American Rivers, the country’s leading river protection organization, created this compilation of teaching resources to assist educators and parents across the country to connect elementary-aged students to their hometown rivers and shape the next generation of river stewards and environmental advocates.

We have listed numerous free lesson plans and activities geared toward parents and elementary school teachers. They provide a variety of hands-on activities to help students interact with the environment and discover how they can best care for our nation’s natural resources and rivers.

The recommended lesson plans adhere to state curriculum standards or the National Science Education Standards and contain information about pollution, recycling, clean water and sustainability.

The activities will give students an appreciation for and knowledge of the importance of clean water in their lives. We hope you also decide to take action in your local communities by hosting cleanups on your local river or stream.

ON THE COVER: (clockwise from top)
- Lower Salt River, AZ. Photo by Tom Corey Images & Natural Restorations
- East Fork Little Miami River, OH. Photo by Becky McClatchey
- Winooski River, VT. Photo by Larry Montague
- Lower Salt River, AZ. Photo by Tom Corey Images & Natural Restorations
Millions of tons of trash end up in our nation’s rivers and streams each year. And it is more than just an eyesore; trash can contaminate our drinking water and threaten wildlife. Volunteer-led river cleanups are an effective tool to engage students and communities, keep our waterways clean and draw attention to the issue of pollution. You and your students can work together to clean up your river and effectively restore waterways by keeping recreation areas safe, wildlife habitat healthy and waters swimmable and fishable.

For over 25 years, American Rivers’ National River Cleanup® program has mobilized, supported and engaged millions of cleanup volunteers, students and organizers to keep our rivers safe.

FOR ADDITIONAL RESOURCES, TO ORGANIZE A CLEANUP OR LEARN MORE, VISIT AMERICANRIVERS.ORG/CLEANUP.
K-5 LESSON PLANS & ACTIVITIES

HABITATS & WILDLIFE

Lesson Plans and Webinars / National Wildlife Federation
Student introduction to wildlife and wildlife behavior, habitat, species identification concepts and ecosystems.

Planting a Tree / Dakota Valley Recycling
Students in grades 1-3 learn basic plant needs and participate in a community service project to foster stewardship.

Water is Life / Jeffers Foundation
Lesson with activities exploring the concept of habitats, physical characteristics and behaviors of native animals.

RECYCLING & WASTE REDUCTION

Lesson Plan: Breaking the Paper Chain / Dakota Valley Recycling
Provides information for students in grades 4-5 to evaluate their daily use of paper products and learn the importance of paper reduction and its impact on our planet.

The Life of a Soccer Ball / U.S. Environmental Protection Agency
Placemat containing information about the life cycle of a soccer ball, tips to taking care of or reusing your old ball, a maze activity and more.

Natural Inquirer / Cradle of Forestry in America Interpretive Association and USDA Forest Service
Program with a variety of science education materials for pre-K through grade 12.

Needs and Wants Lesson Plan / Dakota Valley Recycling
Teaches students in grades 4-5 the difference between “need” and “want” and the impact of responsible consumer habits on environmental efforts.

Personal Trash Choices Activity / California Coastal Commission
Group activity introduces a complex real-world problem, demonstrates to students their impact on the local environment and how to combat the problem by evaluating their personal trash choices.

Recycling & Waste Reduction Lessons & Activities / Wake County Government
A compilation of grades K-5 lesson plans by unit and topic that meet NC state curriculum standards and have been reviewed and tested in formal classroom settings.

Talking Trash & Taking Action / Ocean Conservancy and NOAA Marine Debris
Flexible curriculum for all ages with lessons and activities about marine debris, instructions on how to organize a beach cleanup and debris prevention.

WRAP: Waste Reduction Awareness Program / Jeffers Foundation
Information and resources on how to reduce waste in elementary school lunches.
OUTDOOR SCHOOL YARD ACTIVITIES

Organize a River Cleanup / American Rivers
Resource dedicated to making your cleanup a success. Includes a step-by-step handbook to cleanup organization, recycling guide and more.

Outdoor Curriculum Ideas / Jeffers Foundation
Regular curriculum activities for the outside classroom for all subjects ranging from counting trees exercises to creating geographical maps of an area to a “noun hunt-walk.”

K-5 LESSON PLANS & ACTIVITIES (cont.)

WATER QUALITY

Bridging the Watershed Curriculum Modules / Alice Ferguson Foundation
Core modules on exotic invaders, runoff and sediment, litter, macroinvertebrates and water quality. Modules use the five E’s of the teaching/learning cycle – Engage, Explore, Explain, Elaborate and Evaluate.

