

JNM PLASTIC PROGRAM

A More Printable Future



Learning Objectives

To introduce Milwaukee to the concepts of upcycling plastic materials into 3D printable objects to protect the environment.

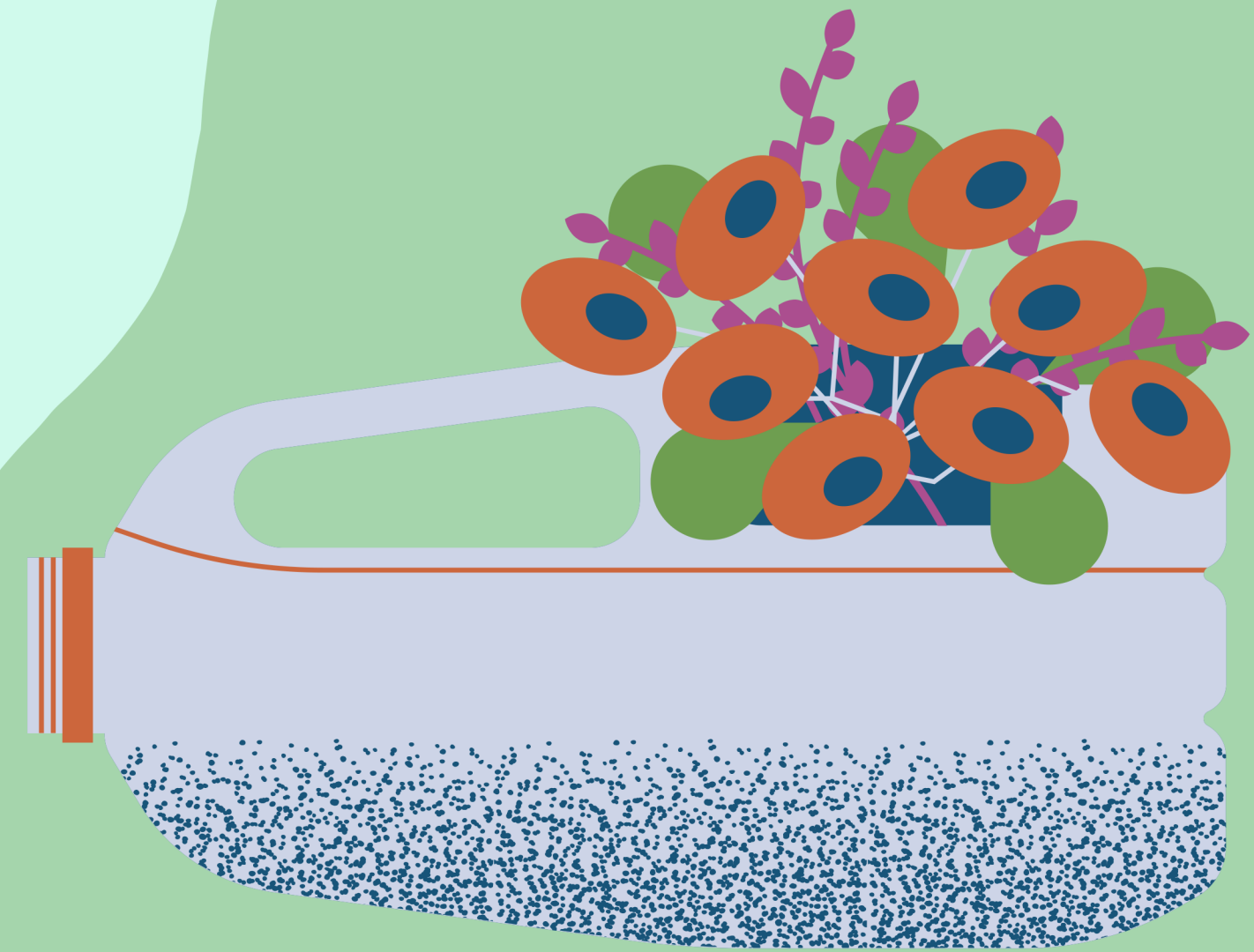
To encourage makers to make eco-friendly choices in their daily lives.



What Is UpCycling?

