Mini Re-Use Project

Goal: To design, build, and promote a product made from reused materials that are commonly thrown away, reducing the negative impact on the ecosystem.

Product:
The product should be a working prototype that's as close as possible to something you might buy at a store. (*One should look at it and think, "Hey, if you just cleaned it up a bit, you could sell this."*)

Broom & Dust Pan
Materials: Cardboard, Plastic, and/or Fabric.
Function: Sweep and pick up dirt/waste.
Engineering Focus: Connecting the handle to the brush part.
1. Four parallel layers of even bristles able to make contact with wet surfaces.
2. Handle must be long enough to sweep while standing upright.

Bag with Handles
Materials: Plastic and/or Fabric.
Engineering Focus: Sewn, crocheted, and/or knitted & able to hold a heavy textbook.
1. All edges line up & handles sewn together.*
2. Plastic sheets must be made of two or more layers.‡
*Knitted/crocheted parts must have uniform stitches.
‡Knitted/crocheted bags hold smaller items (ie eraser). Fabric bags must have hidden unfinished edges.

Clothing Item (Shirt, Shorts, Dress, Skirt, Full Hat with rim, Pants, or Vest)
Materials: Plastic Bags (made into yarn or sheets)
Engineering Focus: Sewn, crocheted, and/or knitted and must be wearable (easy to put on, stays on, and easy to take off).
1. Must be symmetrical.
2. Plastic sheets must be made of two or more layers.*
*Knitted/crocheted parts must have uniform stitches.

Pair of Shoes/Sandals
Materials: Plastic Bags, Fabric, and/or Rubber.
Engineering Focus: Durable, wearable, and walkable.
1. Soles must be able to contact water without issue.
2. Left and right shoes/sandals must be symmetrical.

Engineering:
This is an engineering project. No tape or staples. No one piece designs - like a shirt where you closed up the ends and added handles to make a bag. No keeping the original function of reused items. So if it was a handle before, it can't be a handle again. Unless, you broke it down and used the material to make a new kind of handle. If you're not sure, ask.

Support:
Tools, sewing machines, irons, etc. are available to you at lunch. Also before/after school and other times, if scheduled in advance.

Photo Documentation:
Shows students actively engaged in the making/building of the assigned product at the start and middle of the process. This is a requirement, failure to comply will result in large penalties. If working in **groups**, members must additionally be **shown together** and working on the project. Students who complete the majority of their project in class do not need to submit photo documentation. (via Google Classroom)

Groups:
Students may work together in pairs or trios, if they were assigned the same project item(s). Students must sign up to work in groups or they will receive large penalties. If a group misses their deadline, all individuals must turn in separate projects. No exceptions.

Commercial (Video):
Make a 15 to 30 second commercial featuring your product. The commercial should have different angles, steady camera work, and quality video & audio. (via Google Classroom)

Environmental Presentation:
Give a presentation (~1 minute) that addresses how reusing material will reduce the negative impact to biodiversity and ecosystem services. You will have to do research before starting your presentation. Research material and guiding questions will be provided.

Trios Schedule:
Bring finished product(s) to class, turn in commercial, turn in photo documentation on or before Wednesday, March 13th.

Pairs Schedule:
Bring finished product(s) to class, turn in commercial, turn in photo documentation on or before Wednesday, March 20th.

Solo Schedule:
Photo Documentation - Collected Materials/Start (Pictures) - Wednesday, 3/13
Photo Documentation - Midpoint (Pictures) - Wednesday, 3/20

Bring finished product(s) to class & turn in commercial on or before Wednesday, March 27th.