



Green² Plan – Junior Product Designer Badge

Purpose: Design a product that solves a problem while keeping the process eco-friendly, waste-free, and sustainable.

Overall Green² Strategies

- Materials: Use only recycled, repurposed, or borrowed items for prototypes.
 - Research: Go digital for brainstorming, sketches, and documentation—no printing.
 - Production: Make a prototype that's reusable, repairable, or compostable.
 - Impact: Consider how your product will affect the environment at every stage.
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Step 1 – Come Up With an Idea

Goal: Identify a problem you can solve with your product.

- Brainstorm as a troop using a shared digital whiteboard or scrap paper.
 - Focus on eco-problems (plastic waste, water use, food packaging).
 - Choose ideas that encourage reusing or reducing waste.
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Step 2 – Sketch It Out

Goal: Draw your design and decide how it will work.

- Sketch on scrap paper, cardboard backs, or use a drawing app.
 - Reuse existing designs as inspiration rather than starting from scratch.
 - Share sketches digitally with the troop for feedback.
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Step 3 – Get Feedback

Goal: Ask others what they think and improve your idea.

- Present your idea via a digital slideshow or video call.
 - Use household objects as temporary stand-ins for parts to test functionality.
 - Avoid printing surveys—use online forms to collect responses.
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Step 4 – Build a Prototype

Goal: Create a sample version of your product.

- Use only items you already own or can borrow.
 - Repurpose old toys, clothing, packaging, or furniture for parts.
 - Keep your prototype repairable and adjustable so it's not single-use.
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Step 5 – Share Your Invention

Goal: Show others your product and explain how it helps.

- Host a “Green Invention Fair” where all products are displayed without printed posters—use a projector or slideshow.
- Share your product on troop-approved social media, highlighting the eco-friendly design.
- Pass your prototype to someone who can use it rather than discarding it.

At-Home & Family Connection

- Work with your family to improve your prototype and make it more sustainable.
- See if your product could replace something in your home that creates waste.
- Teach a family member how to make your product using only reused materials.

Waste-Free Wrap-Up

- Reflect as a troop: What design choices made your product eco-friendly?
- Compile digital instructions for all troop products into one “Eco Design Guide.”
- Pass leftover materials to another troop for their badge work.