

# Twister Time

## INVESTIGATING A WEATHER PHENOMENON

### Materials for Each Group

- 2 clear plastic bottles of the same size
- 1 washer
- Duct tape
- God Thought of It First cards (11-6-079), 1 per child

### Optional Materials

- Colored lamp oil
- Dish soap
- Glitter
- Tiny houses
- Small foam balls

### Pre-Prep

Fill one of the bottles for each group  $\frac{3}{4}$  of the way full with water. Or, allow children to do this during class time.

### Class Time Directions

This week at *Time Lab*, we've been learning about Jesus, the Creator of everything! Did you know he is in control of the weather, too? Let's take a look at a few verses that show us Jesus is sovereign, or in control, over the weather.

Choose from the following passages to read: 1 Samuel 12:17-18; Job 28:25-27; Psalm 135:5-7, 148:5-8; Jonah 1:4, 4:8; Matthew 5:43-45; Luke 8:24-25; James 5:17-18.

In the beginning, when Jesus created the earth, it was a beautiful place. It's very likely that the temperature was similar in most parts of the earth—it was likely warm all over and didn't have the temperature extremes that we have today. Today, we have cold Arctic areas and warm tropical areas. These

temperature differences can affect weather patterns around the world. Today, when hot air masses and cold air masses come into contact, we can experience thunderstorms and even tornadoes. What kind of damage can a tornado do? Allow responses: tear down houses, move cars, etc.

Tornadoes can be scary, can't they? While we know that Jesus is in control of the weather, we can look forward to the time in the future when those who are his children will live in the new heaven and new earth with him. Do you know for certain that you are part of his family? If you don't, please come talk to me or another leader so we can explain how you can become a forever child of God. The new heaven and earth will be a wonderful place! We will enjoy being with Jesus forever and exploring that new place. And we won't need to worry about tornadoes or hurricanes because there won't be any death or sorrow or pain, which are all the effects of sin on our world. It will be filled with all good things because Jesus is good.

Today, we're going to experiment with making a tornado in a jar!

Pass out the supplies to each group. Place the washer on top of the water-filled bottle. Invert the other bottle over the water-filled bottle and washer. Place tape around the necks of the bottles to prevent water from leaking out. Invert the bottles so the one with the water is on top, then swirl the bottles. A "tornado" should develop inside the bottle as the water flows into the empty bottle.

The swirl created is a vortex. When swirled, these liquids and gases move around a centerline in a spiral and then fall through an opening creating a vortex. Gravity, which we talked about the other day, pulls the liquid through the opening and the swirling vortex develops. Isn't it amazing to study the different effects that God's laws have on his creation?

For additional fun, add any or all of the following to the water bottles: colored lamp oil for visual interest, a squirt of dish soap for some fizz, glitter for some pizzazz, tiny houses (from board games) for drama, small foam balls for an interesting effect. After children are finished, they can empty their jars for the next class.

Pass out the God Thought of It First cards, 1 per child.

