

What Makes a Shadow?

DISCOVERY PLAY ACTIVITIES WITH YOUR YOUNG CHILD

Every child is different, and these are only suggested adaptations and activities. Do what works best for encouraging your child's independent exploration during this suggested play activity. Consult your pediatrician, physical therapist (PT), and/or occupational therapist (OT) first.



STEM Concept(s): Cause & Effect, Spatial Positioning, Geometry, Light & Shadow

Help your child recognize **shadows.** Shadows are created when light is blocked from reaching the ground by something opaque. Step outside or find a flashlight and a blank space inside to cast shadows. Use different objects to create different shadows. Move objects around to see what the shadows do.

STEM IDEAS/WORDS

- Sun
- Light
- Shapes
- Shadow

MATERIALS

- Flashlight or lamp
- Household items (toys, cooking utensils

OPEN-ENDED QUESTIONS

- What do you notice?
- What happens to the shadows when we move? What happens to the shadows when we move the objects?
- What do you think would happen to the shadow if we took the light away? Will the shadow go faster? Slower? Will the shadow get bigger? Smaller?



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ENVIRONMENT

- If possible, limit background noise & distractions
- Wear sunglasses/hat if sensitive to bright light
- · Use modified or flexible seating
- · Place activity items on an anti-slip mat or in a container or tray
- Place objects within reach

MATERIALS

- Have child's assistive technology ready and available, including augmentative & alternative communication (AAC) device and/or power wheelchair
- Add additional material(s) to flashlight and objects to make it easier to grasp, lift, or turn

INSTRUCTION

- Use a variety of methods of communication (e.g., sign language, gestures) to meaningfully engage children
- Use pictures and/or icons to signal next steps (see following card)
- Provide prompts to help the child create a shadow and help the child imitate



Follow your child's lead and interests. Enthusiastically ask your child questions about what they are doing and what they like.



Answer your child's questions. If you do not know the answer, work together with your child to discover the answer.



Encourage your child to participate in the activity as much as possible. Praise your child's efforts and successes.



WHAT MAKES A SHADOW? ADAPTATIONS

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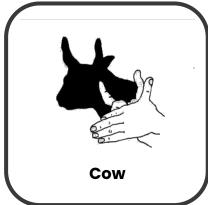
VISUAL CUES: USE TO SIGNAL NEXT STEPS



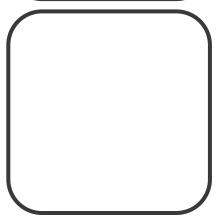


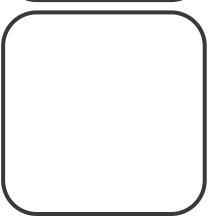


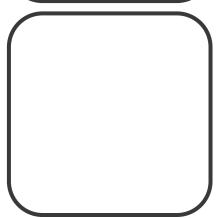














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ADDITIONAL ACTIVITY IDEAS

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- Compare and contrast shadows of different sized objects (blocks, balls, spoons) with a single light source and with two or more light sources. Create a visual chart to capture the data.
- Lay down paper to trace shadows created by toys.
- Use hands to create animal shadows (see previous card for ideas).
- Go outside and 'dance' with your shadow.
- Check out these great books about shadows:
 - o Bear's Shadow by Frank Asch
 - o Moonbear's Shadow by Frank Asch
 - o The Snowy Day by Ezra Jack Keats

