

**Time:** 45 minutes

**Objective:**

Today students will use Problem Wheels to find the causes and effects of a problem in order to generate possible questions. They help teams identify the causes of a problem to develop strategies to fix the problem.

**Overview:**

Students will be able to frame a user-centered design statement or question to find the root cause.

**Materials & Setup:**

[Problem Wheels per team](#)

[Problem Framing Examples per team](#)

[Frame the Problem Guide per team](#)

**Activity:**

“If I had asked people what they wanted, they would have said, ‘Faster horses.’” - Henry Ford

Overview	Details
<p><b>Using Problem Wheels</b> Question: Did you focus on a problem or opportunity?</p> <p><b>Causes Wheel</b> Question: What causes a problem?</p> <p><b>Effects Wheel</b> Question: How do you discover effects of the problem?</p> <p><b>Opportunity Teams</b></p> <p><b>Frame the Question</b> Question: What are some underlying questions?</p> <p><b>Stuck?</b></p> <p><b>Closure: Vote the framing questions</b></p>	<ul style="list-style-type: none"><li>• Hand out the <a href="#">Problem Wheels</a> document for each team.</li><li>• The first top focuses on problems. The bottom half focuses on opportunities. Use either the top or bottom depending on your focus.</li><li>• Students place a different cause in each sector of the circle. Think of all causes including money, government, society or culture.</li><li>• Next teams place different effects in each sector of the other circle. Write the layers of people or things affected by the problem and their perspectives.</li><li>• If students focus on opportunity, they follow the same steps, focusing on both short-term and long-term benefits as well as logistical, physical, and environmental challenges.</li><li>• Have students discuss each cause and effect to develop several framing questions based on it. Remind them: Select a challenge that is: important to the user, practical to solve with the time and resources you have.</li><li>• If teams are stuck, use Frame the Problem Guide &amp; Problem Framing Examples.</li><li>• Students as a group, choose their top 6 to 10 framings through a multi-stage voting process.</li><li>• Students review the Problem Wheels and list of problem framings with the team.</li></ul>