Making Shadows

Make shadow puppets and put on a play!

Day 1 (20–30 minutes)

VIDEO

Bringing Spring
Peep, Chirp, and Quack meet a young groundhog and help her find her shadow.

What Your Child Will Learn

Science skills: Testing, observing, and experimenting with shadows, describing and comparing them, and sharing ideas

Science ideas:
- A shadow is made when an object blocks the light.
- Shadows disappear when the light disappears.

Vocabulary words to practice: shadow

What You Need

☐ Video: Bringing Spring (9 minutes)

What to Do

Sit together so you can talk about the video while you watch.

- Before you watch, SAY: Let’s see what happens when Peep, Chirp, and Quack explain to a groundhog what a shadow is.
ACTIVITY

What Your Child Will Learn

Science skills: Observing, describing, and comparing shadows

Science ideas:
• A shadow shows the shape on an object, but it doesn’t show many other details.
• You can change the shape of a shadow by moving and turning your body or turning an object.
• Indoors, you can change the size of a shadow by moving your body or the object close to or farther from the light.

Vocabulary words to practice: shadow, flashlight, light

What You Need

☐ bright lamp, flashlight, or flashlight on phone
☐ blank wall to make shadows on
☐ objects from around your home

What to Do

1. SAY: I’m going to make a shadow on the wall, but I’m not going to show you what I’m making it with. Pretend you are a detective and try to figure out what is making the mysterious shadow.

2. Dim the lights and turn on the flashlight (or lamp). Stand behind your child and keep the objects you collected hidden. Pick one object and use it to make a shadow.

3. Have your child guess what is making the shadow. ASK: How did you figure out what the object was without seeing it?
4. Play again. Make **shadows** with the other objects and have your child guess what they are.

**Ask Questions and Talk about Ideas**
Talk out loud about your ideas so your child can learn from listening to you. Start by saying, “I wonder . . .,” “I think . . .,” and “What if . . .?”

**Keep Learning!**
- Change roles. Have your child collect some new objects and make **shadows** with them. Now it’s your turn to guess. Describe how you figured out what made the **shadow**.

**Play and Explore Together**
Put your child in charge—giving children more control keeps them interested and having fun.

- Play a harder version of the game. This time choose objects that are easy to recognize when you hold them one way, but hard to recognize when you hold them another way (a book or a comb, for example). First make the “hard” **shadow**, then the “easy” one.
Day 2  (20–30 minutes)

**VIDEO**

**Bringing Spring**
Peep, Chirp, and Quack meet a young groundhog and help her find her shadow.

**What Your Child Will Learn**

Science skills: Testing, observing, and experimenting with shadows, describing and comparing them, and sharing ideas

Science ideas:
• A shadow is made when an object blocks the light.
• Shadows disappear when the light disappears.

Vocabulary words to practice: shadow, notice

**What You Need**

- Video: *Bringing Spring* (9 minutes)

**What to Do**

Watch the video again to make new discoveries. Talk about what you noticed this time.

**Explore More!**

Watch it again! Children learn new things each time.

**ACTIVITY**

**Shadow Puppets**
Make a shadow puppet show.

**What Your Child Will Learn**

Science skills: Testing, observing, and experimenting with shadows, describing and comparing them, making predictions, and sharing ideas

Science ideas:
• Indoors, you can change the size of a shadow by moving your body or the object close to or farther from the light.
• A shadow shows the shape of an object, but it doesn’t show many other details.

Vocabulary words to practice: shadow, light, test, puppet, predict, change, shine
What You Need

- bright lamp, flashlight, or flashlight on phone
- camera on phone
- blank wall to make shadows on
- art supplies to make puppets (construction paper or paper plates, crayons, tape)
- craft stick, chop stick, straws, ruler, or pencil (to make a long handle for your puppet)

What to Do

1. **SAY:** Let’s make shadow puppets and put on a puppet show!

2. To make a puppet, have your child draw a person or animal (pretend or real) on construction paper or a paper plate. Then cut it out.

3. Test your puppet by holding it in front of a light to make a shadow. **ASK:**
   - Is this what you predicted (thought) your shadow puppet would look like?
   - If not, how can you change your puppet, so it makes a different shadow?
   - If you wanted to see your puppet’s eyes or mouth, what could you do? (Cut holes so light can shine through.)

4. When your child is finished making the puppet, tape it to a craft stick (or a straw or ruler). Now you have a handle.

5. Have your child play with the puppet. Can your child make the shadow really big or really small or twirl around?

6. Put on a puppet show!

**Play and Explore Together**
Notice what excites your child—and play along!

Keep Learning!

- Make more puppets and give a puppet show that tells a story. Invite your friends and family to watch.
- Make a video of your puppet show and watch it. Does is give you ideas for other shadow puppets you could make?
- Make paper snowflakes by folding a piece of paper and cutting pieces out of it. Unfold it and hold it up to the light. But before you do, have your child predict (think) what the shadow will look like.

**Explore More!**
Add new materials to explore in a different way.
Online Game (Optional)

Go to the PEEP and the Big Wide World website (peepandthebigwideworld.com) and play a game about shadows called Shadow Shapes. Help Chirp match the objects to their shadows.

Play, Talk, and Explore More!

Congratulations! You’ve done a whole month of science activities about shadows. Look for other ways to keep exploring shadows together, indoors and outdoors. The more you play, talk, and explore together, the more you help your child think, learn, and grow.