

DAY ONE: Light and Dark

Shadow Stretch

For every four children, gather

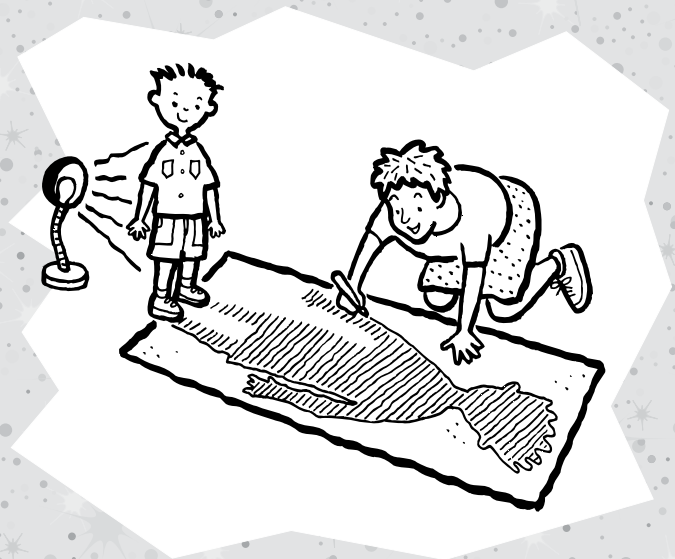
- 7-foot (2.1-m) length of butcher paper laid on floor
- Desk lamp
- 4 colored markers (one color for each child)

Introduce

What makes a shadow big? What makes the shadow of something big look small? Let's try this experiment to find out.

Do

1. Set the lamp near one end of paper and then darken the room.
2. Children take turns to stand at one end of the paper. Outline and label each child's shadow on the paper.
3. Vary the position of the lamp to create longer or shorter shadows.
4. Older children may enjoy lying on the traced shadows to compare their body sizes to the sizes of their shadows.



Why It Works

When we move the lamp, the light shines on our bodies in a different way. This makes our shadows change in shape and size.

Prayer and Praise

When we go outside today, do you think your shadow will be long or short? Children respond. Let's thank God for times when our shadows are long and short. Children join in slowly saying the word "long" and then quickly saying the word "short" as you use those words in prayer. (Optional: Children go outside to observe their shadows. Pray aloud outdoors.)

DAY ONE: Light and Dark

Ultraviolet Light

For every four children, gather

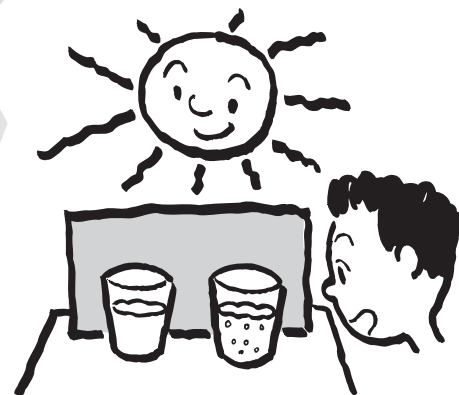
- 2 clear plastic cups
- Tonic water
- Tap water
- Sheet of black construction paper

Introduce

God made some kinds of light that we cannot see with our eyes. Let's try this experiment to see ultraviolet light, a kind of light we can't usually see.

Do

1. Set cups in a sunny place.
2. Children watch as you fill one cup with tonic water and the other with tap water.
3. One child holds the piece of black paper behind the cups.
4. Other children look through the sides of the glasses at the top surfaces of both kinds of water. **What do you see? Which water surface looks blue? We know the water is clear. What do you think makes it blue?**
5. Children trade assignments so everyone has a turn to look.



Why It Works

The tonic water has a chemical in it called quinine. When the sunlight shines on the tonic water, the quinine makes the ultraviolet part of the sunlight show.

Prayer and Praise

Let's pray together. When I say, "Thank You, God," let's each take a turn to name something that gives light. Conclude, **We are glad for the ways You made light for us! In Jesus' name, amen.** (Optional: Children draw pictures of sources of light and then name pictured items in prayer.)