

Design Challenge 4: Ideate a Solution

Brainstorming is an important part of the innovative process. In this design challenge you will brainstorm many solutions to a problem and tell the story of how that problem could be solved.

What You'll Need:

- What If Problem Solving Graphic Organizer
- Brainstorming Graphic Organizer
- Synthesizing Ideas Graphic Organizer

Quick Steps Guide

1. **Understand the Challenge:** Read or listen carefully to the challenge instructions. Make sure you know that you're focusing on brainstorming ideas to solve a previously identified problem.
2. **Review the Problem:** Refresh your memory about the problem you identified in the previous challenge. Understand its details and why it's important to solve.
3. **Prepare Your Brainstorming Space:** Find a quiet and comfortable place to brainstorm. Have some paper or a digital device ready to write down your ideas.
4. **Set a Time Limit:** Decide how much time you'll spend brainstorming. It could be 10, 15, or 20 minutes – whatever works for you.
5. **Generate Ideas:** Start brainstorming ideas to solve the problem. Write down as many ideas as you can within the time limit. Don't worry about how good they are at this point.
6. **Think Creatively:** Let your imagination run wild. Come up with unusual, wild, or even funny ideas. Sometimes the most creative solutions come from thinking outside the box.
7. **No Criticism:** Remember, during brainstorming, there's no such thing as a bad idea. Don't criticize or judge any of your ideas – just write them down.
8. **Review Your List:** After your brainstorming session, look at the list of ideas you've come up with. It's okay if some seem silly – they might lead to something great!

9. **Identify Promising Ideas:** Highlight or circle the ideas that stand out to you. These could be ones you think are interesting, feasible, or could have a big impact.
10. **Reflect:** Think about the brainstorming process. Did you enjoy coming up with different ideas? How did you feel when you were thinking creatively about solutions?
11. **Record:** Create a video reflection explaining different ideas and highlight the idea you think is most practical. Talk about the process, how you felt as you were thinking about different ideas. Highlight some of your off the wall ideas or something unusual.

Extend

Have the students record a video reflection explaining different ideas and highlight the idea you think is most practical. Talk about the process, how you felt as you were thinking about different ideas. Highlight some of your off the wall ideas or something unusual.

Evaluate

As the students share their potential solutions, make sure it aligns with the problem statement they created. If it doesn't align, it still may still be a good solution. It may just be an opportunity for students to revisit or rewrite their problem statement. Remember this is an iterative process and one will often find the opportunity to revisit old ideas.