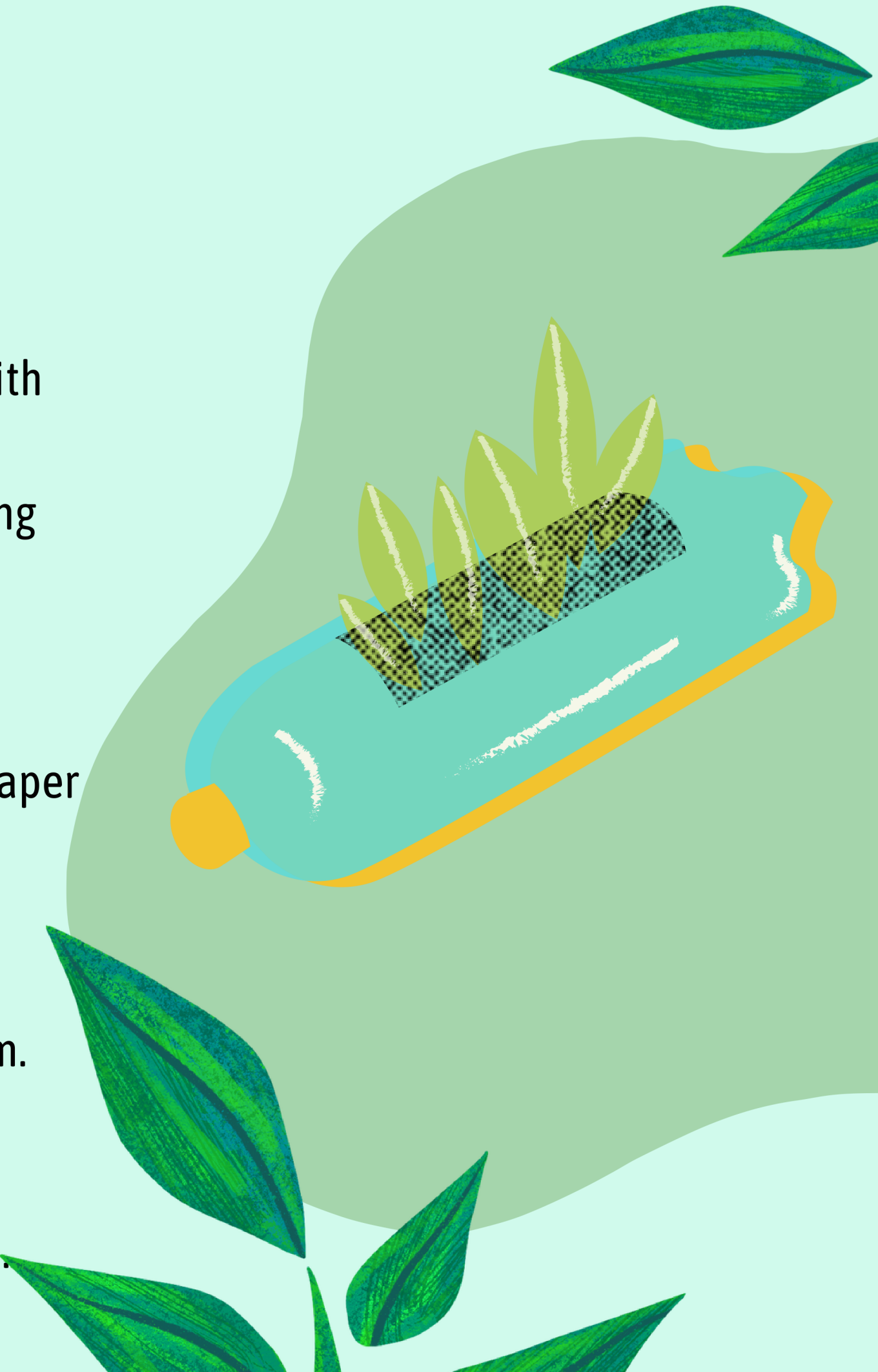
"Upcycling" is about being resourceful with what we have. It is a key and impactful practice in our efforts to benefit the environment. Through upcycling, we creatively repurpose items to minimize waste generation. This involves utilizing our possessions mindfully and avoiding unnecessary consumption.

For instance, repurposing old materials for new uses and refraining from discarding edible food. Moreover, opting for products with minimal packaging contributes to reducing waste production. The objective is to utilize our belongings efficiently and prevent unnecessary disposal.



