

## Rainbow Readers

### Title: How It's Made: From Sand to Glass

#### Word Study

Fill in the blanks using the words.

fluid	melted	beads	lightning	bubbles
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1. I forgot to put the ice cream back in the freezer and it melted.
2. Lightning quickly heats the air, which is what causes thunder.
3. Ice becomes a fluid when it gets warmer than 0 degrees Celsius.
4. She made a pretty necklace out of colored beads.
5. You can tell water is boiling when you see bubbles in it.

## Reading Comprehension

### A. Circle T for true or F for false.

1. Glass was used as money in the past. T / F
2. The art of glass blowing is no longer in use today. T / F
3. Old glass is taken to recycling plants in large trucks. T / F
4. Glass of different colors can be mixed for recycling. T / F
5. Old glass and new glass are mixed to make windows. T / F

### B. Circle the correct word(s).

1. The materials used to make glass are (difficult / easy) to find.
2. If you add limestone and soda ash, you need (more / less) heat.
3. Re-heating and cooling glass several times makes it (clearer / stronger).
4. Long (glass / metal) tubes are needed for glass blowing.
5. Machines at recycling plants (crush / melt) glass into cullet.

### C. Choose the best answer.

1. What were the first things made out of glass?

- a. Beads
- b. Windows
- c. Jars
- d. Artworks

2. Which is NOT an ingredient in glass?

- a. Sand
- b. Soda ash
- c. Limestone
- d. Water

3. Which step in making glass comes first?

- a. The ingredients are mixed.
- b. The materials are melted.
- c. The materials are put into silos.
- d. The materials cool and become clear.

4. What was discovered about two thousand years ago?

- a. How to make glass stronger
- b. How to change the color of glass
- c. How to melt sand faster
- d. How to blow glass

5. In recycling, glass is turned into cullet because cullet \_\_\_\_\_.

- a. is stronger
- b. is safer
- c. melts faster
- d. looks better

## Summary

Fill in the blanks with the words.

environment	ingredients	molds	dug	silos
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People learned to use glass after noticing that lightning makes glass out of sand. That was thousands of years ago. But today, many people don't know how glass is made. Besides sand, limestone and soda ash are two important ingredients. Luckily, these are cheap resources. They are dug out of the ground and taken to glass factories. The materials are stored in different silos and then mixed together. The mixture is heated until it melts; then it becomes glass as it cools. Artists have learned how to add color to glass and blow it into different shapes. Old glass can be used to make new things, which is good for the environment. To be recycled, glass bottles or jars are cleaned and separated by color. Then machines crush them and clean them again before melting them. Glass factories make many things out of glass. They use trays to make windows, and molds to make bottles. Glass is important to people all over the world.