



Lesson: Taking Care of Our Rivers

(To follow Amplify CKLA K, Knowledge 11: Taking Care of the Earth, Lesson 9: Willy the Waterdrop)

At a Glance

In this lesson, students extend their understanding of the impact of freshwater pollution by investigating the Nashua River's history of pollution and clean up.

Primary Focus Objectives

- Students will examine and discuss photographs and maps related to the Nashua River.
- Students will listen to and discuss a non-fiction picture book about the Nashua River.
- Students will use drawing and writing to show the changes in the Nashua River over time.

Formative Assessment

- Non-fiction response

Standards

CCSS.ELA-LITERACY.RI.K.3

With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.

CCSS.ELA-LITERACY.W.K.3

Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.

Materials

- Image: [Banks of the Nashua River](#)
- Vocabulary Card: tributary
- Focus Text Facts: Where is the Nashua River?
- Focus Text: *A River Ran Wild* by Lynne Cherry (Clarion Books, 2002)
- "A River Changes" worksheet

Time Needed

One to two 30-40 minute class sessions

Learning Activity

1. **Analyze the photograph.** Project "Banks of the Nashua River" and conduct a brief Notice and Wonder exercise with students. (5 minutes)
2. **Discuss the Vocabulary Card.** Project or display the Vocabulary Card. Discuss the word "watershed" and connect the definition to the scene in the photograph. (10 minutes)
3. **Examine Focus Text Facts.** Project or distribute copies of "Where is the Nashua River?" Examine the map and read aloud the supporting details. (15 minutes)
4. **Share the Focus Text.** Read aloud from *A River Ran Wild* by Lynne Cherry. Connect the text to the photograph and the map. (20 minutes)
5. **Complete the worksheet.** Distribute the worksheet and support students as they draw three images of the Nashua River over time. (20 minutes)



Educator Rationale and Answer Guide

Connection to Amplify

In this lesson, students examine a variety of sources and listen to a non-fiction picture book about the Nashua River to extend their understanding of the impact of water pollution on watersheds. Students develop historical thinking skills by creating a reflection that shows the change of the river over time.

Analyze the photograph

Before sharing specific details about the scene in the photograph, spend a few minutes asking students to look closely at the image and share what they notice and what they wonder. Collect these observations in a t-chart. (A template is provided.) Then, tell students the photograph shows an area on the banks of the Nashua River, which is in New Hampshire. The photograph is about 50 years old. Share information from the photo caption.

Discuss the Vocabulary Card

Explain that the Nashua River is a tributary of the Merrimack River. That means they are connected; the Nashua River is a smaller river that flows into the Merrimack. So, the water from the Nashua River mixes with the water of the Merrimack River. Remind students about the photograph. Help them understand that pollution near one river can make its way into other rivers.

Examine Focus Text Facts

This page shows a map of the Nashua River and surrounding rivers. Give students time to look at the map and observe how the Nashua River connects to many other rivers and lakes. Read aloud the notes alongside the map. If possible, show students where on the map their school is and talk about the waterways that are nearby. How close can they get to the Nashua River from their school by just following rivers?

This is a good place to pause if dividing the lesson across two class sessions.

Read the Focus Text

Share as much of *A River Ran Wild* as is appropriate for your class. Emphasize the concept of change over time and draw students' attention to images that illustrate this change. Help them understand that the people involved with cleaning up the river were not just thinking about themselves and the land and water near them, but about people, animals, and plants that were connected to the Nashua River by other rivers.

Complete the worksheet

Distribute the worksheet and explain to students that they have three spaces to show how the river changed over time. Support students as they illustrate the spaces and then write or dictate captions for each illustration. Consider having students share with a small group what they chose to illustrate.



Banks of the Nashua River



Source: Records of the Environmental Protection Agency, U.S. National Archives Records and Administration



Notice and Wonder: Banks of the Nashua River

Notice	Wonder



WATERSHED

Definition: An area of land that drains its groundwater into shared rivers, lakes, and streams.

How to use it: Over 2 million people live in the Merrimack River **watershed**.