Ways to upcycle your waste

1. Upcycle plastic waste by transforming it into useful items using 3D printing with recycled filament.
2. Bring your own containers to bulk stores for packaging-free shopping, reducing waste.
3. Compost food scraps to minimize organic waste in landfills.
4. Look for products with minimal packaging that can be recycled or upcycled.
5. Reuse cloth towels and napkins as an eco-friendly alternative to disposable paper products.
6. Donate or sell unwanted items to upcycle company and give them a new life instead of discarding them.
7. Repair and refurbish items to extend their lifespan rather than replacing them.
8. Invest in durable, high-quality products that are designed for longevity.
9. Switch to rechargeable batteries to reduce single-use battery waste.
10. Opt for digital media over physical copies to save resources and reduce waste.



Plastics able to be upcycled

1. PET or PETE (Polyethylene Terephthalate)- Soda and Water Bottles
2. ~~HDPE (High Density Polyethylene)~~- Milk jugs, juice bottles; **Leaches nonylphenol when exposed in the sun**
3. ~~PVC (Polyvinyl Chloride)~~- Window cleaner and detergent bottles, shampoo bottles; **Contains Dioxins that poison air and landfills**
4. LDPE (Low Density Polyethylene)- Squeezable bottles
5. PP (Polypropylene)- Syrup, Ketchup, medicine bottles, straws
6. ~~PS (Polystyrene)~~ - Disposable plates and cups, meat trays, egg cartons, carry-out containers, aspirin bottles, compact disc cases; **Can leach styrene**
7. Other- 3D Filament, 3 and 5 gallon water bottles, 'bullet-proof' materials, sunglasses, DVDs



What is Recycled Filament?

Reusing and recycling used 3D filament is all about finding creative ways to give materials a second life. Instead of discarding them, we can explore innovative methods to repurpose them. Take, for instance, a plastic bottle that previously contained soda (#1PET). Instead of simply disposing of it, we can wash it thoroughly, convert it into strips, and use it to create recycled filament for 3D printing. By reusing materials in this way, we reduce the need to purchase new resources, thereby conserving the Earth's precious materials and energy. It's a fantastic way to provide old items with fresh purposes!



Ways to recycle your Plastic

1. Separate your waste into recyclable and non-recyclable materials.
2. Research your local recycling programs to know what materials they accept.
3. Opt for products and packaging made from recycled materials.
4. Use reusable bags, containers, and bottles to reduce waste.
5. Compost organic waste, such as food scraps and yard trimmings, to create nutrient-rich soil.
6. Donate or sell items that are still in good condition instead of throwing them away.
7. Repurpose items, such as glass jars or cardboard boxes, for storage or decoration.
8. Use old newspapers or magazines for wrapping paper or craft projects.
9. Participate in community clean-up events to collect and recycle litter.
10. Educate others on the importance of recycling and waste reduction.



How is Plastic Recycled ?

“Recycling” plastic involves collecting plastic items like containers, bottles, and bags. These are then sorted, cleaned, and shredded into small pieces. The shredded plastic is melted down and formed into pellets. These pellets can be used to create new plastic objects through processes such as injection molding, or 3D printing. This helps reduce waste, conserve resources, and give old plastic a new life as useful products.



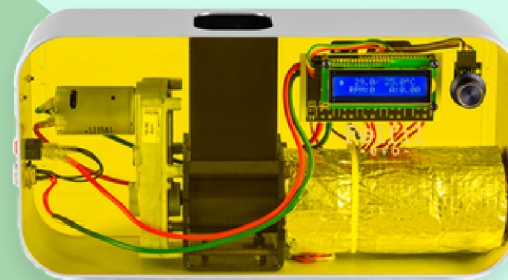
Felfil System

Shredder

Felfil Shredder+ is a plastic processor that allows to shred your old, failed 3D prints or plastic wastes into small pieces.



Extruder



Felfil Evo is a safe and easy to use plastic filament extruder, able to produce custom and recycled filament for 3D printers starting from pellet or wrong prints.



Spooler



Felfil Spooler+ helps you extrude fast and easily, spooling your filament.

JNM PLASTIC

Is here to provide and develop the resources needed to further classify the #7 Plastics by offering a Filament Recycling Program. Each 1kg of donated filament will afford a discount on the recycled filament spools JNM Plastic plans to produce. With 250lb's of scrap filament the first phase of equipment will be self sufficient.

Currently Accepting Used Filament in:

- Bay View, Milwaukee



So, remember, "Upcycle" by giving things second lives, and "Recycle" by turning old stuff into new stuff. That's how we can help our Earth stay clean and happy for everyone!