Stream Side Science, Lessons by Grade / Utah State University Extension
Ten lessons on aquatic macroinvertebrates, water sources and the water cycle. Includes graphing, ratios and charades activities.

Water Lesson Plans / Pennsylvania State University
Educator generated lesson plans about water and segmented by grade level.

WATER RESOURCES

All the Water in the World / U.S. Environmental Protection Agency
Lesson about water sources and geography with a demonstration activity to show how water is distributed across different water sources using the concept of percentages.

Drinking Water Activities for Students and Teachers / U.S. Environmental Protection Agency
K-12 student activities and lesson plans to provide a basic understanding of drinking water vocabulary and where water comes from.

Water: Sources, Use & Conservation, Grades 3-5 / St. Johns Riverkeeper
Lesson and activities about water sources, water usage and the important role of storm drains on water quality.

OUTDOOR SCHOOL YARD ACTIVITIES

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**RECOMMENDED BOOKS**

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>Grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>“A River Ran Wild”</td>
<td>Lynne Cherry</td>
<td>K-3</td>
</tr>
<tr>
<td>“Flush”</td>
<td>Carl Hiaasen</td>
<td>5-6</td>
</tr>
<tr>
<td>“Letting Swift River Go”</td>
<td>Jane Yolen and Barbara Cooney</td>
<td>K-3</td>
</tr>
<tr>
<td>“The Lorax”</td>
<td>Dr. Seuss</td>
<td>1-4</td>
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<tr>
<td>“Over and Under the Pond”</td>
<td>Kate Messner</td>
<td>1-2</td>
</tr>
<tr>
<td>“Redwoods”</td>
<td>Jason Chin</td>
<td>K-2</td>
</tr>
<tr>
<td>“The Tree Lady: The True Story of How One Tree-Loving Woman Changed a City Forever”</td>
<td>H. Joseph Hopkins</td>
<td>K-5</td>
</tr>
<tr>
<td>“Yo sé que el río me ama / I Know the River Loves Me”</td>
<td>Maya Christina Gonzalez</td>
<td>1-2</td>
</tr>
</tbody>
</table>

**OTHER ACTIVITIES**

**DRAW A PICTURE**
Instruct students to draw a picture of a river or creek, their favorite outdoor place, park or other outdoor area.

**REDUCE YOUR SCHOOL’S ENVIRONMENTAL FOOTPRINT**
Plan a school-wide event to turn off or reduce electricity for one hour, therefore reducing your school’s environmental footprint.

**RESEARCH AND WRITE A LETTER**
Research and write a letter to candidates running for office. Instruct students to identify candidates’ positions on environmental issues through research or by contacting the candidates or office holders. Welcome students to share their research with the class. Afterwards, instruct students to write a letter to candidates or office holders about a personal outdoor experience, why they think rivers and the environment need protection and ask the candidate or office holder to support environmental efforts and protect our water.

**FUNDRAISING IDEAS**
Supporting American Rivers or your favorite river group is a great way to get involved and make a difference. Here are some ideas to get you started.

**COLLECT CHANGE TO MAKE CHANGE FOR RIVERS**
Start a collection jar in your classroom. Ask students to raise funds by bringing in spare change from home. On or the Friday before Earth Day (April 22), ask students to wear green to school and donate $5. Establish an end goal and use a fundraiser status “thermometer” to help students visualize the amount collected so far, and the target amount raised.

**ORGANIZE A PAJAMA DAY**
Organize a special day where students donate $5 to wear their pajamas to school.

**PIE A TEACHER**
Recruit a few teachers and allow any student who purchases a ticket a chance to toss a whipped cream pie at a teacher.

**RECYCLE PLASTIC BOTTLES**
Check if your state offers a deposit-refund system for beverage containers. Start a collection for students to bring in plastic bottles. When the bottles have been collected, the leading teacher or parent takes them to a certified recycling facility or redemption center (depending on your state) where you can receive a state refund. For every plastic bottle, you may receive a refund of $0.05 to $0.10.

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**American Rivers National River Cleanup®**
American Rivers envisions a nation of clean, healthy rivers that sustain and connect us. Through National River Cleanup® we have engaged more than 1.3 million volunteers who have participated in thousands of cleanups across the country, covering more than 250,000 miles of waterways and removing more than 25 million pounds of litter and debris.

Visit Our Site: Americanrivers.org/cleanup
Email Us: NationalRiverCleanup@AmericanRivers.org

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**Pledge to Keep Your River Clean**

**Organize Your Own Cleanup**

**Volunteer at a Cleanup**