

## Elementary School Lesson Plan – Lesson 2

**Theme:** LA River Rover: Past, Present, and Future of the LA River

**Subject:** Physical, Life, and Social Sciences

<p><b>Objective</b></p>	<p>Students can explain what a watershed is and how it connects all parts of a city. Students understand how humans can affect the watershed and the ocean, which the River is connected to.</p>
<p><b>Standards</b></p>	<p><b>SS 6.1.2</b> Identify the locations of human communities ...and describe how humans adapted to a variety of environments.</p> <p><b>SS 6.2.1</b> Locate and describe the major river systems and discuss the physical settings that supported...early civilizations.</p> <p><b>SS 6.1.3</b> Discuss the climatic changes and human modifications of the physical environment...</p> <p><b>ES 6.5.e.</b> Students know the number and types of organisms an ecosystem can support depends on the resources available and on abiotic factors, such as quantities of light and water, a range of temperatures, and soil composition.</p> <p><b>LS 7.3.e.</b> Students know that extinction of a species occurs when the environment changes and the adaptive characteristics of a species are insufficient for its survival.</p> <p><b>SS 8.8.4</b> Examine the importance of the great rivers and the struggle over water rights.</p> <p><b>SS 8.12.1</b> Trace patterns of agricultural and industrial development as they relate to climate, use of natural resources, markets, and trade and locate such development on a map.</p> <p><b>NGSS STANDARDS</b></p> <p><b>MS-LS2-5.</b> Evaluate competing design solutions for maintaining biodiversity and ecosystem services.*</p>
<p><b>Vocabulary</b></p>	<p><b>Tributary</b> A branch of a river or lake that flows to a larger river or lake.</p> <p><b>Watershed</b> A watershed is an area of land where water from rivers, streams, and lakes gathers, and drains into a single place such as an ocean or lake. Hills and mountains separate watersheds.</p>

	<p><b>Storm Drain</b> A drain that carries rain water away from the street and into rivers and oceans</p> <p><b>Infiltration</b> The process of surface water being absorbed into the ground</p> <p><b>Groundwater</b> Water found underground in the cracks and spaces in soil, sand and rock.</p> <p><b>Endangered Species</b> A species at risk of becoming extinct.</p> <p><b>Threatened Species</b> A species at risk of becoming endangered.</p>
<b>Materials</b>	<ul style="list-style-type: none"> <li>• If virtual: projector</li> <li>• If in-person: field trip waivers for all students</li> </ul>
<b>Key Points</b>	<ul style="list-style-type: none"> <li>• Review of LA River history</li> <li>• Overview of threatened and endangered species</li> <li>• Pollution travels through the watershed to the ocean.</li> <li>• There is a path of trash between the streets, rivers, and oceans</li> <li>• A watershed is an area of land that drains its water to a river, stream, or lake. Hills and mountains separate watersheds.</li> <li>• Smaller tributaries feed into the larger river</li> <li>• There is little/no filtration within storm drains before polluted water gets to the LA River. There is some filtration in the soft-bottom sections of the LA River by soil, rocks, and plants.</li> <li>• The LA River ends in Long Beach. All of the trash and pollution are concentrated at the end of the LA River.</li> <li>• Humans have a major impact on the cleanliness of the river and oceans because of how the watershed moves pollution</li> <li>• Discussion about the future of the LA River</li> </ul>
<b>Possible Extensions</b>	<ul style="list-style-type: none"> <li>• Explore Watersheds interactive game: <a href="https://www.discoverwater.org/explore-watersheds/">https://www.discoverwater.org/explore-watersheds/</a></li> <li>• Visit our website <a href="http://folar.org">folar.org</a> for more information resources and links to interactive games to extend learning, like our Watershed Wonders lesson.</li> </ul>