com/index.php?module=articles&id=1807556206&cat=> to see what life is like around the Congo River." You can either take students to the school computer lab to have them each look, or you can show them using one laptop/desktop in the classroom."
 5. End the lesson by having student's help you create a Venn diagram to compare and contrast the Nile and Congo Rivers (Possible answers: same continent; Congo travels south, and the Nile travels north; animal and plant resources are different; both have some non-westernized societies living around them).
- E. *Assessment/Evaluation*
1. Teacher observes student responses on index cards.
 2. Teacher observes Venn diagram discussion.

Lesson Five: Rivers of India (30 minutes)

- A. *Daily Objectives*
1. Concept Objectives
 - a. Students will understand how geography affects natural resources.
 2. Lesson Content
 - a. Asia: Indus, Ganges
 3. Skill Objective(s)
 - a. Students will be able to describe how a group of people would use their environment to help them survive. (*Colorado Model Content Standards for Geography 5.1*)
 - b. Students will be able to identify rivers on a map. (*Colorado Model Content Standards for Geography 1.1*)
- B. *Materials*
1. *Sacred River* by T. Lewin
 2. Pearson 3rd grade texts, page 37
 3. 4x6 index cards cut in half (1/2 a card for each child)

4. chart paper designed for Ganges River (Appendix A)
5. Tape
6. Crayons or markers for each student
7. Construction paper of various colors
8. Scissors for each student
9. Glue for each student

C. *Key Vocabulary*

1. **Hinduism**—Hinduism is the major religion of people in India.
2. **sacred**—Something considered to be holy by people of a religion is said to be sacred.

D. *Procedures/Activities*

1. “Today, we are going to India. Most of the people in India practice the Hindu religion. Their religious beliefs cause them to view the Ganges River very differently than we view a river.”
2. Pass out Pearson books to students. Have them turn to page 37 to locate the two rivers. This can also be done with any other Asian map that has the rivers marked. Tell students to notice the geographical location of the Indus and Ganges Rivers.
3. Bring students to the carpet. Read *Sacred River* to the students. Briefly discuss how the Hindus worship the Ganges as a sacred river that gives salvation. We, however, view the river as a resource to be used by people.
4. Explain to children that we will make a new chart for the Ganges River. Show them the empty chart you prepared (Appendix A). Give each child a half of a 4x6 index card. Assign each child to draw a picture of the plants, homes, animals, uses, problems, or people for the Ganges River. Give children 5 minutes to complete their card. Have children come to the carpet near the chart. Go through each category; as you name the category, any student who drew a card for that category will share what he or she drew and why. Tape the card to the chart after the student shares.
3. “Remember that the book said that Hindus believe the Ganges could carry worldly troubles away. Worldly troubles mean things that worry you that are not spiritual. For example, your clothes, a fight with your friend, a hang nail, your size, or being late for school are all worldly troubles. They don’t matter in the grand scheme of life. Today, you are going to imagine that you share the belief that the Ganges River is sacred, and that it could carry your worldly troubles away. So, you are going to create a flower you can give to the river, just like the Hindus give the river *jai* flowers. On its petals, you are going to write the worldly troubles you have that the Ganges River could carry away.” Students should choose at least 3 colors of construction paper to create their flowers. Give them 15 minutes to make a flower and write their troubles on the petals.

E. *Assessment/Evaluation*

1. Teacher observes student responses on index cards.
2. Teacher observes the troubles children write on their flowers.

Lesson Six: Rivers of China (60 minutes)

A. *Daily Objectives*

1. Concept Objectives
 - a. Students will understand how geography affects lifestyle.
2. Lesson Content
 - a. Asia: Ob, Yellow, and Yangtze

