

Day 5 Experiment

Rainbow Fun

Materials

- ☐ Flashlights, 1 per group (Note: LED flashlights do not create as colorful of a rainbow as regular flashlights)
- ☐ Clear bowls of water, 1 per group
- ☐ Child-safe mirrors, 1 per group
- ☐ White copy paper, 1 sheet per group
- ☐ 1 Flood Legend card per child (11-4-079)—North America



Class Time Directions

After the Flood waters had gone down, Noah and his family left the Ark. They built an altar and thanked God. God made a promise to Noah and his family. Does anyone know what promise God made? Take responses. God promised to never again flood the whole earth with water.

Has God kept that promise? Take responses. Yes, He has! The whole earth has never again been covered in water, nor will it ever be. It is called a global flood when the whole earth is covered. But local floods still happen. When there are heavy rains or lots of snow melts, local flooding happens if the ground is too saturated to absorb any more water. A street might be under water because of flooding, or maybe even a whole city! In 1937 the Ohio River flooded and the entire downtown area of Louisville, Kentucky was so flooded you had to travel by boat! Several states were affected by this flood because it was a big flood. Did the flood of 1937 mean that God broke His promise to Noah? Take responses. No! The flood of 1937 was a local flood. Even though the flood reached several states, it was still a local flood, not affecting the whole earth. God keeps His promises!

When He made the promise to Noah, He used something as a reminder. Does anyone remember what God used? Take responses. That's right! God put a rainbow in the sky as a reminder of His promise to never again flood the whole earth.

Normally, we see rainbows when the sun is shining after the rain. Sometimes we see a rainbow in the spray from

a water hose on a sunny day. That's because rainbows are formed from light and water. Sunlight is actually made up of colors, but they blend together so we only see white light. When a beam of light hits a raindrop at a certain angle, however, the different colors in that beam of light separate, creating a rainbow! The light exits the raindrop as separate colors. So each rainbow is made up of beams of light shining through millions of raindrops.

Today you're going to try to create your own rainbows using a flashlight and a bowl of water.

In groups, children will submerge their mirrors in the glass bowl at an angle. Darken the room by turning off the lights. If you have windows, you may need to cover them. Children will take turns creating rainbows by shining their flashlight onto the submerged mirror. One can hold the mirror, one the flashlight, and one the paper. (They can take turns and switch their responsibilities.) The mirror should reflect the light through the water, creating a rainbow on the piece of white paper (or the wall).

Great job creating rainbows! The light from your flashlights was shining into the water and being reflected and bent in the same way light shining through raindrops makes a rainbow. The water refracted (bent, changed the direction of) the light, separating it into colors, and the mirror reflected it onto the paper or wall. How cool! This is just like how God makes a rainbow appear in the sky where the light is both refracted and reflected in the raindrops. When we see a beautiful rainbow during or after the rain, what are we reminded of? Take responses. Every time we see a rainbow, we are reminded of God's

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promise to never flood the whole earth again. And we know God's promises are true, because His Word tells us that God never lies or breaks a promise. So every time we see a rainbow, we can give thanks that God has kept His promise and never flooded the earth again!

Pass out the Flood Legend card for today and remind children that the flood legends found around the world are remnants of the true account given in the Bible.