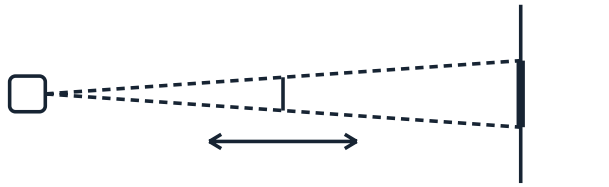
TEACHER COPY

Light, Shadows & Story

Kindergarten · 20 minutes · 5-minute prep

Tell your learners: “We will find out how to change a shadow, then use it to tell a story.”



Allow 5 minutes to set up after printing and gathering equipment. Test a visible shadow before learners arrive.

The core time covers a short demonstration, practice, partner storytelling, and oral reflection. Drawing, station rotations, whole-class performances, and investigations need additional time. Student sheets are optional recording tools, not a completion checklist.

Gather

□ One cool LED flashlight or lamp

□ A plain wall or securely clipped white sheet

□ Figure cards and student pages from this packet

□ Pencils and clipboards or firm writing surfaces

□ Teacher-prepared cardstock shapes

Keep everyone safe

□ Use cool LED lights only; do not use candles, lasers, or hot lamps.

□ Keep beams below eye level and never shine a light into anyone’s eyes.

□ Secure sheets, cords, and stands; keep walking paths clear.

Dim the room only as needed. Keep faces out of the beam and walking routes visible.

Print once, then copy

Pages 1–4: one teacher set. Pages 5–6: student masters, grouped at the end for copying.

Choose page 5 OR page 6 for optional drawing after the lesson, or copy neither. Read prompts aloud; children can tell, point, sign, or show instead.

Print at actual size on Letter, or fit to printable area on A4. These activities work from the printed pages.

Whole-class theater

1. Aim one cool LED light at a wall or taut sheet.
2. Mark a performer spot and audience line. Use a few volunteers; seated partners predict, practice shapes, and plan stories.
3. Do not queue every pair in the core lesson. Offer later supervised center turns so everyone can test a shadow.

Small-group stations

1. Prepare one light and vertical screen per group of 3–4 before teaching.
2. Combine roles as needed: maker, narrator, observer. An adult checks light safety.
3. Work simultaneously. Swap maker after each try; add time for full rotations.

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Your 20-minute exploration

Read prompts aloud and model each activity. Accept telling, pointing, signing, or showing. After exploring, choose one optional recording page or none; an adult can scribe. Independent reading, names, spelling, sentences, and recognizable drawings are not required.

3 min **Notice**

Teacher: Show a card shadow. Point out the light, card, and wall.

Children: Point to the shadow and tell a partner what you see.

Ask: What do you notice on the wall?

Listen for: Children point to or describe a shadow.

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4 min **Try a change**

Teacher: Show the lit wall, then put a card in the beam. Ask before trying.

Children: Say or show what you think will happen, then what you saw.

Ask: Predict: what will happen when I put a card in the light? Try it. What did you notice?

Listen for: The card blocks light; its shadow appears on the screen.

Optional recording: page 5. Oral responses fit the core time.

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6 min **Explore shapes**

Teacher: Model one slow turn. Use volunteers at one light or pairs at prepared stations.

Children: Try or watch one change. Seated partners practice a comfortable shape together.

Ask: What changes when you turn your hand or card?

Listen for: Children explore an open hand, relaxed fist, or cardstock shape.

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4 min **Tell a tiny story**

Teacher: Model First, Next, Last. Include the shadow change you just explored.

Children: Tell a partner a tiny story; turn a shape to show a change. Swap storyteller.

Ask: First it arrives. What happens next?

Listen for: Partners move a shape and tell, sign, or act out a story.

For example: First, a card character hides edge-on. Next, it turns to face the light and appears. Last, it turns edge-on and hides again.

Optional recording: page 6. Oral responses fit the core time.

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3 min **Share a discovery**

Teacher: Invite two discoveries and listen to partner responses.

Children: Show one change: I turned ___. I saw ___.

Ask: Show one thing you found out.

Listen for: Children point, draw, speak, sign, or demonstrate.

