

The Tech for Global Good Circular Economy Project Guide

Name(s):

Date:

Design Challenge Scenario

You and your team run a sustainable design firm that develops innovative technology processes for a circular economy. A company has hired you to help them develop a solution that makes one or more stages of a product life cycle more sustainable. You can design the product itself, the way it is manufactured, how materials are sourced, or even the entire system. Your team will use your skills as communicators, researchers, collaborators, and creative problem-solvers to develop an innovative product that benefits people and the planet.



Throughout this challenge you will use the Innovation Design Process to:



1. Understand the design problem (pg 2-3):

Develop a solution that fits within a circular economy. Your design should make one or more stages of a product life cycle more sustainable.

- Develop questions and search for answers.



2. Brainstorm: (pg 4)

- Be creative! Think of as many wild ideas as possible.



3. Create a solution: (pg 5)

- Each member shares their sticky notes and posts them on the board.
- Pick someone to group similar ideas together.
- Label the categories.
- Work together to add more ideas.
- Each team member ranks their favorite ideas from one to five.
- As a team, choose a solution to focus on.



4. Refine your solution: (pg 6)

- Listen and help: get feedback from peers on your solution.
- Edit your solution and improve how it addresses the problems your team is focusing on.



5. Design a presentation: (pg 7)

- Share your solution with others and get feedback.

Please show:

- The problem your team has identified and addressed.
- Your team's solution for this problem.
- How it will benefit the company, the consumer, and the planet.



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Understand the design problem:

Linear Economy



Transform and Disrupt

What are some more sustainable approaches to this process?

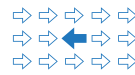
Write down as many ideas as you can on sticky notes!



Round 1 - Transform

Pick a **material** from the life cycle and think of a way to use all or part of it for a different purpose.

For example: Paper packaging is recycled to create paper plates.



Round 2 - Disrupt

Pick a **stage** of the life cycle and think about what its purpose is and come up with a completely different way to achieve the same purpose (ideally in a more sustainable way).

For example: Print advertising becomes a viral social media campaign.

Select three of your favorite ideas to share.

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Notes and Questions

The Tech for Global Good is an initiative that prepares the next generation of innovators to tackle the toughest challenges facing our planet.

As you watch videos of The Tech for Global Good laureates, consider:

- *How does this solution reduce impact on the environment?*
- *How does this solution fit into a circular economy?*
- *What else stands out about this solution?*

Laureate Name	Notes



Brainstorm Mash-up

Spark innovative ideas by combining random ideas.
See where your crazy mash-up will take you!

Step 1: Choose a product.

We started this list with some random examples of our own. Add some things you like or whatever pops into your mind!

shoe lamp chair headphones
pencil shirt book food

Step 2: Choose a stage of the Life Cycle.

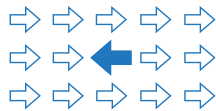


Step 3: Decide to transform or disrupt.



Transform

Use all or part of something for a different purpose.



Disrupt

Come up with a completely different way to achieve the same purpose sustainably.

Step 4: Mash-Up!

Try to think of a solution that combines all of the steps above. Write down several surprising mash-ups and see if they inspire you.



Create a Solution

Choose an idea to focus on for your solution.

Think about:

- What ideas have inspired you so far?
- What do you already know about the life cycle of this product? What ideas have already been tried?
- What challenges will you need to confront in order to help solve this problem?
- What about infrastructure or other challenges?



Listen and Help

	Team Presenting	Audience
3 min	Present their design solution.	Silently listen. Take notes.
3 min	Respond to clarifying questions.	Ask clarifying questions.
2 min	Silently listen. Take notes.	Provide feedback.

Listen and Help Notes

Feedback <i>from</i> the other team	Notes <i>for</i> the other team



Design a Presentation

Your team will create a presentation to share ideas with others, including:

- The problem your team has identified and addressed.
- Your team's solution for this problem.
- How it will benefit the company, the consumer, and the planet.