Rock Candy Investigation
Now we are going to talk about a science project. Mrs. Green’s class is learning what happens when sugar dissolves in water.

This picture shows the materials the class will use. The class needs 2 cups of water and 4 cups of sugar. They also need ice, a pot, jars, pencils, string, and a hot plate.

The students want to see what will happen when they combine sugar with water at different temperatures.
Rock Candy Investigation

Cold Water Mixture

Hot Water Mixture
First, Mrs. Green stirs half the sugar into ice cold water and half the sugar into boiling hot water. She pours each sugar mixture into a separate jar.
Rock Candy Investigation

<table>
<thead>
<tr>
<th>Cold Water Mixture</th>
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<tbody>
<tr>
<td><img src="image1.png" alt="Cold Water Mixture" /></td>
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<table>
<thead>
<tr>
<th>Hot Water Mixture</th>
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<tbody>
<tr>
<td><img src="image2.png" alt="Hot Water Mixture" /></td>
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</table>
Next, the students hang a screw tied to the middle of a pencil in each sugar mixture. They leave the jars untouched and observe the changes.
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Day 1

Cold Water Mixture

Day 10

Day 24

Day 24

Hot Water Mixture

Day 10

Day 24

?
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Look at Day 1. In the cold water mixture, only a small amount of the sugar dissolved, or mixed evenly with the water. Most of the sugar settled at the bottom of the jar.

However, in the hot water mixture, the sugar completely dissolved in the water, creating a sugar water solution.
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Cold Water Mixture

Day 1

Day 10

Day 24

Hot Water Mixture

Day 1

Day 10

Day 24
Now look at Day 10. In the cold water mixture, the ice melted. Some of the water evaporated, which means the water changed from a liquid into a gas. But the sugar remained at the bottom of the jar.

In the hot water mixture, about half of the water evaporated. The sugar has started to form solid sugar crystals around the screw and the string.
Nina, make a hypothesis, or a scientific prediction, about what you think will happen to the cold water mixture by Day 24.
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Day 1

Hot Water Mixture

Day 10

Day 24

¿?
Now it’s your turn.

In a moment, I will ask you to make a hypothesis, or a scientific prediction, about what you think will happen to the hot water mixture by Day 24. Think about it.

Make a hypothesis, or a scientific prediction, about what you think will happen to the hot water mixture by Day 24.
Rock Candy Investigation

Cold Water Mixture

Day 1

Day 10

Day 24

Hot Water Mixture

Day 1

Day 10

Day 24
Now let’s talk about the results of the investigation. In the cold water mixture, some of the water evaporated by Day 24, but the sugar remained at the bottom of the jar.
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Cold Water Mixture

Day 1

Day 10

Day 24

Hot Water Mixture

Day 1

Day 10

Day 24
In the hot water mixture, however, all of the water evaporated from the jar by Day 24. The sugar that had dissolved in the hot water was left behind. Some of it collected on the string and the screw to make sugar crystals, called rock candy.
In this investigation, more sugar dissolved in boiling hot water than in ice cold water. The heat energy in the hot water affected the interaction of the water and the sugar, allowing more sugar to dissolve.
Rock Candy Investigation

Cold Water Mixture

Day 1

Day 10

Day 24

Hot Water Mixture

Day 1

Day 10

Day 24
Nina, explain to me step by step how the cold water mixture changed from Day 1 to Day 24, and how the temperature of the water affected the results.
Rock Candy Investigation

Cold Water Mixture

Day 1  Day 10  Day 24

Day 1  Day 10  Day 24

Hot Water Mixture
Now it’s your turn.
In a moment, I will ask you to explain to me step by step how the hot water mixture changed from Day 1 to Day 24, and how the temperature of the water affected the results. Think about it.

Explain to me step by step how the hot water mixture changed from Day 1 to Day 24, and how the temperature of the water affected the results.
This is the end of the Speaking Test. Thank you for talking with me today.