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Start with simple shapes

An open hand

Hold your hand comfortably in the light. Turn it slowly. What changes on the screen?

A relaxed fist

Curl your fingers gently. Turn the rounded side toward the light. Move your shape slowly across the screen.

A cardstock shape

Hold a teacher-prepared circle, triangle, or other shape in the beam. Turn it edge-on, then turn it back. What do you notice?

Optional animals to try

Turtle

1. Curl all four fingers into one relaxed, rounded fist.
2. Fold the thumb close to the fingers so it does not stick out.
3. Turn the rounded side toward the light to make a compact shell silhouette.

Try a movement: Move the shell slowly forward with a tiny bob.

Check the outline: If the shell looks jagged, relax the knuckles and tuck the thumb closer. This simple pose shows a shell, not separate legs or a head.

Turtle tutorial
shadowpals.com/explore/how-to-make-a-hand-shadow-turtle



One-hand shell pose. Keep the fist comfortable, not tightly clenched.

Dog

1. Hold the fingers together and bend the index finger to shape the snout.
2. Raise the thumb for the ear. Keep the middle and ring fingers together; the little finger forms the lower jaw.
3. Turn the hand sideways to the light until the ear and snout read as a dog.

Try a movement: Tilt the head, then move the little finger to open and close the mouth.

Check the outline: If the muzzle disappears, turn the wrist slightly; keep the thumb ear above the snout.

Dog tutorial
shadowpals.com/explore/how-to-make-a-hand-shadow-dog



Keep the middle and ring fingers touching. Move only the little finger to open the mouth.

Let children choose either pose—or stay with a simple shape. Making a recognizable animal is not the learning goal.

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Notice learning, welcome every child

Look for

□ Points to the light, object, or shadow.

□ Shows or describes one change they noticed.

Make room for every learner

□ Begin with an open hand, relaxed fist, or cardstock shape.

□ Accept pointing, drawing, speaking, signing, or demonstration.

□ Let an adult scribe; animal poses are optional.

□ Use large-print cards and high-contrast outlines.

□ Offer a partner to shape cardstock or point to choices.

□ Reduce visual clutter by presenting one card at a time.

□ Describe every demonstration aloud.

Assess what children notice about light, not handwriting, finger dexterity, or performance. Model on your own hand; never force or reposition a child's fingers.

Words to explore

light source
Something that gives off light.

shadow
A darker area where light is blocked.

silhouette
The filled-in outline of a shape.

Teacher science notes

A shadow forms where an object blocks light from reaching a surface.

Keep the light and screen fixed. Moving the object toward the light makes its shadow larger; toward the screen makes it smaller.

Turning an object changes the outline facing the light, changing its silhouette.

A shadow is an area receiving less light because an object blocks the light path.

Teaching sources

1. Smithsonian Science Education Center: Light Our Way: Grade 1 Phenomenon
2. Smithsonian Science Education Center: Focused Exploration: Light and Shadows
3. Next Generation Science Standards: 1-PS4-3 Waves and Their Applications
4. Exploratorium Institute for Inquiry: Subtle Shifts in Thinking
5. NAEYC: What's in a Shadow?

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This indoor lesson explores shadows, not sunlight warming. It does not assess K-PS3-1. This is a lesson kit, not a complete or independently validated curriculum.

Student pages support drawing or teacher scribing. A child may instead explain, point, sign, or demonstrate a discovery.

INDIVIDUAL STUDENT COPY · DRAW & SHARE

Predict, try & notice

Tell or show first. Drawing is optional.

Adult: show the lit wall. Ask for a prediction BEFORE putting the card in the beam. Then add the card and ask what happened. Keep the light and wall still.

I think...

What will happen? Tell, point, or show.

I saw...

What happened? Tell, point, or show. You may draw it here.

An adult may write your words. You do not need to write your name or a sentence.

SHARED STUDENT COPY · ONE PER PAIR

Our tiny shadow story

Tell, sign, or act out a story together.

Adult: model a short story with a shadow change. Read one prompt at a time.

1. First: who arrives?
2. Next: what happens?
3. Last: how does it end?

Choose one moment

Show what your shadow did. If you want, draw one moment here.

An adult may write your words. Telling or showing your story is enough.