The Circular Economy

 $make \rightarrow use \rightarrow reuse \rightarrow repair \rightarrow recycle$

Imagine a big circle: materials go around and around — they never become useless trash!



You help Earth when you give objects many lives!

Our Bioplastic

Scientists are finding new ways to make materials from natural waste — not from oil.

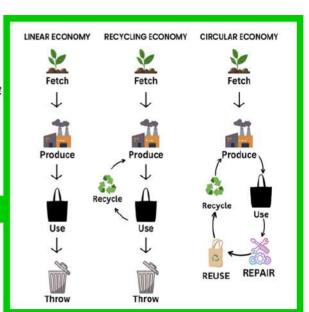


Why is bioplastic better?

- 🗸 comes from nature
- safer for the planet
- made from waste (nothing is thrown away!)

We use three special ingredients to create a biodegradable plastic!

INCREDIENT	WHERE IT COMES FROM	SUPER POWER	SUBSTITUTE
Agar-agar	Red seaweed	Makes structure (shape)	Starch, Gelatin, Pectin
Glycerin	Plants & animal fats	Makes flexibility (bendy)	Honey, Sorbitol, Sugar syrup
Eggshell powder	Food waste	Makes strength (hardness)	Shell sand, Coffee, Paper



Turn trash into treasure!

Bioplastic with Eggshells

Ingredients / What you need

Water: 100 ml
Agar powder: 15 g
Glycerin: 10 ml

Eggshell powder: 100 g

Steps

1. Prepare the eggshells

- · Clean them well and let them dry
- Crush them into a fine powder (break them small)

2. Mix the ingredients

- Put water and the agar powder in a pot
- Add glycerin

3. Heat the mixture gently

- · Warm it on a low heat
- Stir until it becomes thicker (gel-like)

4. Add the eggshell powder

- Slowly mix in the eggshell powder
- · Stir carefully so it becomes a gooey material you can pour

5. Pour into a mold

- · Put the warm mix into a mold
- . Try not to make bubbles as you pour

6. Let it dry

- · Leave the mold in a warm, dry place
- It may take many hours or days to dry completely

Important note:

This activity involves heat and kitchen tools.

Please do it only with an adult supervising you at all times.

How to Make a Snow Globe

What you need

- a jar (for example a jam jar)
- water
- glitter
- small decorations
- · a little glycerin
- · silicone (to close the lid)

Instructions

- 1. First, clean the jar.
- 2. Then, glue the small decorations to the lid.
- 3. After that, add water into the jar.
- 4. Next, put some glitter in the water.
- 5. Then, add a little glycerin (1 or 2 drops)
- 6. Finally, close the jar and seal the lid with silicone.

Important note:

Please do it only with an adult supervising you at all times.