Upcycle Product Design [GLOBAL ISSUES]

intel FUTURE SKILLS

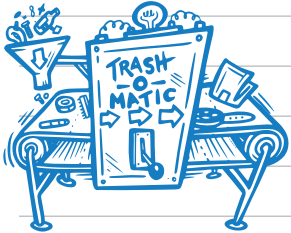| PROJECT STEPS	WAYS OF PROBLEM SOLVING AND SHARING YOUR PROJECT		
Dream It!	**SOLOIST** We/I had no need for brainstorming ideas, we only listened to one person who had a pretty good idea How many ideas did you explore?	**COLLABORATOR** We/I took turns brainstorming and discussed various solutions according to our constraints and time and different perspectives How did you choose an idea to explore deeper?	**INNOVATOR** We/I studied other ideas for inspiration, brainstormed and discussed multiple options, then came up with a unique solution How did you choose an idea to explore deeper?
Draw It!	**EXPLORING** My model or drawing can be explained by the makers	**EVOLVING** My model drawing can be understood by anyone because it is clearly labeled, to scale	**EXPANDING** I used 3D sculpting tools, like TinkerCAD, Fusion 360
Build It!	**EXPLORING** This is all new for me, I am trying new tools or materials and I am not sure what will happen	**EVOLVING** I am experienced with the tools and materials, I am able to make several iterations of my idea with ease	**EXPANDING** I am experienced with the tools and materials, I am able to make several meaningful iterations of my idea based on testing and feedback
Share It!	**PEER PUSH** Share your global solution with someone who did not make it, ask them for their feedback and suggestions on how to improve the design	**COMMUNITY CONNECTION** Share your project in a school wide or online family share showcase where you can explain the process of how you made your design	**GLOBAL GURU** Share your global solution with others so they can learn from you. Consider using TikTok, Instagram, Tumblr or Twitter if you are 13 or older
Expand It!	**SOLOIST** I took my design and tried various changes to its design based on my testing	**COLLABORATOR** After documenting, testing, and listening to the feedback of others, I changed my design and it is better with the help of others	**INNOVATOR** I created something that we have never seen or mashed together different crazy Ideas to make something new.
Makers Choice Is there a criteria that you feel your project or efforts should be evaluated on that is not listed yet? If so, write it here:			

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RATE THIS PROBLEM:
How hard was this project over all? (Check appropriate box)

1	2	3	4	5	6	7	8
EASY							HARD
☐	☐	☐	☐	☐	☐	☐	☐

REFLECT ON YOUR PROBLEM:
What made it hard (lack of ideas, knowledge, time, materials, help, tools, etc.)?

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All designers and engineers get stuck when making something for the first time. When I got stuck or needed inspiration what did I do?

☐ Did I use a tutorial? (listen and watch to learn)

☐ Did I discuss my ideas with others in person or online? (discuss to learn)

☐ Did I start to build even before I totally knew what I was doing? (tinker to learn)

1. Upcycling is the process of taking a used or discarded object or material and making it into something of greater value than the starting material. Why do you think upcycled products gaining in popularity in stores and Etsy?

2. Upcycling is another form of resourcefulness. Many cultures are famous for the creative reuse of materials and garbage. Research one of these cultures and share their solutions with a friend.

3. Upcycling is related to green solutions, such as adopting green energies. How is the stream of product design related to the consumption of energy and why do we need to be making more sustainable choices in both areas?