



For People Who Care for Young Children

ME AND MY SHADOW

February is a perfect month to study shadows. A shadow is created when the light coming from a light source such as the sun, a light bulb, or a flashlight is blocked by a solid object. The light can't get through, and the dark area that's created on the surface is a shadow. Let children enjoy the fun of shadow making with these activities.

- **Shadow Play**—“Having a shadow” is a hard concept for young children to understand. Hang a white sheet from the ceiling with a bright lamp or projector behind it. Turn off the room lights. Have all children sit in front of the sheet and watch while one child at a time goes behind the sheet and does a movement activity. Children can watch their friends' shadow movements. Encourage them to hold objects (balls, toys and so on) to create more shadows!
- **Shadow Tag**—Challenge children to a twist on an old game. You will need a sunny afternoon. Choose one player to be “it” and have him chase the others. In this game, instead of tagging another person, “it” has to touch the other player's shadow with his own. When another person's shadow is

tagged, that player becomes “it” and the game continues until no shadow remains untagged.

- **Shadow Puppets**—Trace around animal and people cookie cutters on construction paper. Cut out these shapes and punch eyes where needed with a hole punch. Glue the shapes onto Popsicle sticks. Encourage children to use their puppets to create shadows on the wall with flashlights or cast shadows outdoors in the sunlight.

Make up stories or act songs with these special characters.

- **Shadow Song**—(Tune: “Twinkle, Twinkle Little Star”)

*Shadows dance upon the wall,
 Sometimes big and sometimes small.*

*Shadows follow me outdoors,
 Sunshine makes them move and fall.*

*Shadows at my side and feet,
 Shadows everywhere I peek.*





IT'S GROUNDHOG DAY!

Groundhog Day is celebrated on February 2nd each year. There is a legend that says Mr. Groundhog crawls out of his home in the ground very early in the morning on February 2nd. He takes a look all around as he is looking for his shadow. If it's a sunny day, Mr. Groundhog will see his shadow and it scares him. He dives back down into his burrow to hide. In the folktale, if this happens it will be winter for six more weeks. On the other hand, if it's a cloudy day and Mr. Groundhog doesn't see his shadow, he plays and this means spring is on its way.

There is a "special" groundhog that is watched by people in the eastern part of the United States. His name is Punxsutawney Phil from Punxsutawney, Pennsylvania. Groups of people watch him on this particular day and report their findings on TV, radio and newspapers. This weather prediction has been a Punxsutawney tradition since 1887.

For more information about Phil, call the Punxsutawney Chamber of Commerce hot line at 1-800-752-PHIL or visit his web site: www.groundhog.org.

GROUNDHOG ACTIVITIES

* **Pop-up Play**—Place a large cardboard carton in the middle of the room. Have children take turns hiding inside the box. As you chant this rhyme, children can pop their heads out. Each child can decide whether to "see his shadow" (crawl back inside) or "jump outside to play" (early spring is coming).

*Groundhog, groundhog, please come out today.
Groundhog, groundhog, will you stay and play?
If you see your shadow, I know you'll run away.
If there is not shadow, spring is on its way.
So, groundhog, groundhog, please come out today.*

To join us children outdoors to play and play and play!

* **Groundhog Picture**—Give each child a sheet of light blue construction paper. Ask children to draw small hill of green grass, trees and bushes. Draw or trace a small groundhog for the children to color, cut out and glue to a Popsicle stick. Make a slit in the paper to represent the hole in the ground where the groundhog lives. Show children how to move the stick so the groundhog pops up and down through the slit. Have children listen to the weather report to find out if Punxsutawney Phil saw his shadow. Tell children to draw a sun in the sky if the groundhog saw his shadow or a cloud if he didn't see it.

* **Groundhog Game**—Make a sun and a cloud shape from construction paper before playing this game. Have children sit in a circle. Choose one child as the groundhog. If the groundhog holds up the sun, children pretend to see their shadows by lying down on the floor and pretending to sleep (hibernate). If the groundhog holds up the cloud, children do not see their shadows, so they jump up and dance (spring is near).

