

O-I EARTH DAY LESSON PLAN IDEAS

Learning More About Glass

How glass becomes a new bottle or jar – Glass bottles and jars are 100% recyclable and can go from recycling bin to store shelf in as little as 30 days.

Steps to Create New Glass Containers (show students SLIDE 3)

Leverage the interactive site (<https://glass-catalog.com/na-en/glass-making-process>)

1. The ingredients to make glass are sand, soda ash, limestone and cullet, which is recycled glass
2. The ingredients get mixed together and heated in a large furnace.
3. The molten glass is stirred to remove bubbles and then it flows to a feeder where it is cut into gobs (small pieces of molten glass).
4. The gobs are then fed into forming machines where they are pressed and blown into glass containers.
5. Once the gobs are blown into glass containers, they are reheated in a special oven call a lehr.
6. Before shipping, the glass containers go through a rigorous inspection process to ensure the highest quality.

Steps to Recycle Glass Containers (show students SLIDE 6)

1. Clean out your glass containers and place them in your recycling bin or take them to your local recycling center.
2. It is best to separate glass by the different colors – green, amber (brown) and flint (clear). Some community recycling programs have only one bin for glass. That’s OK. Still place your glass bottles and jars in the bin for recycling.
3. The glass bottles and jars are taken to a glass processing center where they are cleaned, sorted by color and crushed into small pieces.
4. Companies like O-I buy the clean, small pieces of glass, called cullet, and use it to make new glass containers.
5. Using cullet is important to glass companies because it reduces energy. Cullet melts at a lower temperature than the other raw materials – this is because it is already glass.
6. Glass is unique because it can be reused over and over again to make new glass containers.



Fun Activities Using Glass

Making Snow Globes from Recycled Glass Jars

- Reuse old cleaned jars to create snow globes for any holiday and use water-resistant toys for the inside of the globes.
- Glue the toy figure to the inside of the lid and allow to dry.
- Fill the jar with water and add glitter.
- Line the mouth of the jar with glue and then place the lid back on the jar, submerging the toy figure in the water and glitter.
- Turn upside down and enjoy!

Glass Worksheets: Games and Puzzles

1. Gives students the word search, crossword puzzle, coloring pages and maze to work on after the presentation.
 - Lead them through the presentation, then draw common themes from the presentation to help students find the answers to the puzzles (attached).
 - The word search and maze provided are suitable for students of all ages. The crossword puzzle is geared toward older audiences grades 6-12 (attached).
2. Offer some form of prize – such as a free drink bottled in glass – for the first person in the class who can find a glass bottle at home with the “O-I” punt mark on it. This will help reinforce the action of choosing glass and also give the kids incentive to apply what they learned about glass in school, at home.