3. Skill Objective(s)
 - a. Students will be able to describe the ways people harm the rivers. (*Colorado Model Content Standards for Geography 5.1*)
 - b. Students will be able to identify rivers on a map. (*Colorado Model Content Standards for Geography 1.1*)
- B. *Materials*
1. *Great Wall across the Yangtze* videocassette
 2. Pearson 3rd grade texts, page 37
 3. 4x6 index cards cut in half (1/2 a card for each child)
 4. chart paper designed for Yangtze River (Appendix A)
 5. Tape
 6. Crayons or markers for each student
 7. To Dam or Not to Dam rubric for each student (Appendix B)
 8. notebook paper for each student
 9. pencils for each student
- C. *Key Vocabulary*
1. **dam** – A dam is a physical barrier that blocks the water flow of a river.
 2. **resettlement** – Resettlement means having to find a new home.
- D. *Procedures/Activities*
1. Review problems that rivers might have. (Possible answers: flooding, pollution, drought) “Today, we are going to learn about a problem caused by the people who use a river.”
 2. Pass out Pearson books to students. Have them turn to page 37 to locate the three rivers. This can also be done with any other Asian map that has the rivers marked. Tell students to notice the geographical location of the Ob, Yellow, and Yangtze rivers.
 3. “Now, we are going to find out about a problem with the Yangtze River in the country of China. The Chinese government wants to build a dam across the Yangtze to control flooding and create clean energy. However, the dam will cause the river to overflow its banks and form a very large reservoir. This reservoir will flood many miles of land on which people, farms, cities, temples, and ancient ruins are currently located. However, not all the people in China agree that a dam should be built across the Yangtze. We will watch a video that shows the building of the dam and many areas along the river banks that will be underwater. The video will interview people who are building the dam, people who must move because of the dam, and people who care for the temples and ancient ruins that will be covered by water. You will need to decide if the dam should be built or not. Your job during the video is to take notes to help you decide which side you think is right. You will need facts from the movie to support your decision about whether to build the dam or not.”
 4. Watch the first 30 minutes of the video *Great Wall across the Yangtze*.
 5. Explain to children that we will make a new chart for the Yangtze River. Show them the empty chart you prepared (Appendix A). Give each child a half of a 4x6 index card. Assign each child to draw a picture of the plants, homes, animals, uses, problems, or people for the Yangtze River. Give children 5 minutes to complete their card. Have children come to the carpet near the chart. Go through each category; as you name the category, any student who drew a card for that category will share what he or she drew and why. Tape the card to the chart after the student shares.
 6. Briefly discuss the two sides of the dam presented in the video. (The dam will control flooding and create clean energy for millions of people in China.

However, it will displace thousands of people and submerge ancient temples and archeological sites. Also, this is the biggest dam ever built and is using untested technologies.) Pass out and review To Dam or Not to Dam rubric. Students use the rubric and notes from the video to write their opinion about whether the dam should be built or not.

7. End the lesson by having student's share their opinion about the dam and some of their supporting facts from the video with a partner.
- E. *Assessment/Evaluation*
1. Teacher observes student responses on index cards.
 2. Grade To Dam or Not to Dam paragraph with rubric

Lesson Seven: Rivers of Europe (30 minutes)

A. *Daily Objectives*

1. Concept Objective(s)
 - a. Students will understand how geography affects natural resources
2. Lesson Content
 - a. Europe: Volga, Danube, Rhine
3. Skill Objective(s)
 - a. Students will be able to state peoples' economic uses of rivers. (*Colorado Model Content Standards for Geography 4.3*)
 - b. Students will be able to identify rivers on a map. (*Colorado Model Content Standards for Geography 1.1*)

B. *Materials*

1. Danube River information cards (made by printing information from <http://user.intop.net/~jhollis/danube2.htm>)
2. Pearson 3rd grade texts, page
3. 4x6 index cards cut in half (1/2 a card for each child)
4. chart paper designed for Danube River (Appendix A)
5. Tape
6. Crayons or markers for each student

C. *Key Vocabulary*

1. **pollution** – Pollution is harmful things (such as chemicals or trash) that are deposited into the air, water, or land, which leads to unsafe conditions for living things.

D. *Procedures/Activities*

4. "Today, we are going to Europe and a river that travels through 12 different countries on its journey from the mountains to the sea."
5. Pass out Pearson books to students. Have them turn to page 36 to locate the three rivers. This can also be done with any other European map that has the rivers marked. Tell students to notice the geographical location of the Volga, Danube, and Rhine Rivers.
5. Bring students to the carpet. "The Danube River is the second longest river in Europe, where it is one of the major methods of transportation. One reason for this is the fact that it is the only major European river to flow west to east. Another reason is because the Danube River flows through 12 different countries in Europe. People use the river to travel and trade with other people also living along the river." Go over Danube River information on cards. (All information is from website page <http://user.intop.net/~jhollis/danube2.htm>)
6. Explain to children that we will make a new chart for the Danube River. Show them the empty chart you prepared (Appendix A). Give each child a half of a

4x6 index card. Assign each child to draw a picture of the plants, homes, animals, uses, problems, or people for the Danube River. Give children 5 minutes to complete their card. Have children come to the carpet near the chart. Go through each category; as you name the category, any student who drew a card for that category will share what he or she drew and why. Tape the card to the chart after the student shares.