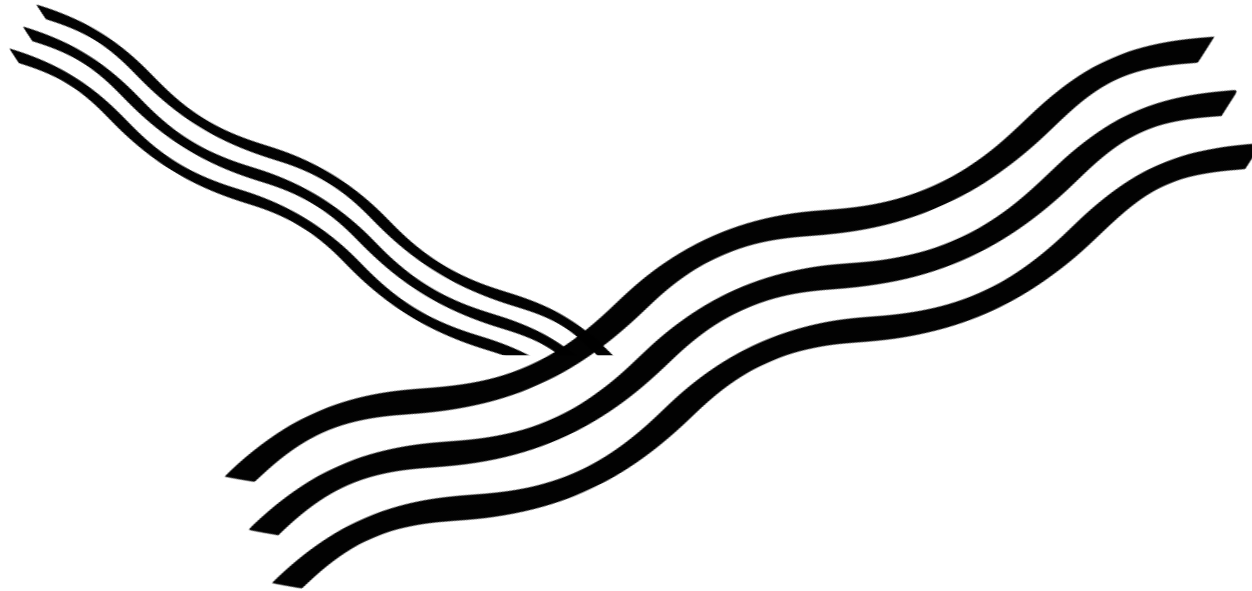




TRIBUTARY

Definition: A smaller river that flows into a larger river.

How to use it: The Nashua River is a **tributary** of the Merrimack River.



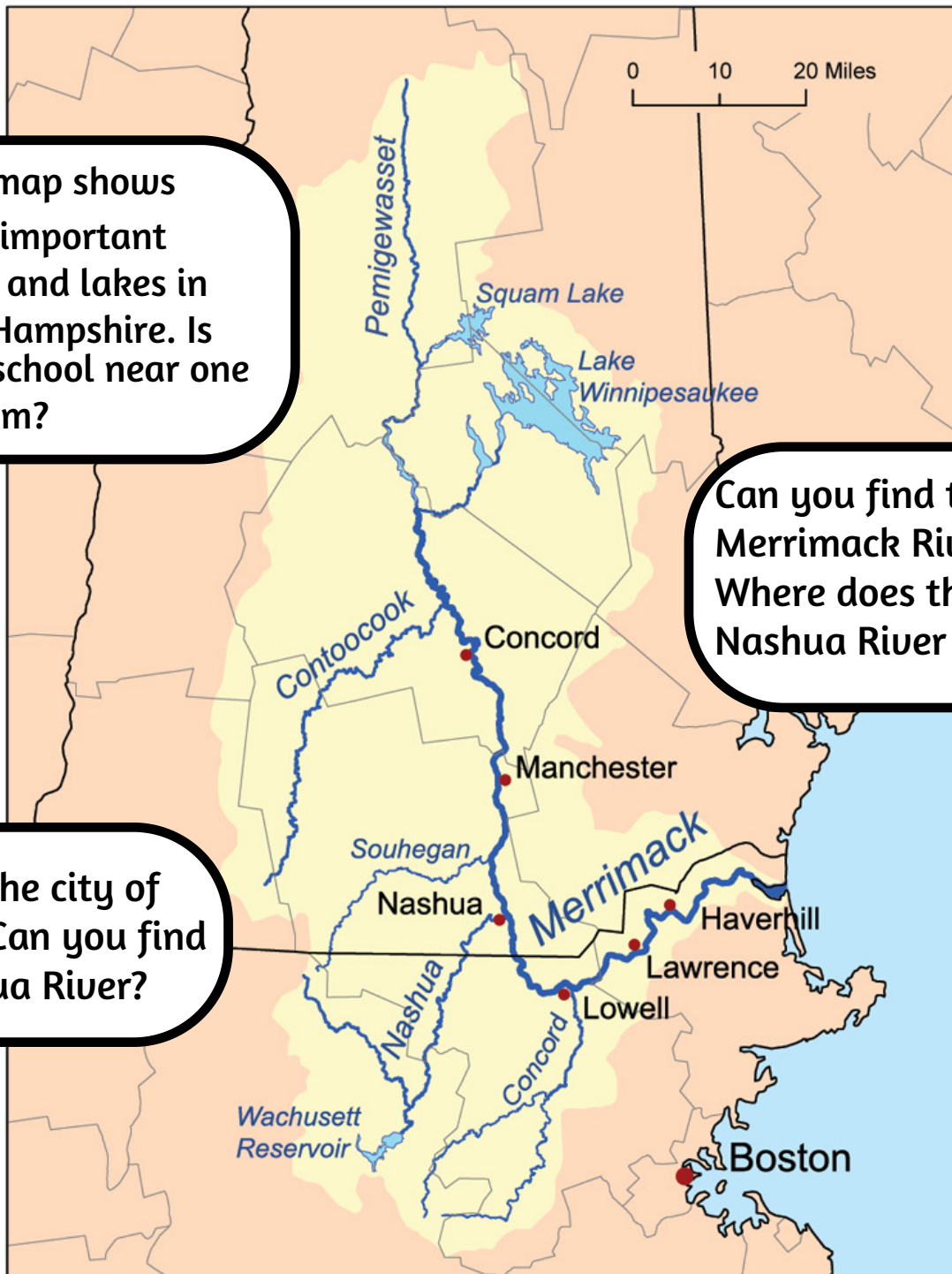


Where is the Nashua River?

This map shows some important rivers and lakes in New Hampshire. Is your school near one of them?

Can you find the Merrimack River? Where does the Nashua River meet it?

Look for the city of Nashua. Can you find the Nashua River?



Source: americanrivers.org



Mason's Challenge

The light shading around the rivers on the map represents the watershed shared by the rivers. What does that mean?

A River Changes

How did the Nashua River change over time? Draw three pictures of the river in the top boxes. Describe your drawings in the bottom boxes.
