

## Future Design Challenge - Extension

**Background Knowledge Required:** Informational writing: the writing process, hook, topic sentence, main idea, concrete detail

**\*\*\*Please note that the powerpoint has more detail. Detailed instructions are in the powerpoint for you and your students so there is no need to refer back to a lesson plan. We recommend reading through each lesson before teaching the lesson.\*\*\***

### Progression of Activities

Lesson	Lesson Synopsis	Materials	Time
1	<ul style="list-style-type: none"> <li>● Students learn about the past, present, and future of the LA River.</li> <li>● Introduce entire project</li> </ul>	<ul style="list-style-type: none"> <li>● Lesson 1 presentation (download from FoLAR's education webpage)</li> </ul>	1 hour
2	<ul style="list-style-type: none"> <li>● Students pick environmental problem they're interested in</li> <li>● Class practices annotating an article.</li> <li>● Teacher's discretion on level of annotation (could be varied levels of details depending on grade level).</li> <li>● Students read, annotate, do debriefing questions, and complete note taking worksheet</li> <li>● Remind students to save their research notes so they use them attach it to their presentations at the very end of the unit</li> </ul>	<ul style="list-style-type: none"> <li>● Articles</li> <li>● <a href="#">ELEMENTARY SCHOOL - Research Notes Worksheet</a></li> <li>● <a href="#">HIGH SCHOOL - Research Notes Worksheet</a></li> <li>● <a href="#">Individual checklist</a></li> <li>● Possible project topics:               <ul style="list-style-type: none"> <li>○ Floods</li> <li>○ Air Pollution</li> <li>○ Water Pollution</li> <li>○ Wildlife &amp; Habitat</li> <li>○ Plastics</li> <li>○ Eco Friendly</li> </ul> </li> </ul>	1-2 hours (or could be 2 days)

		<ul style="list-style-type: none"> <li>Buildings</li> <li>○ Green Space</li> <li>○ Water Supply</li> </ul>	
3	<ul style="list-style-type: none"> <li>● Class goes over how to make a model</li> <li>● Look at examples of models</li> <li>● Class goes over what a research poster entails</li> <li>● What needs to be included on the poster?</li> </ul>		
4	<ul style="list-style-type: none"> <li>● Students create action plans, goals, and supply lists in their groups</li> <li>● Students create blueprints</li> <li>● Conference with teacher</li> </ul>	<ul style="list-style-type: none"> <li>● <a href="#">Action Plan worksheet</a></li> <li>● Blueprint paper (butcher paper)</li> <li>● Group checklist</li> </ul>	1.5 hours
5	<ul style="list-style-type: none"> <li>● Build day: Students build their model based off their blueprints, action plan, and supply list</li> </ul>	<ul style="list-style-type: none"> <li>● Model materials</li> <li>● <a href="#">Completed action plan</a></li> <li>● Completed blueprint</li> <li>● Group Checklist</li> </ul>	1 day
6	<ul style="list-style-type: none"> <li>● Students write outlines for presentation boards based off checklist</li> <li>● Students type revised outlines into paragraph form</li> <li>● Students glue printed paragraphs onto presentation board and compile their process to be binder clipped to the back of the board</li> <li>● Conference with teacher + make edits if necessary</li> </ul>	<ul style="list-style-type: none"> <li>● Outline Packet (one per group)</li> <li>● Group Checklist</li> <li>● Presentation boards</li> <li>● Construction paper</li> <li>● Printed paragraphs</li> <li>● Binder clips</li> <li>● Group checklist</li> <li>● Laptops + printer access</li> </ul>	2 hours

7	<ul style="list-style-type: none"> <li>• Go over elements of a good speech</li> <li>• Watch public speaking video</li> <li>• Begin working on a presentation outline</li> <li>• Students self- evaluate their speech using rubric, make edits if necessary before conferencing</li> <li>• Conference with teacher (2nd revision optional)</li> </ul>	<ul style="list-style-type: none"> <li>• Completed research notes</li> <li>• All other notes are resources students have collected</li> <li>• Public speaking video</li> <li>• <a href="#">Individual checklist</a></li> </ul>	1.5 hours
8	<ul style="list-style-type: none"> <li>• Complete presentation outline - adding as many details as possible</li> <li>• Transfer outline to notecards (notecards are final draft, and what will be used to guide students during their speech)</li> <li>• Students practice their presentation on their own</li> </ul>	<ul style="list-style-type: none"> <li>• Notecards</li> <li>• Completed outlines</li> <li>• <a href="#">Individual checklist</a></li> </ul>	1 hour
9	<ul style="list-style-type: none"> <li>• Watch Public Speaking video again if necessary</li> <li>• Students practice speech with 4 different partners, reflect, &amp; get feedback</li> <li>• Students receive a class list where they will take brief notes on each student's speech (what their topic is) and check if they are interested in participating in the design challenge for that topic</li> <li>• Everyone makes their speeches</li> <li>• Teacher forms groups based on student interest &amp; behavior</li> </ul>	<ul style="list-style-type: none"> <li>• Completed project</li> <li>• Public speaking checklist</li> <li>• Public Speaking video</li> <li>• Completed note cards</li> <li>• Completed individual checklist</li> <li>• Class Speech Notes</li> <li>• Completed speeches</li> </ul>	2 hours

10	<ul style="list-style-type: none"> <li>• Presentation day (science fair style)</li> <li>• If there is an audience: All students stay glued to their project, adults fill out feedback cards &amp; ask questions</li> <li>• If there is not an audience: Half the group stays glued to the project while the other half asks questions and fills out feedback cards, then switch half way</li> </ul>	<ul style="list-style-type: none"> <li>• Feedback cards</li> <li>• Completed projects</li> </ul>	1 hour
	<p>Optional add on for high school students: FoLAR Advocacy toolkit</p> <ul style="list-style-type: none"> <li>• Learn about current LA River restoration efforts</li> <li>• Know the steps to take to join the River Movement</li> <li>• Know how to raise awareness in your own community</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Advocacy toolkit presentation linked here</a></li> </ul>	