6. “Remember that our information cards said that people along the Danube River have been polluting it for as long as they have lived along its riverbanks. Let’s use our Danube River problem cards to find out what people have done to the river over the years.” (Possible answers: dams, trash, industrial waste, oil/chemical spills from commercial tanker ships, water diversion for irrigation, wetland destruction)
 7. Review expectations for river ABC book.
 8. Brainstorm words for letters E and I.
 9. Students work on rivers ABC books.
- E. *Assessment/Evaluation*
1. Teacher observes student responses on index cards and pollution discussion.
 2. Teacher observes the river words children write in ABC book.

Lesson Eight: Rivers of Australia (30 minutes)

D. *Daily Objectives*

1. Concept Objective(s)
 - c. Students will understand how geography affects natural resources
2. Lesson Content
 - a. Australia: Murray-Darling
3. Skill Objective(s)
 - a. Students will be able to state peoples’ economic uses of rivers. (*Colorado Model Content Standards for Geography 4.3*)
 - b. Students will be able to identify rivers on a map. (*Colorado Model Content Standards for Geography 1.1*)

E. *Materials*

1. Murray-Darling River information cards (made by printing information from http://en.wikipedia.org/wiki/Murray_River)
2. Pearson 3rd grade texts, pages
3. 4x6 index cards cut in half (1/2 a card for each child)
4. chart paper designed for Murray-Darling River (Appendix A)
5. Tape
6. Crayons or markers for each student
7. white paper for each set of partners
8. Murray-Darling River Cruise Advertisement rubric—one per partnership (Appendix C)

F. *Key Vocabulary*

1. **advertisement**—An advertisement is a visual or written demonstration that encourages people to do certain things.

D. *Procedures/Activities*

1. “Today, we are going to Australia to visit a river that travels through southwestern Australia on its journey from the mountains to the sea.”
2. Pass out Pearson books to students. Have them turn to page 38 to locate the Murray-Darling River. This can also be done with any other Australian map that

has the rivers marked. Tell students to notice the geographical location of the Murray-Darling River.

3. "People along the Murray-Darling River have been using it to transport tourists and farm workers for over 100 years. Let's read in our *Pearson* book about a flying tour of Australia's Murray-Darling River."
4. Students read *Pearson* pages 23-24 chorally.
5. Bring students to the carpet. "The Murray-Darling River is the longest river system in Australia, where it is one of the major methods of transportation in southwestern Australia. One reason for this is the fact that it is the only major river in southwest Australia." Go over Murray-Darling River information on cards. (All information from http://en.wikipedia.org/wiki/Murray_River).
6. Explain to children that we will make a new chart for the Murray-Darling River. Show them the empty chart you prepared (Appendix A). Give each child a half of a 4x6 index card. Assign each child to draw a picture of the plants, homes, animals, uses, problems, or people for the Murray-Darling River. Give children 5 minutes to complete their card. Have children come to the carpet near the chart. Go through each category; as you name the category, any student who drew a card for that category will share what he or she drew and why. Tape the card to the chart after the student shares.
7. "Now, you and a partner will plan and create an advertisement for a river cruise along the Murray-Darling River. You will tell about the people and their homes, animals and plants of the river, how people use the river, and some problems with the river that your cruise customers might encounter along their river journey. Plan on sharing your advertisement with the class."
8. Review expectations for river advertisement by going over the rubric.
9. Student partners work on Murray-Darling River advertisement for 10 minutes (You may adjust the time as needed).
10. If time permits, students may share the information on their advertisement with the class.

