

RIVER FEATURES

Prep Time: 15 minutes

Teaching Time: 1.25 hours

INSTRUCTIONS
Grade 3



Science Concept:

Rivers have different features. (NOTE: This lesson should occur at the end of a unit on rivers. The type of river features discussed will vary based on previous class discussion.)

Objectives:

The student will:

- identify features of rivers;
- make and record observations; and
- write a paragraph.

GLEs Addressed:

Science

[3] SA1.2 The student demonstrates an understanding of the processes of science by observing and describing the student's own world to answer simple questions.

[3] SD2.1 The student demonstrates an understanding of the forces that shape Earth by identifying and comparing a variety of Earth's land features (i.e., rivers, deltas, lakes, glaciers, mountains, valleys, and islands).

Writing

[3] W1.1.2 The student writes about a topic by writing a paragraph on a single topic with two or more supporting details.

Vocabulary:

bed load - the sand, gravel, boulder,s or other debris transported by rolling or sliding along the bottom of a stream

braided river - a river that carries sediment as bed load

flow - to move steadily and continuously in a current or stream

rapids - a section of river where slope and flow velocity both increase

riverbank - the sides of a stream channel (alt.: the slopes bordering a river)

riverbed - the bottom of a stream channel (alt.: the area between the banks of a river, ordinarily covered by water)

river channel/course - a watercourse, or natural channel along which water flows

source - a spring or fountainhead from which a river or stream issues

waterfall - a cascade of water falling from a height

Materials:

- Newspaper
- Aluminum foil
- Soil mixture*
- Large plastic tubs (one per group)
- Wood block to elevate tub (one per group)
- Water

* For best results use diatomaceous (a soft, fine-grained deposit containing the skeletal remains of diatoms, formed in lakes and ponds) soil.

Activity Procedure:

Please refer to the assessment task and scoring rubric located at the end of these instructions. Discuss the assessment descriptors with the class before teaching this lesson.

Gear Up

Process Skills: communicating and describing

1. Ask the class to imagine that they are going on a field trip to a river. Have students close their eyes and picture themselves flying above the river, following its course. Remind students this is pretend. Ask questions, including:
 - a. What do you see?
 - b. We are at the beginning of the river, what is there?
 - c. As we fly along what else appears?
 - d. Now we are at the end of the river, what do you see?
2. Ask students about the features of rivers they just “saw.” Create a list on the board of the students’ river features.

Explore

Process Skills: communicating, observing, describing, questioning, and investigating

3. Ask students how they can make a river. Direct them to think about the river features that they have learned about and discussed (prior to this lesson).
4. Explain students will work in groups to make a river. Divide students into small groups and distribute a large plastic tub, wood block, soil mixture, tin foil, and newspaper to each group. Provide groups with water or access to water. Encourage students to be creative. As students work, circulate around the room observing and questioning.

Generalize

Process Skills: observing, describing, inferring, and communicating

5. Ask the class the following questions:
 - a. How did water get into your river?
 - b. Did your water flow? Describe how it flowed.
 - c. What did you observe in your river?
 - d. What happened to the land (soil)?

Apply

Process Skills: describing, communicating, and observing

6. Take a field trip to a local river and observe its features.
7. Ask students to label at least three features of the river on a diagram they create.
8. Ask students to write a paragraph that has at least two details about three or more river features. Remind students to include a topic sentence, details, capitals and periods.

RIVER FEATURES

RUBRIC

Assessment Task

Ask students to write a paragraph that has at least two details about three or more river features. Remind students to include a topic sentence, capital letters, and periods.

Rubric

Objective	GLE	Below Proficient	Proficient	Above Proficient
The student makes and records observations.	[3] SA1.2	The student makes and records observations about two or fewer features of rivers.	The student makes and records observations about three features of rivers.	The student makes and records observations about four or more features of rivers.
The student identifies features of rivers.	[3] SD2.1	The student identifies two or fewer features of rivers.	The student identifies three features of rivers.	The student identifies four or more features of rivers.
The student writes a paragraph.	[3] W1.1.2	The student writes a paragraph about river features with one or no supporting details.	The student writes a paragraph about river features with two supporting details.	The student writes a paragraph about river features with three or more supporting details.