

Tiny Robots Made of Water

Reading Worksheet — Level C | tahricteaches.com

Scientists in South Korea have made amazing tiny robots out of water. These robots are about the size of a grain of rice. They can squeeze through tiny **gaps**, roll across tables, and float on water. The scientists say the robots are a little like the T-1000 from the movie Terminator 2 because they can change shape.

To make the robots, scientists first **freeze** water into tiny ice cubes. Next, they cover the ice with a special **powder** that keeps water out. When the ice melts, the powder stays together and forms a strong shell around the water. This shell is like a suit of **armor** for the robot.

Older water robots were too weak and could **break** easily. These new robots are much stronger. Scientists use **sound** waves to move them left, right, forward, or backward. In one test, a robot flattened its body, slipped between metal bars, and then became round again on the other side.

The robots can also work as a **team**. In one test, one robot picked up something dangerous, like a poison, and another robot carried the cure. The two robots joined together and mixed the poison and cure inside their shells. This made the poison safe.

Scientists think these robots might one day carry medicine inside the human body. They could help sick people get better by taking medicine to the right place. These tiny robots are still new, but they may become a very useful invention in the future.

A. Vocabulary

- | | |
|--------------------|---|
| 1. robots ____ | a. something you can hear, like music or a bell |
| 2. gaps ____ | b. a strong cover that keeps something safe |
| 3. scientists ____ | c. a hard, shiny material like iron or gold |
| 4. metal ____ | d. a group that works together |
| 5. freeze ____ | e. small spaces or openings |
| 6. powder ____ | f. people who study and learn about the world |
| 7. armor ____ | g. to make something very cold until it becomes ice |
| 8. break ____ | h. very tiny pieces of something, like dust |
| 9. sound ____ | i. to crack or fall apart into pieces |
| 10. team ____ | j. machines that can do jobs on their own |

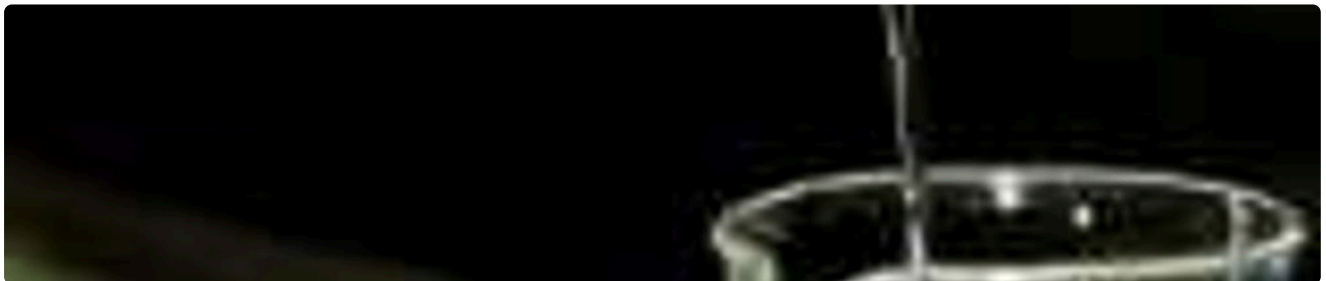
B. True or False

- ___ 1. The robots are as big as a basketball.
- ___ 2. The robots are made of water.
- ___ 3. Scientists use sound waves to move the robots.
- ___ 4. The robots were made in the United States.
- ___ 5. Two robots can join together.
- ___ 6. The robots look like tiny squishy balls.
- ___ 7. Old water robots were very strong.
- ___ 8. The robots can float on water.
- ___ 9. The robots are made only of metal like in the movie.
- ___ 10. Scientists think these robots may help carry medicine one day.

C. Fill in the Blanks

Word Bank: freeze, armor, sound, team, gaps, powder, break, robots

- 1. The robots can squeeze through tiny _____ between bars.
- 2. Scientists use _____ waves to steer the robots.
- 3. You need to _____ water into ice cubes first.
- 4. The special shell is like a suit of _____ for the robot.
- 5. Two robots worked as a _____ to mix chemicals together.



D. Comprehension Questions

- 1. How big are the liquid robots?
- 2. What are the robots made of?
- 3. How do scientists move the robots around?

E. Discussion Questions

- 1. Would you like a tiny robot to help you? What would you want it to do?
- 2. Do you think robots made of water are cool or scary? Why?

Answer Key

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A. Vocabulary: 1-j, 2-e, 3-f, 4-c, 5-g, 6-h, 7-b, 8-i, 9-a, 10-d

B. True/False: 1-F, 2-T, 3-T, 4-F, 5-T, 6-T, 7-F, 8-T, 9-F, 10-T

C. Fill Blanks: 1-gaps, 2-sound, 3-freeze, 4-armor, 5-team

D. Comprehension:

1. They are about the size of a grain of rice
2. They are made of water with a special powder shell
3. Scientists move them with sound waves