E. *Assessment/Evaluation*

1. Teacher observes student responses on index cards.
2. Teacher evaluates the river cruise posters with rubric.

Lesson Nine: Rivers on the Internet (60 minutes)

A. *Daily Objectives*

1. Concept Objective(s)
 - a. Students will understand how geography affects natural resources.
 - b. Students will understand how environment affects lifestyle.
2. Lesson Content
 - a. Important Rivers of the World
 - i. Asia: Ob, Yellow (Huang He), Yangtze (Chang Jiang), Ganges, Indus
 - ii. Africa: Nile, Niger, Congo
 - iii. South America: Amazon, Parana, Orinoco
 - iv. North America: Mississippi and major tributaries, Mackenzie, Yukon
 - v. Australia: Murray-Darling
 - vi. Europe: Volga, Danube, Rhine
3. Skill Objective(s)
 - a. Students will be able to state peoples' economic uses of rivers. (*Colorado Model Content Standards for Geography 4.3*)
 - c. Students will be able to describe how a group of people use their environment to help them survive. (*Colorado Model Content Standards for*

Geography 5.1)

- B. *Materials*
 - 1. world map
 - 2. computers with Internet access (preferably one for each student); if you have no computers available, you may print out information from the Internet about the rivers we have studied, and the students could use the printed information
 - 3. one blank white paper for each student
 - 4. markers for each student
 - 5. world rivers list for each student (Appendix D) *optional*
- C. *Key Vocabulary*
 - 1. **society**—A society is a group of people with common beliefs and daily lives.
- D. *Procedures/Activities*
 - 1. Open the lesson by having students recall information about some of the rivers we have discussed as you point to the rivers on a large world map.
 - 2. Say, “Today you are going to have a chance to investigate a river of your choice. Although we saw where many rivers are located, we did not study each one in-depth. You are going to choose a river and research it on the Internet. Using the information you find on the Internet, you will create a chart like we have been making for the society around the river you choose.” Make a list on the board of the rivers we’ve located. (Or, give students the world rivers list from Appendix D.) Have students choose one river. After they choose, give them a piece of paper to set up like the major river charts from previous lessons. (Appendix A).
 - 3. When students have chosen a river and prepared a chart, take them to the computer lab. They should type in the name of their river and search through the links to answer the areas of their chart (one recommended site to try is www.geocities.com/continents_2000). You should circulate and assist students.
 - 4. Allow students enough time to research and decorate their charts.
- E. *Assessment/Evaluation*
 - 1. Teacher observes students researching.
 - 2. Teacher observes students’ charts.

Lesson Ten: Evaluation (60 minutes or 20 minute chunks throughout the week)

- A. *Daily Objectives*
 - 1. Concept Objective(s)
 - a. Students will understand how geography affects natural resources.
 - 2. Lesson Content
 - a. Important Rivers of the World
 - i. Terms: source, mouth, tributary, drainage basin
 - ii. Asia: Ob, Yellow (Huang He), Yangtze (Chang Jiang), Ganges, Indus
 - iii. Africa: Nile, Niger, Congo
 - iv. South America: Amazon, Parana, Orinoco
 - v. North America: Mississippi and major tributaries, Mackenzie, Yukon
 - vi. Australia: Murray-Darling
 - vii. Europe: Volga, Danube, Rhine
 - 3. Skill Objective(s)
 - a. Students will be able to identify characteristics of physical systems (*Colorado Model Content Standards for Geography 3.2*).
 - b. Students will be able to describe how a group of people would use their environment to help them survive. (*Colorado Model Content Standards for Geography 5.1*)
- B. *Materials*

1. ABC books for each student (5 blank white papers stapled in half to form a book)
 2. ABC River Book rubric for each student (Appendix F)
 3. Sample ABC River Book terms—teacher only (Appendix E)
 4. crayons, and pencils for each student
- C. *Key Vocabulary*
1. **Vocabulary**—Vocabulary is a fancy term for words.
- D. *Procedures/Activities*
1. Say, “We have learned a lot about different rivers around the world. We have learned where they are, what they’re called, how people live around them, and what natural resources grow around them. Today, you are going to show me all that you have learned about vocabulary related to rivers.”
 2. Pass out ABC River Books and rubrics. Go over the rubric with the students (2 words will need to go on each page of the ABC book in order to fit all 26 letters). Say, “I expect that you to use words that show me what you learned about rivers. For example, if you put ‘car’ for ‘c’ and write ‘sometimes cars fall into rivers,’ I will count that as incorrect, because you have not shown me what you know about rivers.”
 3. Allow students to begin working on river books. You may wish to brainstorm ideas for each letter, if students are having trouble thinking of words (see Appendix E). Students may need more than 60 minutes to complete this activity. Allow additional time if needed.
- E. *Assessment/Evaluation*
1. Teacher grade ABC River Books with ABC River Book rubric