SHADOW MEASURING

YOU'LL NEED:



roll of paper



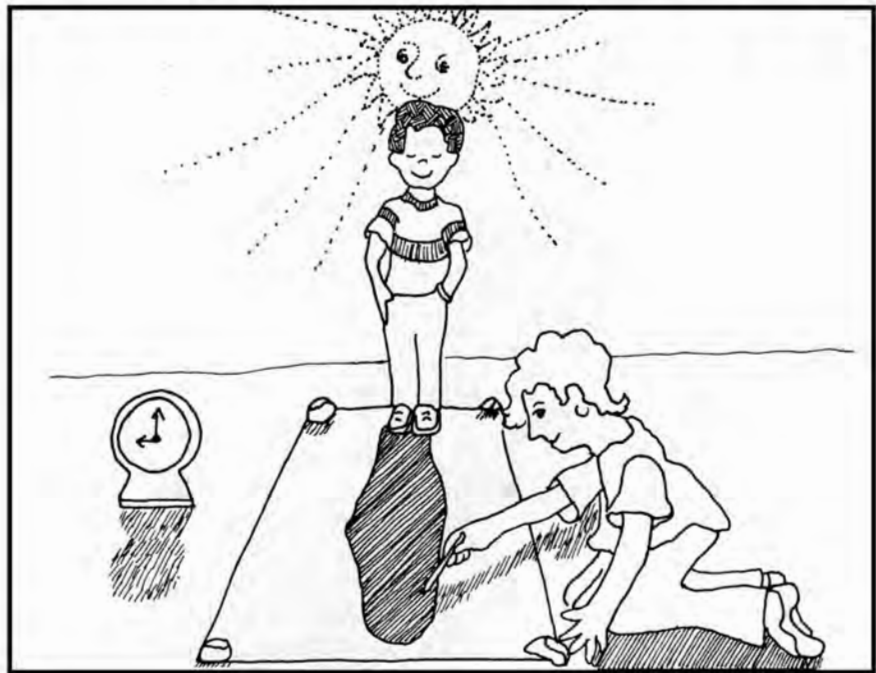
marker



clock



sunny day



WHAT TO DO:

1. Help child place strips of paper on a sidewalk or driveway. Paper should be placed approximately East/West so that it will catch child's shadow. Hold down with rocks.

2. On a sunny day, at about 9:00 a.m., have child stand very still at the bottom of paper so that whole shadow fits on paper.

3. Have another child or another adult trace outline of the shadow as it falls on the paper.

4. At 12:00 noon — the same day — reposition the child (and paper if necessary) so that child's shadow again falls onto paper.

5. Have another child or another adult trace the outline of shadow as it now falls onto paper.

6. Compare, with children, each of their two outlines. What happened? Why? What do children think the shadows would look like later in the afternoon?

from *Counting on Math* by Martha Hayes and Kathy Faggella

BOOK CORNER:

IN THE

- 📖 *Groundhog Day* by Michelle Aki Becker (Children's Press)
- 📖 *It's Groundhog Day* by Steven Kroll (Scholastic)
- 📖 *Gregory's Shadow* by Don Freeman (Puffin Books)
- 📖 *What Is My Shadow Made Of? Questions Kids Ask About Everyday Science* by Neil Morris & Mike Brown (Reader's Digest)
- 📖 *Nothing Sticks Like a Shadow* by Ann Tompert (Houghton Mifflin)

AFTER-SCHOOLER IDEA: Learning with Shadows



SHADOW HAND PUPPETS

This is such an easy activity. Simply direct light onto a wall (Flashlights work great.) and challenge children to make shadows with their hands. Try some easy favorites such as a barking dog and a turkey with a droopy, dangly neck. Then let them invent shadow puppets they've never seen before just by moving and bending their fingers and hands in different positions.

SHADOW TOWN

Invite older children to make their own shadow town by arranging small boxes, cans, and other small items into a straight line in direct sunlight. Try doing this activity on a concrete driveway or on a large

piece of paper or cardboard. Once the objects are lined up and casting a shadow, ask children to trace the outline of the shadow with sidewalk chalk to form their city's "skyline." When the skyline is finished, invite younger children to bring their toy cars over to play in the shadow town.



SHADOW MATH

Using shadows is an interesting way to help children learn more about size, shape, and measurement relationships. Step outside on a sunny day and let the learning fun begin!

You'll Need: ball ▲ bicycle
▲ blocks

What to Do:

1. Invite children to stand in the sun along with a ball and a bike.
2. Encourage them to notice differences in the sizes and shapes of the shadows they see.
3. Help them to use blocks to measure how big the bike shadow is and how big the other shadows are.

Later in the day, suggest that they try this activity again. What differences do they notice?

4. Ask questions such as:

- ◆ *Which creates the largest shadow?*
- ◆ *What shadow shape is round?*
- ◆ *Can you move the objects and change the shadows?*

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