

Imagine a Waste-Free Economy

Eco360 Jr.
Infographic Handout
Grade Level: 3-8



How can you create something useful from plastic you have around your house? Use your inner engineering skills to create a product from recycled plastics by using the design process given below.

Step 1 - Define the problem:

- What is the problem at hand? There is a lot of waste generated from discarding plastics, and because plastics live in the landfill for many years, it is not easy to get rid of them.
- Who is affected by the problem? Plastics end up in our oceans, threatening life underwater.
- What has been done to address it? Many companies are making products from recycled plastics.
- How can I help? By creating your own products from discarded plastics.

Step 2 - Brainstorm solutions:

- Come up with ideas for solutions
- Share ideas with friends and/or family
- Narrow ideas and pick the best ones

Step 3 - Design:

- Using your idea, design your solution for implementation
- Focus on how the product designed will address the problem

Step 4 - Create, Test & Evaluate, Redesign & Improve

Step 5 - Share with peers!

Product Design Requirements

The final product created should have the following qualifying characteristics:

1. Useful and serves a purpose
2. Created from recycled plastics
3. Can be re-created easily
4. All materials used can be recycled or composted
5. Can be reused again
6. Can be deconstructed to make something new

Suggested Materials

1. Plastics at home
2. Paper (use discarded paper or newspaper)
3. Scissors
4. Stapler
5. Glue

Learners may use other materials if required, provided they are recyclable, biodegradable or compostable.

Presentation

After you have designed your product, it's time to show it off! This can be done in several different ways (poster, video, PowerPoint, Prezi, etc.) but should include the following elements:

1. Name your product!
2. Purpose of the product (e.g., basket to put things in)
3. Demonstrate how the product design incorporates the principles of a circular economy
4. Make → Remake and Use → Reuse
5. Quantity of plastic offset (e.g., 1 L milk container)
6. All the materials used and quantity of each
7. Time required to create the product

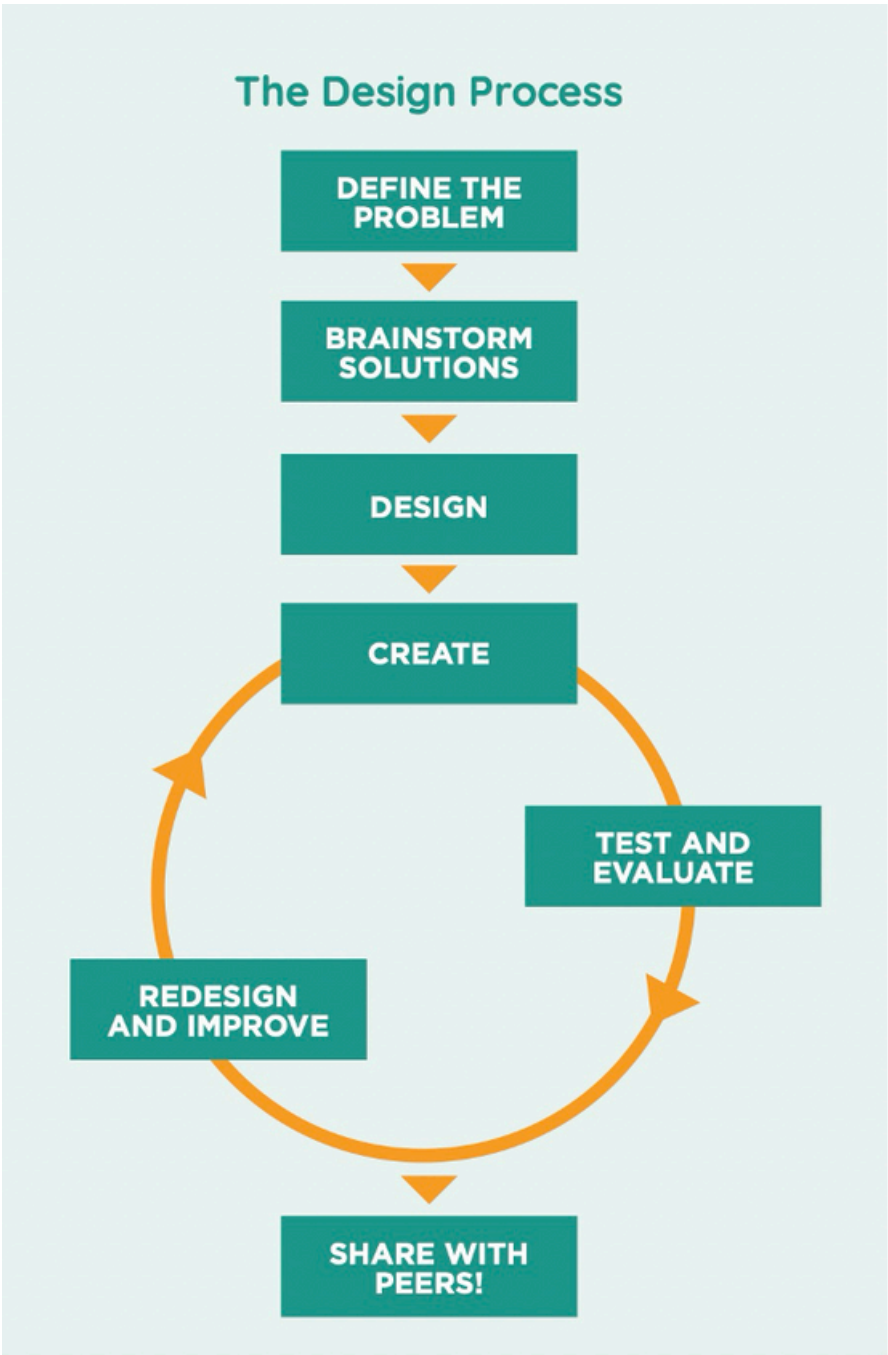


Figure 1: The Design Process (GreenLearning)