Lesson Eleven: Evaluation (60 minutes)

- A. *Daily Objectives*
1. Concept Objective(s)
 - a. Students will understand how environment affects lifestyle.
 2. Lesson Content
 - b. Important Rivers of the World
 - viii. Terms: source, mouth, tributary, drainage basin
 - ix. Asia: Ob, Yellow (Huang He), Yangtze (Chang Jiang), Ganges, Indus
 - x. Africa: Nile, Niger, Congo
 - xi. South America: Amazon, Parana, Orinoco
 - xii. North America: Mississippi and major tributaries, Mackenzie, Yukon
 - xiii. Australia: Murray-Darling
 - xiv. Europe: Volga, Danube, Rhine
 3. Skill Objective(s)
 - a. Students will be able to identify characteristics of physical systems (*Colorado Model Content Standards for Geography 3.2*).
 - b. Students will be able to describe how a group of people would use their environment to help them survive (*Colorado Model Content Standards for Geography 5.1*).
- B. *Materials*
1. A New River is Discovered! rubric for each student (Appendix G)
 2. paper plates for each student
 3. play dough or clay in various colors
 4. plastic knives for cutting and shaping play dough
- C. *Key Vocabulary*
1. **Diorama**—A diorama is a three-dimensional representation of a scene.
- D. *Procedures/Activities*

1. Say, "Throughout this unit, we have been learning how the location of a river affects the resources around it, which in turn affects the societies which develop around it. Today, you are going to show that you understand that by creating natural resources and a society for an imaginary river."
 2. Pass out and go over A New River is Discovered! rubric. Answer any questions students may have.
 3. Distribute one paper plate per student. Allow them to use several colors of play dough to create their dioramas. As they finish, evaluate their work according to the rubric. Some students may need to explain to you how their dioramas meet the rubric criteria, which is why they need to be present when you grade the diorama.
 4. If you have extra time, students may share their dioramas with a partner or in front of the class.
- F. *Assessment/Evaluation*
1. Teacher grades dioramas with rubric

VI. Culminating Activity

To close this unit, students will put on a skit of what it would be like to travel down one of the rivers we've studied. Put them in groups of 4 (one student will be the river, one a person, one a plant, and one an animal. They should follow the River Skit Group Rubric (Appendix H) to know what the teacher expects. This activity can take one class period or be lengthened into several. The teacher may choose for students to write scripts before practicing, make costumes, and even present the skits for their parents. If students present for their parents, grade them with the rubric beforehand, and be sure to advise them on any incorrect information they may have in their skits.

VI. Handouts/Worksheets

- A. Appendix A: Template for Chart Paper
- B. Appendix B: To Dam or Not to Dam Checklist
- C. Appendix C: Murray-Darling River Cruise Checklist
- D. Appendix D: World Rivers List
- E. Appendix E: Sample ABC River Book Terms
- F. Appendix F: ABC River Book Rubric
- G. Appendix G: A New River is Discovered! Checklist
- H. Appendix H: River Skit Group Rubric

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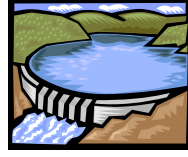
Appendix A

Template for chart paper

Name of River
Continent

People	Houses
Plants	Animals
Uses	Problems

Appendix B



To Dam or Not to Dam? Checklist

	<u>I check</u>	<u>Teacher checks</u>
◆ I used the correct Step-Up format.	yes no	yes no
◆ I stated my opinion with an O/P green.	yes no	yes no
◆ I used 4 transition words.	yes no	yes no
◆ All sentences are complete and not run-ons.	yes no	yes no
◆ I check for and corrected CUPS mistakes.	yes no	yes no
◆ All sentences have at least 7 words.	yes no	yes no
◆ I used at least 3 examples from the video.	yes no	yes no

