

Read the short story. Then answer each question.

Changes

Did you know that heating and cooling can change objects?

Some changes can be reversed, which means the object can go back to the way it was before it was heated up or cooled down.

Other changes cannot be reversed, which means the object cannot go back to how it was before it was heated up or cooled down.



Water can go through reversible changes when it is heated or cooled. When water is heated up, it will start to boil, and then turn into water vapor. If you collect the water vapor and cool it down, it will turn back into water. When water is cooled down a lot, it will turn into ice. If you heat the ice back up, it will turn into water again.

Have you ever watched an adult cook an egg? Eggs go through a change that cannot be reversed when they are heated. When the liquid egg white is heated, it turns into a solid. If you let the egg cool back down, though, the egg white will not turn back into a liquid.



Questions:

1. What does it mean if a change can be reversed?
Color the sentence that told you.

2. Are there changes that cannot be reversed?
Give an example.

3. Describe how heating and cooling water
changes it.

4. Can you think of another object that goes
through a change that cannot be reversed when
it is heated or cooled? Describe the change.

Answers:

1. What does it mean if a change can be reversed?
Color the sentence that told you.

Some changes can be reversed, which means the object can go back to the way it was before it was heated up or cooled down.

2. Are there changes that cannot be reversed?
Give an example.

Yes, there are changes that cannot be reversed. For example, when an egg is heated the liquid inside it turns into solid. When the egg cools down the inside does not go back to being a liquid.

3. Describe how heating and cooling water changes it.

When water is heated up, it will start to boil, and then turn into water vapor. If you collect the water vapor and cool it down, it will turn back into water.

4. Can you think of another object that goes through a change that cannot be reversed when it is heated or cooled? Describe the change.

Answers will vary.