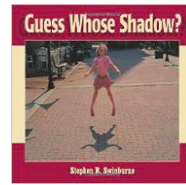
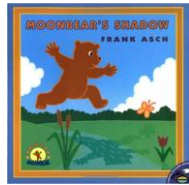




# Experimenting With Shadows



Blocks

## Standards:

SED.SD.BRC.PS.14-16  
ATL.EP.PS.1-5  
ELA.SL.CC.PS.1-3  
PHD.FM.PS.5-6  
S.PS.PS.4

### Materials:

- *Moonbear's Shadow*
- *Guess Whose Shadow?*
- variety of materials, i.e., blocks, pretend animals, Beautiful Stuff, bottles filled with colored water, magnetiles, etc.
- White wall or white poster boards/sheet to create shadows

### Vocabulary:

- light source
- shadow
- flashlight
- snarl
- windowsill
- opaque
- Translucent
- transparent

**Preparation:** Set up materials.

### Intro to Centers:

"In *Moonbear's Shadow*, Bear tried many things to get rid of his **shadow**. What do you notice?"

"Today in Blocks, you can experiment with **shadows** using these different materials. What do you notice?"

"You can use a **flashlight** as the **light source**."

*Show illustrations. Children respond.*

*Show materials. Children respond.*

*Model.*

### During Centers:

Encourage children to compare and contrast the shadows they create to the illustrations in *Moonbear's Shadow*/images/each other's shadows. Encourage children to experiment with positioning objects and light sources at different angles. Challenge children to make two or more shadows overlap/touch. Compare and contrast shadows' lengths and widths.

### Guiding Questions during Centers:

- How can you change the size of your shadow?
- What happens to your shadow(s) if we turn off the classroom lights?
- How is your shadow similar to or different from illustrations in *Moonbear's Shadow*?
- How can you measure the length/width of your shadow?  
Why is this shadow colorful?

**Thinking & Feedback:** Invite children to share their processes. Encourage children to describe the challenges they might have encountered.

**Documentation:** Collect samples of the children's work as well as photographs and/or video of their process; use the documentation to launch a discussion during Thinking and Feedback.

**Provocation:** Encourage children to create shadows on the playground. Compare and contrast sizes of shadows at different times of the day.