Secure – 7 “yes” Developing = 6 to 4 “yes” Beginning = 3 or fewer “yes”



To Dam or Not to Dam? Checklist

	<u>I check</u>	<u>Teacher checks</u>
◆ I used the correct Step-Up format.	yes no	yes no
◆ I stated my opinion with an O/P green.	yes no	yes no
◆ I used 4 transition words.	yes no	yes no
◆ All sentences are complete and not run-ons.	yes no	yes no
◆ I check for and corrected CUPS mistakes.	yes no	yes no
◆ All sentences have at least 7 words.	yes no	yes no
◆ I used at least 3 examples from the video.	yes no	yes no

Secure – 7 “yes” Developing = 6 to 4 “yes” Beginning = 3 or fewer “yes”

Appendix C

Murray-Darling River Cruise Advertisement Checklist

	I Check		Teacher Checks	
I have a title for my cruise advertisement.	Yes	No	Yes	No
I tell about the people on the river.	Yes	No	Yes	No
I tell about the homes on the river.	Yes	No	Yes	No
I tell about the animals on the river.	Yes	No	Yes	No
I tell about the plants on the river.	Yes	No	Yes	No
I tell about the uses of the river.	Yes	No	Yes	No
I tell about problems with the river.	Yes	No	Yes	No
I have at least 3 pictures on my advertisement.	Yes	No	Yes	No
I have contact information on my advertisement.	Yes	No	Yes	No

Secure - 8 or 9 "Yes"

Developing - 6 or 7 "Yes"

Beginning - 5 or less "Yes"

Murray-Darling River Cruise Advertisement Checklist

	I Check		Teacher Checks	
I have a title for my cruise advertisement.	Yes	No	Yes	No
I tell about the people on the river.	Yes	No	Yes	No
I tell about the homes on the river.	Yes	No	Yes	No
I tell about the animals on the river.	Yes	No	Yes	No
I tell about the plants on the river.	Yes	No	Yes	No
I tell about the uses of the river.	Yes	No	Yes	No
I tell about problems with the river.	Yes	No	Yes	No
I have at least 3 pictures on my advertisement.	Yes	No	Yes	No
I have contact information on my advertisement.	Yes	No	Yes	No

Secure - 8 or 9 "Yes"

Developing - 6 or 7 "Yes"

Beginning - 5 or less "Yes"

Appendix D

World Rivers

1. Africa: Nile, Niger, Congo
2. Asia: Ob, Yellow (Huang He), Yangtze (Chang Jiang), Ganges, Indus
3. Australia: Murray-Darling
4. Europe: Volga, Danube, Rhine
5. North America: Mississippi and major tributaries (Ohio, Missouri), Mackenzie, Yukon
6. South America: Amazon, Parana, Orinoco

World Rivers

1. Africa: Nile, Niger, Congo
2. Asia: Ob, Yellow (Huang He), Yangtze (Chang Jiang), Ganges, Indus
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5. North America: Mississippi and major tributaries (Ohio, Missouri), Mackenzie, Yukon
6. South America: Amazon, Parana, Orinoco

Appendix E

Sample ABC River Book Terms

Note: These terms would be acceptable, if students explain how the term relates to a river.

- A** Africa, Asia, Australia, Amazon River
- B** Brazil, bird, Blue Nile River, boat
- C** China, Congo River, Caspian Sea, canoe
- D** Danube River, drink, dam, delta, Darling River, drainage basin
- E** Europe, eggs of fish, electricity, Equator, Egypt
- F** fish, floods, flowers
- G** Ganges River
- H** Huang He River, houses, hydroelectric power, Hindus
- I** India, Indus River, irrigation
- J** jai flowers, jungle, junk in the river
- K** kangaroo
- L** low tide, longest river
- M** mouth, Mississippi River, Mackenzie River, Murray River, monsoon
- N** Niger River, Nile River, North America
- O** Ob River, Ohio River, Orinoco River
- P** Parana River, pollution, Pacific Ocean
- Q** Quetzal (bird in the Amazon Rain Forest)
- R** river, Rhine River, rainy season
- S** source, South America
- T** Three Gorges Dam, tributaries
- U** underwater, uses
- V** Volga River
- W** water, westernized
- X** X-ray Fish (lives in the Amazon River)
- Y** Yangtze River, Yukon River
- Z** Zaire (Congo runs through Zaire)

