



# SESSION 5

## Bible Story

### Mary at the Tomb

John 20:1-18

## Pathfinder

Arise! Shine with Hope

## Materials

- 🔪 A large beaker or bottle
- 🔪 Brown craft paper
- 🔪 Tape
- 🔪 Dry ice (available from grocery stores)
- 🔪 Water
- 🔪 Cans of soda or other carbonated beverages
- 🔪 3% hydrogen peroxide or 6% hydrogen peroxide (not gel)
- 🔪 Dish soap
- 🔪 Red or orange food coloring
- 🔪 Packets of dry yeast
- 🔪 Funnel
- 🔪 Small disposable cups
- 🔪 Spoon
- 🔪 Access to warm water
- 🔪 Cookie sheet
- 🔪 Drop cloths
- 🔪 Gloves or oven mitts
- 🔪 Safety glasses

## Teacher Tip

Don't use gel peroxide. Also, the 6% hydrogen peroxide will create a bigger reaction than the 3% solution. Be prepared for a larger mess using the 6% solution.

# Adventure Island Volcano

## Discovery Experiment

### I. Preparation

Wrap brown craft paper around the large beaker or bottle to form something like a volcano. Secure the paper with tape. Place the "volcano" on the cookie sheet and use drop cloths to protect the table and floors of the classroom. Place the other materials on the table.

### II. Observation

SAY SOMETHING LIKE: **No trip to Adventure Island would be complete without a tour of the Adventure Island Volcano!**

Use oven mitts or gloves to place a chunk of dry ice in the model volcano. Add some room-temperature water to the volcano using the funnel.

ASK: **What do you notice about our volcano?** (*Explorers will be excited to share about the gas wafting out of the volcano due to the dry ice and water.*)

### III. Question & Hypothesis

SAY SOMETHING LIKE: **Sometimes heat will escape from volcanoes in the form of smoke.**

ASK: **What's another way we see heat escape from a volcano?** (*An eruption*)

### IV. Experiment

**Step 1:** Carefully pick up the volcano and tip it over to deposit the water and dry ice into a disposable cup. Show the Explorers the can of soda. Talk about what might happen if you were to shake the can. Pressure builds up inside the can. When the can is opened, the pressure is released. That's similar to what happens with volcanoes. Our volcano will work a little differently, but will have a similar reaction. (step 1 not pictured)

**Step 2:** Select an Explorer to help you with the experiment. Instruct the Explorer to squirt a generous amount of dish soap into the volcano (about ¼ of a cup). Have the Explorer add a few drops of red or orange food coloring to the volcano. Add ½ cup of hydrogen peroxide (either 3% or 6% solution) to the volcano.

**Step 3:** Now, have the Explorer help you pour a packet of yeast into a disposable cup. Add up to ¼ cup of warm water to the yeast. Make sure to not get the water too hot. Have the Explorer stir the yeast and water together using a spoon. Make sure the yeast is really well mixed.

**Step 4:** Pour the yeast into the volcano to create a chemical reaction. The yeast, hydrogen peroxide, and soap will create a foamy substance like lava. If you use the 3% solution, your volcano will have a slow reaction. The 6% solution will create a more explosive reaction.

## V. Analyze & Apply

**ASK:** What were you expecting the eruption to be like? Was the eruption kind of what you expected, or was it different than what you expected?

Have the Explorers take a moment to think about their experience of the experiment.

**SAY SOMETHING LIKE:** Our Bible story today tells us about the resurrection of Jesus from the dead. That word “resurrection” is a big word. It means that something rises again. A resurrection from the dead is very surprising and not what you would expect! Through Jesus’ resurrection, God shined the light of hope. We can shine God’s light of hope with others, too.

### Step 2



### Step 3



### Step 4