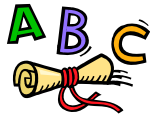
Appendix F



ABC River Book Rubric

Secure	Developing	Beginning
<ul style="list-style-type: none"> • The cover has a title, author’s name, and a colored picture that relates to the topic. • Each letter has at least one sentence that relates to rivers. • Each letter has a colored picture that relates to the sentence. 	<ul style="list-style-type: none"> • The cover is missing a title, author’s name, or a colored picture that relates to the topic. • 25 to 18 letters have at least one sentence that relates to rivers. • 20 letters have a colored picture that relates to the sentence. 	<ul style="list-style-type: none"> • The cover only has title, author’s name, or a colored picture that relates to the topic. • Fewer than 18 letters have at least one sentence that relates to rivers. • Fewer than 20 letters have a colored picture that relates to the sentence.

Please highlight the bullets that you believe describe your presentation. The teacher will circle the bullets she believes describe your presentation.



ABC River Book Rubric

Secure	Developing	Beginning
<ul style="list-style-type: none"> • The cover has a title, author’s name, and a colored picture that relates to the topic. • Each letter has at least one sentence that relates to rivers. • Each letter has a colored picture that relates to the sentence. 	<ul style="list-style-type: none"> • The cover is missing a title, author’s name, or a colored picture that relates to the topic. • 25 to 18 letters have at least one sentence that relates to rivers. • 20 letters have a colored picture that relates to the sentence. 	<ul style="list-style-type: none"> • The cover only has title, author’s name, or a colored picture that relates to the topic. • Fewer than 18 letters have at least one sentence that relates to rivers. • Fewer than 20 letters have a colored picture that relates to the sentence.

Please highlight the bullets that you believe describe your presentation. The teacher will circle the bullets she believes describe your presentation.

Appendix G

A New River is Discovered! Checklist

In the Australian Outback, scientists have discovered a new river. Its source is in the mountains of central Australia. It winds through the desert until it reaches its mouth on the south side of Australia and feeds into the Indian Ocean.

What types of societies will these scientists find living along the river?

Diorama	I check	Teacher checks	Presentation	I check	Teacher checks
I show a river.			I described all the things on my diorama.		
I show 2 houses.			I told 2 ways the society uses the river.		
I show 1 person.			I described their method of transportation on the river.		
I show 2 plants.			I told 2 problems the river has.		
I show 1 animal on land.			All things correctly match the location chosen (either near the ocean, mountains, or desert).		
I show 1 animal in the river.					
All things correctly match the location chosen (either near the ocean, mountains, or desert).					

Secure = 12 or 11 checks

Developing = 10 to 7 checks

Beginning = 6 or fewer checks

Comments:

Appendix H

River Skit Group Rubric

Group member names: _____

	We prepared it.	Teacher saw it during presentation.
<p>Narrator (River)</p> <ul style="list-style-type: none"> ➤ One person acts as the narrator, talking as the river. ➤ The narrator tells which river it is. ➤ The narrator tells the continent on which the river is located. ➤ The narrator tells what landforms are near the river (mountains, deserts, forests, etc.). 		
<p>Person</p> <ul style="list-style-type: none"> ➤ The river meets a person from a river community along the way. ➤ The person tells what the lifestyle of the community is like. ➤ The person tells how the people use the river. 		
<p>Plant</p> <ul style="list-style-type: none"> ➤ The river meets a plant along the way. ➤ The plant tells what type of vegetation it is. ➤ The plant names some other vegetation resources in the area. ➤ The plant tells how the people use the plant resources. 		
<p>Animal</p> <ul style="list-style-type: none"> ➤ The river meets an animal along the way. ➤ The animal tells what type of animal it is. ➤ The animal names some other animals in the area. ➤ The animal tells how the people treat the animals. 		
<p>All</p> <ul style="list-style-type: none"> ➤ The play uses at least 3 props. ➤ All characters announce and are loud. ➤ All characters tell information that correctly matches the river chosen. 		

Secure = 18 to 16 checks Developing = 15 to 10 checks Beginning = 14 or fewer checks

Comments: