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Smithsonian STEAM Readers—Grade 1

This sample includes the following:

To Create a World in which Children Love to Learn!

Smithsonian

STEAM Readers

Science ▪ Technology ▪ Engineering ▪ Arts ▪ Mathematics

Management Guide

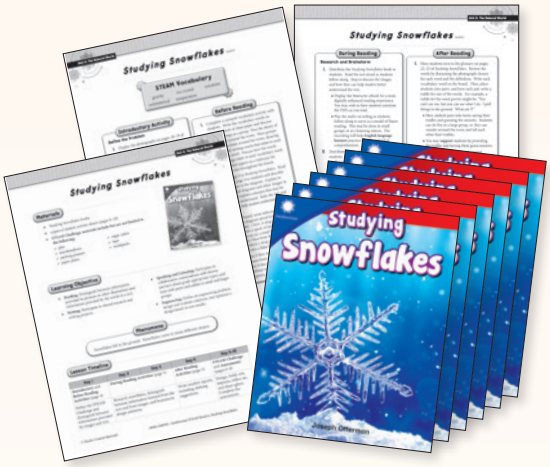
Grade 1

Teacher Created Materials

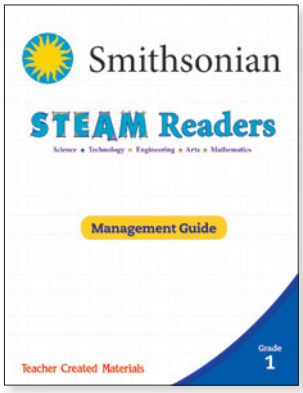
Table of Contents

Kit Components

15 lesson plans with 6 copies of each book

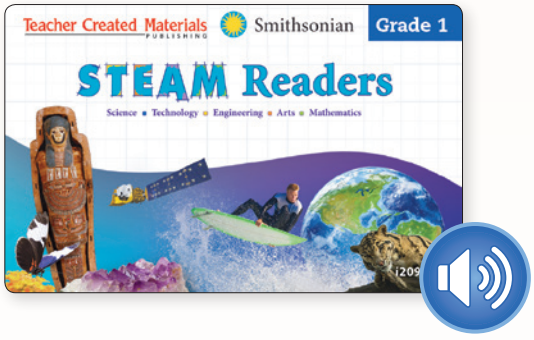


Management Guide



Culminating Activity

Digital and Audio Resources

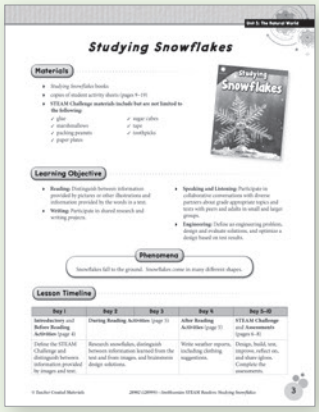


Lesson Plan Components

Each 10-day lesson sequence is organized in a consistent format for ease of use.

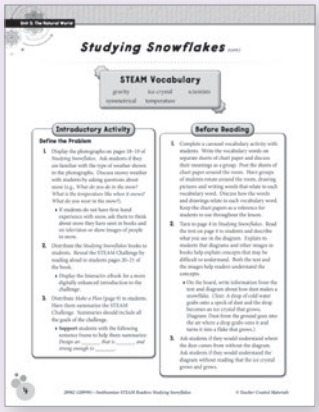
Overview

- The overview page includes learning objectives, a materials list, and a suggested timeline for lessons.



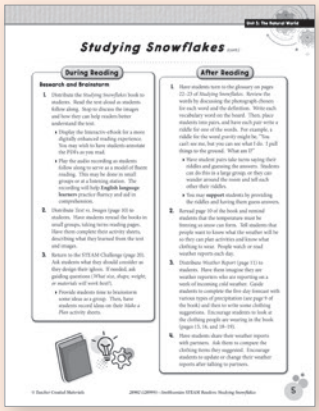
Day 1

- Students are introduced to the STEAM Challenge, vocabulary, and reading skill.



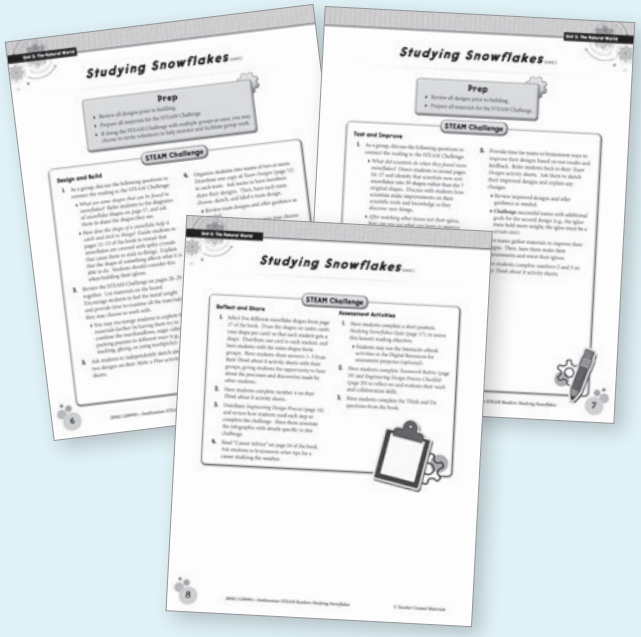
Days 2–4

- Students complete reading and writing activities as they gain knowledge that will help them with the STEAM Challenge.



Days 5–10

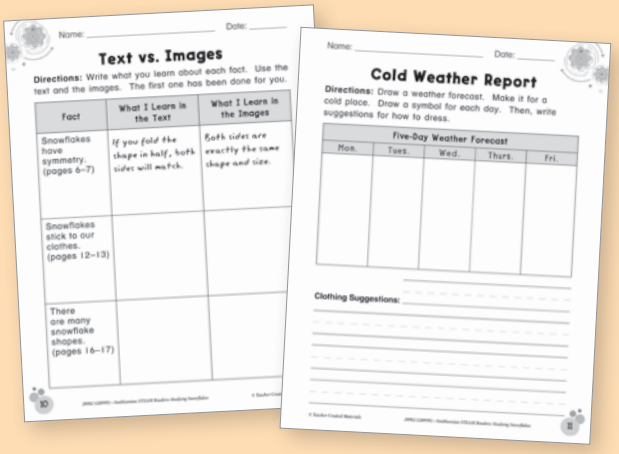
- Students take what they've learned and apply it to design, build, test, and improve a solution.
- Students reflect, share work, and take assessments.



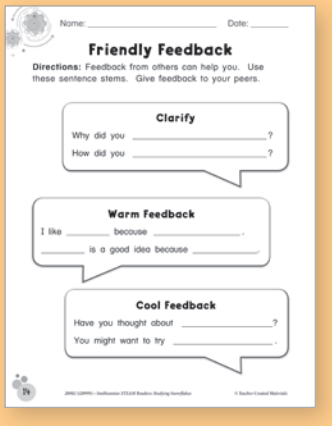
Lesson Plan Components *(cont.)*

Student Activity Sheets

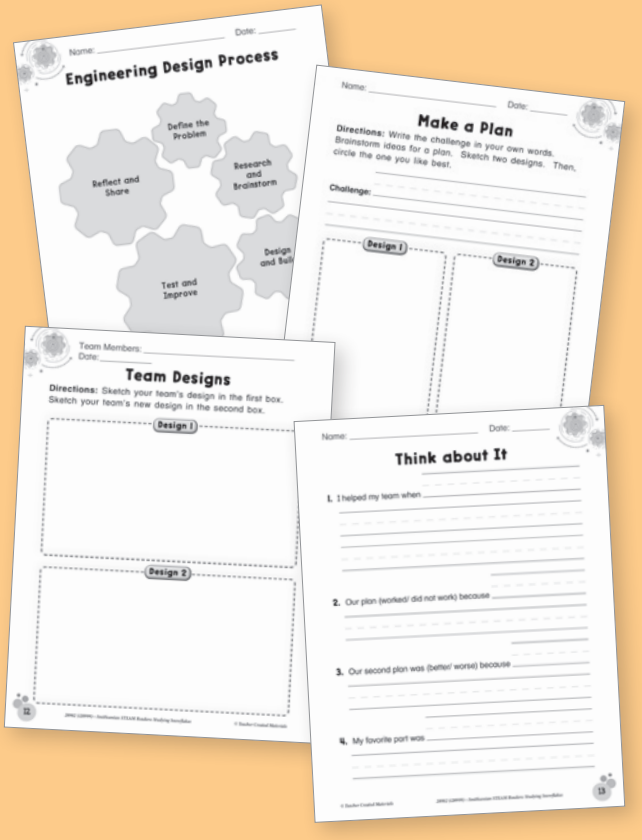
Literacy skills are supported with meaningful activities that **promote higher-order thinking skills**.



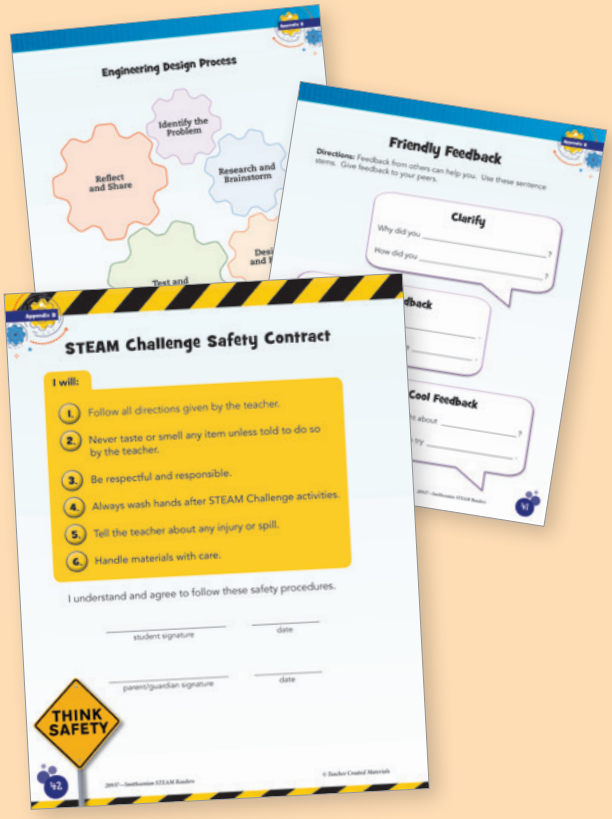
Effective feedback techniques are supported with **sentence frames** to help students provide feedback to peers and to facilitate productive classroom dialogue.



STEAM Challenge activity sheets support students throughout the **engineering design process**.



Appendix B includes quick reference sheets for students and teachers.



Assessments

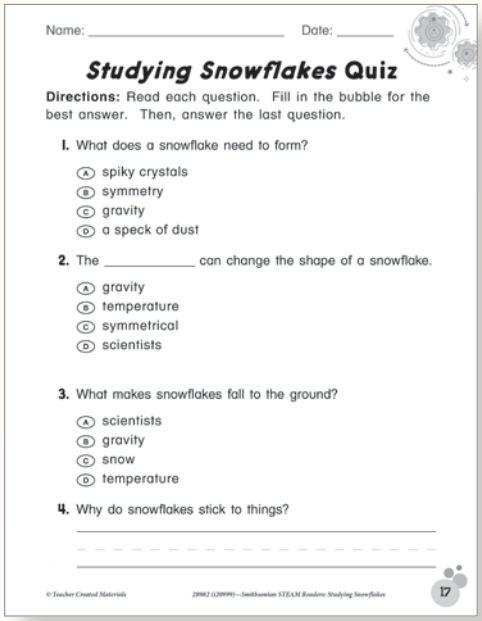
Assessments guide teacher decisions and improve student learning. *Smithsonian STEAM Readers* offers balanced assessment opportunities. Assessments require students to demonstrate analytical thinking, comprehend informational texts, and write evidence-based responses.

Quizzes

Each lesson plan includes a quiz with multiple-choice questions and a short-answer question. These assessments include text-dependent questions and may be used as open-book evaluations. Answer keys are provided on page 2 of each lesson.

STEAM Challenge

STEAM Challenges include a *Teamwork Rubric* and an *Engineering Design Process Checklist*. These guide students to reflect on and evaluate their work and collaboration skills.



Name: _____ Date: _____

***Studying Snowflakes* Quiz**

Directions: Read each question. Fill in the bubble for the best answer. Then, answer the last question.

1. What does a snowflake need to form?

- (A) spiky crystals
- (B) symmetry
- (C) gravity
- (D) a speck of dust

2. The _____ can change the shape of a snowflake.

- (A) gravity
- (B) temperature
- (C) symmetrical
- (D) scientists

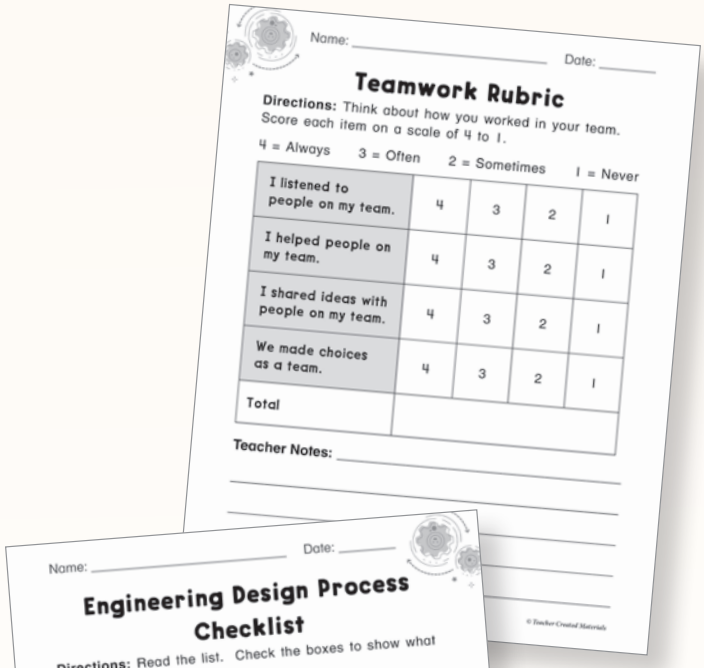
3. What makes snowflakes fall to the ground?

- (A) scientists
- (B) gravity
- (C) snow
- (D) temperature

4. Why do snowflakes stick to things?

_____

_____



Name: _____ Date: _____

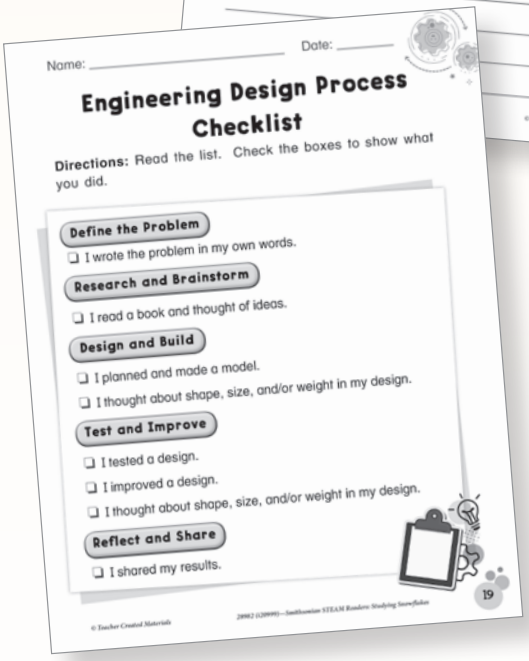
Teamwork Rubric

Directions: Think about how you worked in your team. Score each item on a scale of 4 to 1.

4 = Always 3 = Often 2 = Sometimes 1 = Never

I listened to people on my team.	4	3	2	1
I helped people on my team.	4	3	2	1
I shared ideas with people on my team.	4	3	2	1
We made choices as a team.	4	3	2	1
Total				

Teacher Notes: _____



Name: _____ Date: _____

Engineering Design Process Checklist

Directions: Read the list. Check the boxes to show what you did.

Define the Problem

❑ I wrote the problem in my own words.

Research and Brainstorm

❑ I read a book and thought of ideas.

Design and Build

❑ I planned and made a model.

❑ I thought about shape, size, and/or weight in my design.

Test and Improve

❑ I tested a design.

❑ I improved a design.

❑ I thought about shape, size, and/or weight in my design.

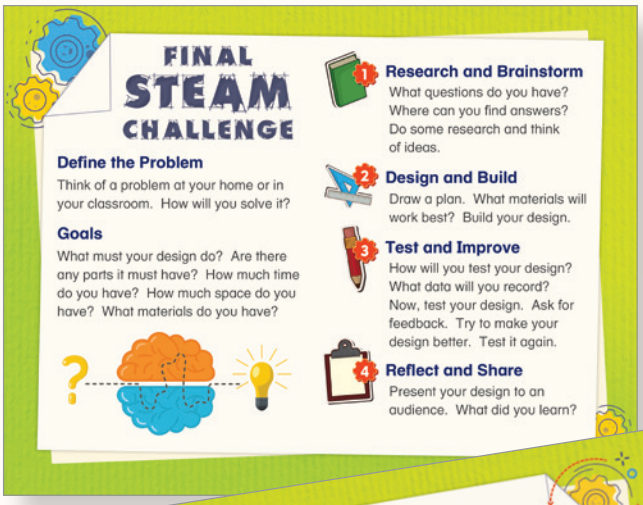
Reflect and Share

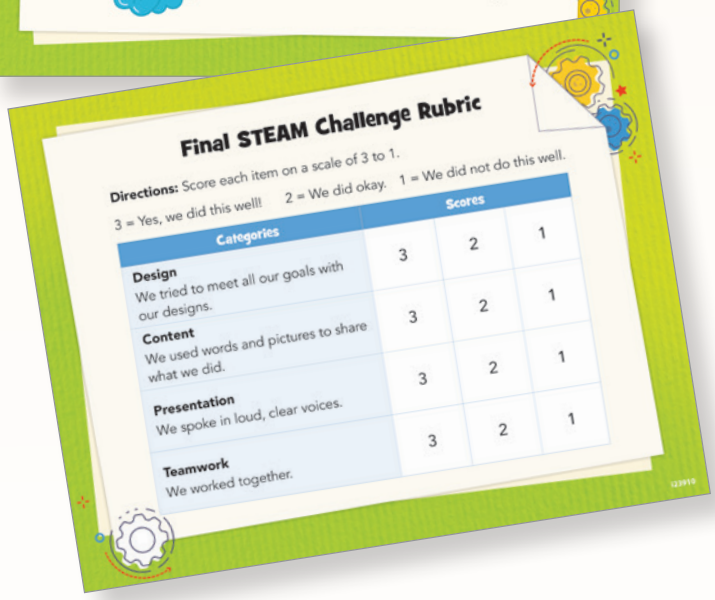
❑ I shared my results.

Assessments *(cont.)*

Culminating Activity

The Culminating Activity asks students to apply what they have learned in an engaging and interactive way. Students use what they have learned to solve real-world problems in a final STEAM Challenge.





Think and Do

Think and Do questions can be found on the inside back covers of the books. Questions require various levels of critical thinking and can be used for instruction or assessment.

Progress Monitoring

There are several points throughout each lesson when useful evaluations can be made. These evaluations can be based on group, paired, and individual discussions and activities.

Pacing and Instructional Setting Options

Smithsonian STEAM Readers is flexibly designed and can be used in tandem with a core curriculum within a science/STEAM/STEM block and/or literacy block. It can also be used in makerspaces to integrate literacy with the engineering design process. Teachers should customize pacing according to students' needs and the teacher's preferred instructional framework, such as Balanced Literacy.

***Smithsonian STEAM Readers* within the Balanced Literacy Framework**	
Modeled and Shared Reading/Writing	The Before, During, and After Reading activities in each lesson of this series offer opportunities for teachers to activate students' prior knowledge, as well as model fluency and metacognition as they read aloud from the text and guide students through reading and writing activities.
Small-Group Reading/Workshop	The During Reading, After Reading, and STEAM Challenge activities in each lesson of this series can be completed during small-group instruction, in centers, or at workstations, depending on students' previous learning experiences and their need for teacher support.
Independent Reading	Professional audio recordings, PDFs of the books, and Interactiv-eBooks are provided to support independent reading at workstations and listening centers.
Assessment	This series offers multiple formative and summative assessment opportunities that can be used to guide instruction and assess learning (see pages 20–21 for details).

The following pacing and instructional setting options show suggestions for how to use this product. Two pacing options are provided.

Option 1 includes both literacy and STEAM Challenge activities. This option spans 10 instructional days and requires approximately 30–45 minutes a day, for a total of 75–112.5 hours over the course of 150 days.

Day 1	Day 2	Day 3	Day 4	Days 5–10
Introductory and Before Reading Activities	During Reading Activity		After Reading Activity	STEAM Challenge and Assessments

Option 2 includes only literacy activities. This option spans five instructional days and requires approximately 30–45 minutes a day, for a total of 37.5–56.25 hours over the course of 75 days.

Day 1	Day 2	Day 3	Day 4	Day 5
Before Reading Activity	During Reading Activity		After Reading Activity	Assessment Activities

The Art of Shadow Puppets

Unit 3
Fun in Action

Lesson Plan

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Smithsonian STEAM Readers
Science ■ Technology ■ Engineering ■ Arts ■ Mathematics

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Standards

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References to digital components are included for educators who purchased the full kit: *Smithsonian STEAM Readers: Grade 1*. Please disregard digital component references if this lesson was purchased in a different product configuration.

Answer Key: *The Art of Shadow Puppets*

page 10—Ask and Answer Questions

Questions	Answers
Who makes and uses the puppets?	Puppeteers make puppets.
What does a puppeteer do?	They use puppets to tell stories.
Where are the puppets used?	The puppet's shadow is shown on a wall or screen.
Why are shadows used with the puppets?	They use puppets to tell stories.
When do shadow puppets work?	Shadow puppets work when light is shined on a puppet, which creates a shadow.

page 11—Once Upon a Time

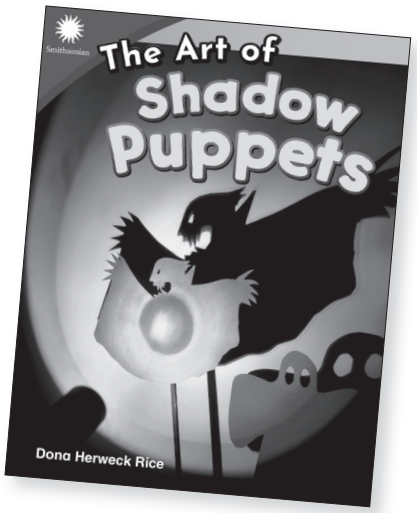
Students' sequence maps should retell the story of "The Three Little Pigs" including the following events: the pigs building their houses, the wolf blowing down the straw house, the wolf blowing down the stick house, the wolf trying to blow down the brick house, the wolf failing, and the wolf going down the chimney and running away.

page 17—*The Art of Shadow Puppets* Quiz

1. B
2. A
3. D
4. The puppets are used to make shadows that tell stories.

The Art of Shadow Puppets

Materials



- *The Art of Shadow Puppets* books
- copies of student activity sheets (pages 9–19)
- **STEAM Challenge materials include but are not limited to the following:**
  - ✓ cardboard
  - ✓ coloring tools such as crayons or pencils
  - ✓ construction paper
  - ✓ dowels, sticks, or craft sticks
  - ✓ glue
  - ✓ light source(s) such as a lamp, flashlight, or projector
  - ✓ paper
  - ✓ paper fasteners
  - ✓ sheets
  - ✓ stapler
  - ✓ tape
  - ✓ tissue paper

Learning Objective

- **Reading:** Ask and answer questions about key details in a text.
- **Writing:** Write narratives in which they recount two or more appropriately sequenced events, including some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.
- **Speaking and Listening:** Participate in collaborative conversations with diverse partners about grade appropriate topics and texts with peers and adults in small and larger groups.
- **Engineering:** Define an engineering problem, design and evaluate solutions, and optimize a design based on test results.

Phenomena

When something is placed in a path of light, it can be seen, and a shadow is created.

Lesson Timeline

Day 1	Day 2	Day 3	Day 4	Days 5–10
Introductory and **Before Reading Activities** (page 4)	**During Reading Activities** (page 5)		**After Reading Activities** (page 5)	**STEAM Challenge** and **Assessments** (pages 6–8)
Define the STEAM Challenge and review the five *W*-question words.	Research making shadows with puppets to tell stories, ask and answer questions about the text, and brainstorm design solutions.		Write plans to tell the story of "The Three Little Pigs."	Design, build, test, improve, reflect on, and perform shadow puppet plays. Complete the assessments.

The Art of Shadow Puppets (cont.)

STEAM Vocabulary

leather puppeteers
ruler screen

Introductory Activity

Define the Problem

1. Take students to the playground and find some shadows on the playground, maybe even their own. If possible, return to the playground another time of the day and observe how the shadows change.
   - If the sun is not shining on the day you choose to do this, bring a flashlight into the classroom and shine it on objects to make shadows. Discuss with students what the light source is, what the object is, and how moving the light source changes the shadow.
   - If neither option is available, display pages 4–5 in *The Art of Shadow Puppets* and discuss the shadows in the photographs.
   - Keep this part of the lesson brief. It is not meant to be the discovery part of the lesson but rather a quick introduction to get students engaged and interested in the topic.
2. Distribute *The Art of Shadow Puppets* books to students. Reveal the STEAM Challenge by reading aloud to students pages 20–21 of the book.
   - Display the Interactiv-eBook for a more digitally enhanced introduction to the challenge.
3. Distribute *Make a Plan* (page 9) to students. Have them summarize the STEAM Challenge. Summaries should include all the goals of the challenge.
   - **Support** students with the following sentence frame to help them summarize: *Design and create* _____ *to* _____.

Before Reading

1. Write the vocabulary words on the board and read each word to students. Write sentences on the board that give context clues for the vocabulary words. Have students use context clues to determine the meaning of each word. Ask students to provide a rationale as to what they think the words mean. What other words give clues? Use the sentences below or create your own.
   - Her boots are made out of *leather*.
   - The *puppeteers* used puppets to perform a show.
   - The king was the *ruler* of all the land.
   - We saw the movie on the big *screen*.
2. Tell students that good readers check for understanding as they read. They ask themselves questions about what they read and try to find answers in the text. One good way to do this is to ask and answer questions about the main topic of the text. The main topic is often the title of the book. Read the title of the book, and tell students they will practice asking and answering questions about *The Art of Shadow Puppets* as they read.
   - Hold up one hand to show five fingers. Explain that they should use the five *W*-question words (who, what, where, why, when) to ask questions and look for answers as they read.

The Art of Shadow Puppets (cont.)

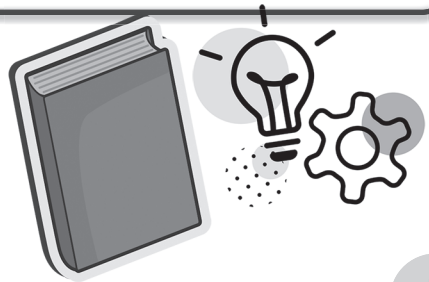
During Reading

Research and Brainstorm

1. Distribute *The Art of Shadow Puppets* books to students. Remind students of the five *W*-question words (who, what, where, why, when), and tell them they should try to find the answers to those questions as they read.
2. Read aloud the text as a group. Stop occasionally to ask students if any of the five *W* questions have been answered and discuss them.
   - Point out that they might ask and find answers to more than one question for each question word (e.g., *Who makes shadow puppets? Who made the first shadow puppet?*).
   - Display the Interactiv-eBook for a more digitally enhanced reading experience. You may wish to have students annotate the PDFs as you read.
   - Play the audio recording as students follow along to serve as a model of fluent reading. This may be done in small groups or at a listening station. The recording will help **English language learners** practice fluency and aid in comprehension.
3. Distribute *Ask and Answer Questions* (page 10) to students. Have students either write the question or the answer to complete the activity sheet. Students can work independently or in small groups.
4. Tell students that sometimes a sixth question can help ensure that they understand a text—*how?* Have students discuss *how* puppeteers use the puppets, lights, and shadows to tell their stories.
5. Have students brainstorm and discuss ideas for the STEAM Challenge with some guiding thoughts or questions (e.g., *What sizes and shapes will work best? What distance should the puppets be from the light and screen?*). Record their ideas on a sheet of chart paper.

After Reading

1. Review the vocabulary words by returning to the text and finding where each vocabulary word is used (*leather*—page 8, *ruler*—page 10, *screen*—page 12, *puppeteers*—page 13). Reread the sentences and identify any context clues in the sentences that help students make meaning.
   - Ask students the following questions: *Which word(s) are most helpful? Do the images help? How are these context clues similar to or different from the sentences in the Before Reading activity? How do they add to your understanding of each word?*
2. Review the STEAM Challenge with students. They will be creating and using shadow puppets to tell the story of "The Three Little Pigs." If needed, read a version of the story to students.
3. Distribute *Once Upon a Time* (page 11) to students. Ask them to make a plan for telling "The Three Little Pigs" in their own words. Remind them that using temporal words can help them signal the sequence of events. Six boxes are provided on the activity sheet; however, students can use additional paper to add more boxes if needed.
4. Have students orally practice telling "The Three Little Pigs" from their sequencing maps to partners. Encourage partners to provide feedback to ensure all the main events from the story are included.



The Art of Shadow Puppets (cont.)

Prep

- Review all designs prior to building.
- Prepare all materials for the STEAM Challenge.
- If doing the STEAM Challenge with multiple groups at once, you may choose to invite volunteers to help monitor and facilitate group work.

STEAM Challenge

Design and Build

1. As a group, discuss the following questions to connect the reading to the STEAM Challenge:
   - *How do puppeteers change the size of shadows?* Refer students to page 14 to remind them that the size and shape of puppets' shadows can be changed as the puppets are moved closer to or farther from the light source and screen.
   - *What puppets will you need to design and create to tell your story?* Refer students to the activity sheet *Once Upon a Time.* Have students identify which characters and settings they will need.
2. Review the STEAM Challenge on pages 20–21 together. List materials on the board, and encourage students to preview all the materials prior to making their plans.
   - If necessary, demonstrate how to use paper fasteners.
   - You can set up this challenge a few ways: with one large screen area and a fixed light position, with one screen area and the option of moving the light source or using different light sources, or with each team creating their own screen area and planning how to use it. Review your plan with students.
3. Ask students to independently sketch and label plans on their *Make a Plan* activity sheets. Their plans should include the location of puppets, people, a screen, and a light source. Encourage students to label their designs with materials.
4. Organize students into teams. Distribute one copy of *Team Designs* (page 12) to each team. Ask teams to have members share their designs. Then, have each team choose, sketch, and label a team design.
   - Review team designs and offer guidance as needed.
   - Have teams use one team member's *Once Upon a Time* activity sheet to guide their story planning. Choose for them, if necessary.
5. Explain to students that they must follow their design plans when they build their puppets. Reassure them that they will have an opportunity to change and improve their designs after they present them. Review classroom expectations for working with materials. Then, give teams time to gather materials and build their shadow puppets and theaters.
   - Remind students to plan how the story will be told (with no sound, with a narrator, or with character voices).
   - Provide students access to the screen and light source to practice how the puppet performance will take place (optional).
6. Distribute *Think about It* (page 13) to each student. Explain that reflection is an important part of the engineering design process. Read aloud number 1 on the activity sheet and have students write their responses. Ask volunteers to share.

The Art of Shadow Puppets (cont.)

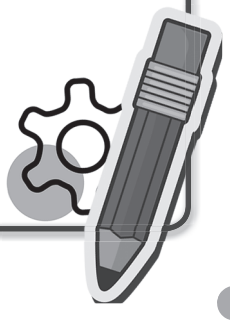
Prep

- Review all designs prior to building.
- Prepare all materials for the STEAM Challenge.

STEAM Challenge

Test and Improve

1. As a group, discuss the following questions to connect the reading to the STEAM Challenge:
   - *How do puppeteers get the puppets to move?* Refer to page 16 in the book to reference how puppets can be designed with moving parts. Encourage students to think about how well their puppets move as they test them and how they might improve them.
   - *How do the images in the book show puppeteers working together?* Display pages 16–17 from the text, and guide students to notice how important it is for puppeteers to work together to tell their stories.
2. Gather teams for testing. Explain that teams will offer feedback after the test. Use *Friendly Feedback* (page 14) to review best practices for giving feedback.
3. Distribute *Puppet Performance Test Results* (page 15) to students, and ask them to record results for each team.
4. Explain that one team at a time will perform. Allow the team to set up the screen and light source so the shadows fall the way the team wants them to. Encourage the team to speak loud enough for the rest of the group to hear. Remind the rest of the groups of appropriate audience manners as they watch the performance. Ask volunteers to provide feedback.
5. Provide time for teams to brainstorm ways to improve their designs based on their performances and feedback. Distribute a second copy of *Team Designs* to each team. Ask them to sketch their improved designs and explain any changes.
   - Review improved designs and offer guidance as needed.
   - **Challenge** students to consider how using translucent materials (wax paper, tissue paper, etc.) would change how their puppets look and have them try it.
6. Have teams gather materials to improve their designs. Then, have them make their improvements and retest their shadow puppets.
7. Have students complete numbers 2 and 3 on their *Think about It* activity sheets.



The Art of Shadow Puppets (cont.)

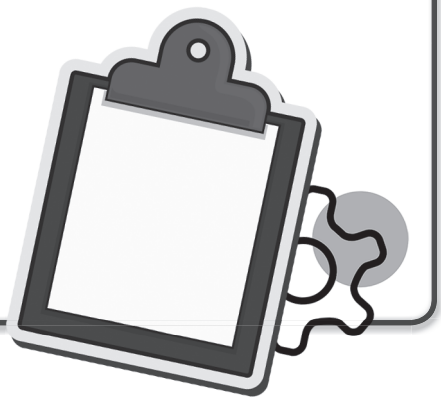
STEAM Challenge

Reflect and Share

1. Ask half the group to form an outward-facing circle. Then, have the other half form a circle facing the other, creating inner and outer circles.
2. Have students reflect on their STEAM Challenge experiences by discussing what was challenging when they planned and performed their stories and what they enjoyed most. Have students discuss their responses with the person in front of them. Ring a bell or give students a signal for the outside circle to rotate one person to the left. Repeat this activity two more times so each person has had a chance to share with three different peers.
3. Have students complete number 4 on their *Think about It* activity sheets.
4. Distribute *Engineering Design Process* (page 16) to students, and review how they used each step to complete the challenge. Annotate the infographic together with details specific to this challenge.
5. Read "Career Advice" on page 24 of the book. Ask students to brainstorm other tips for a career as a shadow puppeteer.

Assessment Activities

1. Have students complete a short posttest, *The Art of Shadow Puppets Quiz* (page 17), to assess this lesson's reading objective.
   - Students may use the Interactiv-eBook activities in the Digital Resources for assessment purposes (optional).
2. Have students complete *Teamwork Rubric* (page 18) and *Engineering Design Process Checklist* (page 19) to reflect on and evaluate their work and collaboration skills.
3. Have students complete the Think and Do questions from the book.



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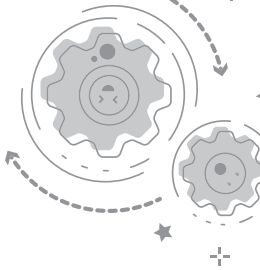


Make a Plan

Directions: Write the challenge in your own words. Draw a plan for the theater set-up. Draw a design for your puppets.

Challenge: _____

_____

_____

_____

Design 1

Design 2

Name: _____ Date: _____

Ask and Answer Questions

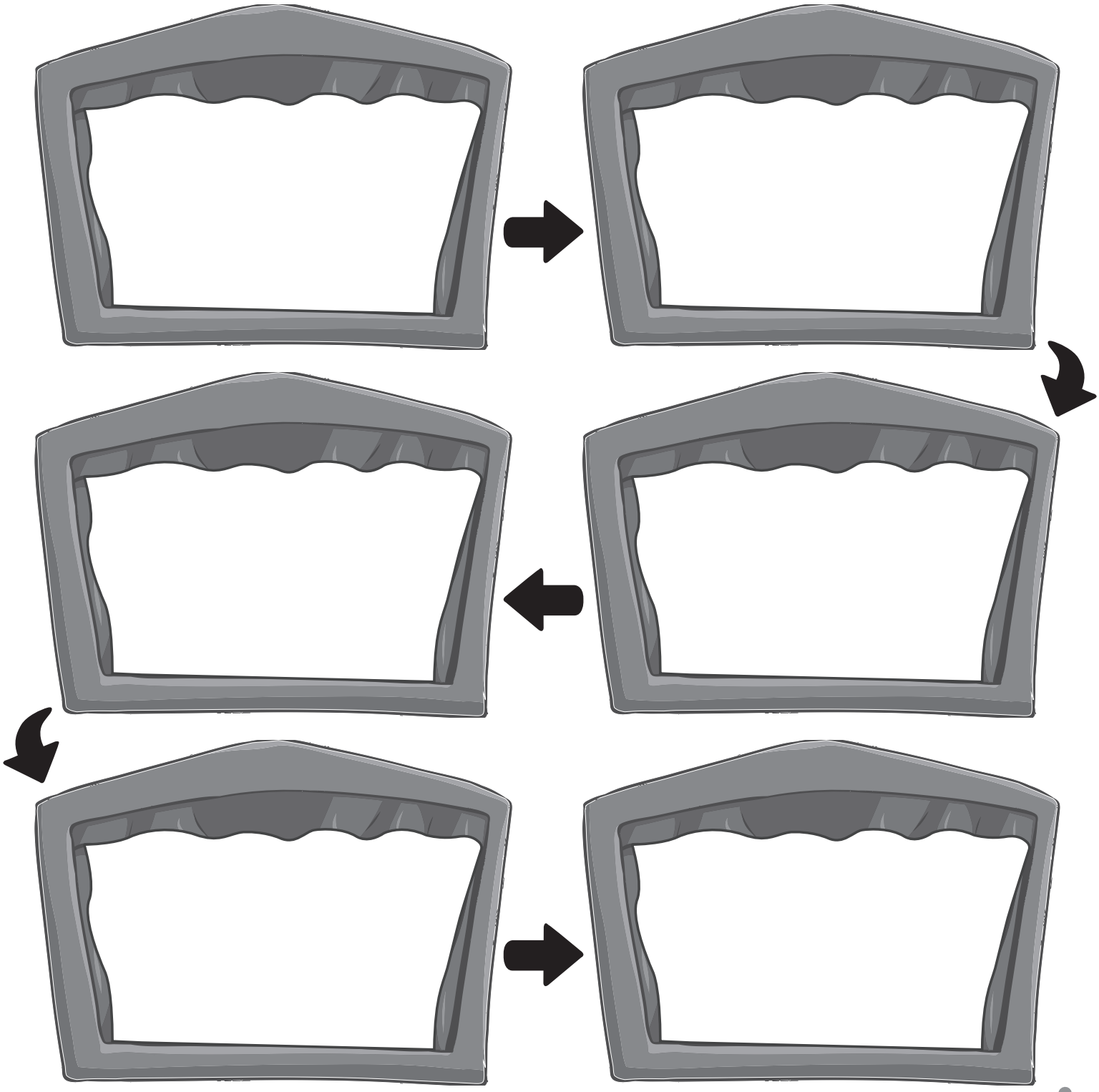
Directions: Fill in the missing boxes. Write a question for each answer. Write an answer for each question.

Questions	Answers
Who?	Puppeteers make puppets.
What? What does a puppeteer do?	
Where?	The puppet's shadow is shown on a wall or screen.
Why?	They use the puppets to tell stories.
When? When do shadow puppets work?	

Name: _____ Date: _____

Once Upon a Time

Directions: Plan a puppet show. Retell the story of "The Three Little Pigs." Write or draw the story.



Team Members: _____

Date: _____

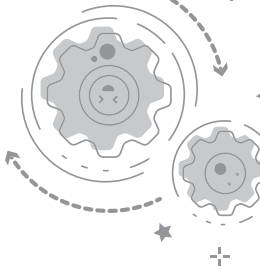
Team Designs

Directions: Sketch your team's theater set-up in the first box. Sketch at least one puppet in the second box. Try to show how it will move.

Theater Set-Up

Puppets

Name: _____ Date: _____



Think about It

1. I helped my team when _____

2. Our plan (worked/did not work) because _____

3. Our second plan was (better/worse) because _____

4. My favorite part was _____

Name: _____ Date: _____

Friendly Feedback

Directions: Feedback from others can help you. Use these sentence stems. Give feedback to your peers.

Clarify

Why did you _____?

How did you _____?

Warm Feedback

I like _____ because _____.

_____ is a good idea because _____.

Cool Feedback

Have you thought about _____?

You might want to try _____.

Name: _____ Date: _____

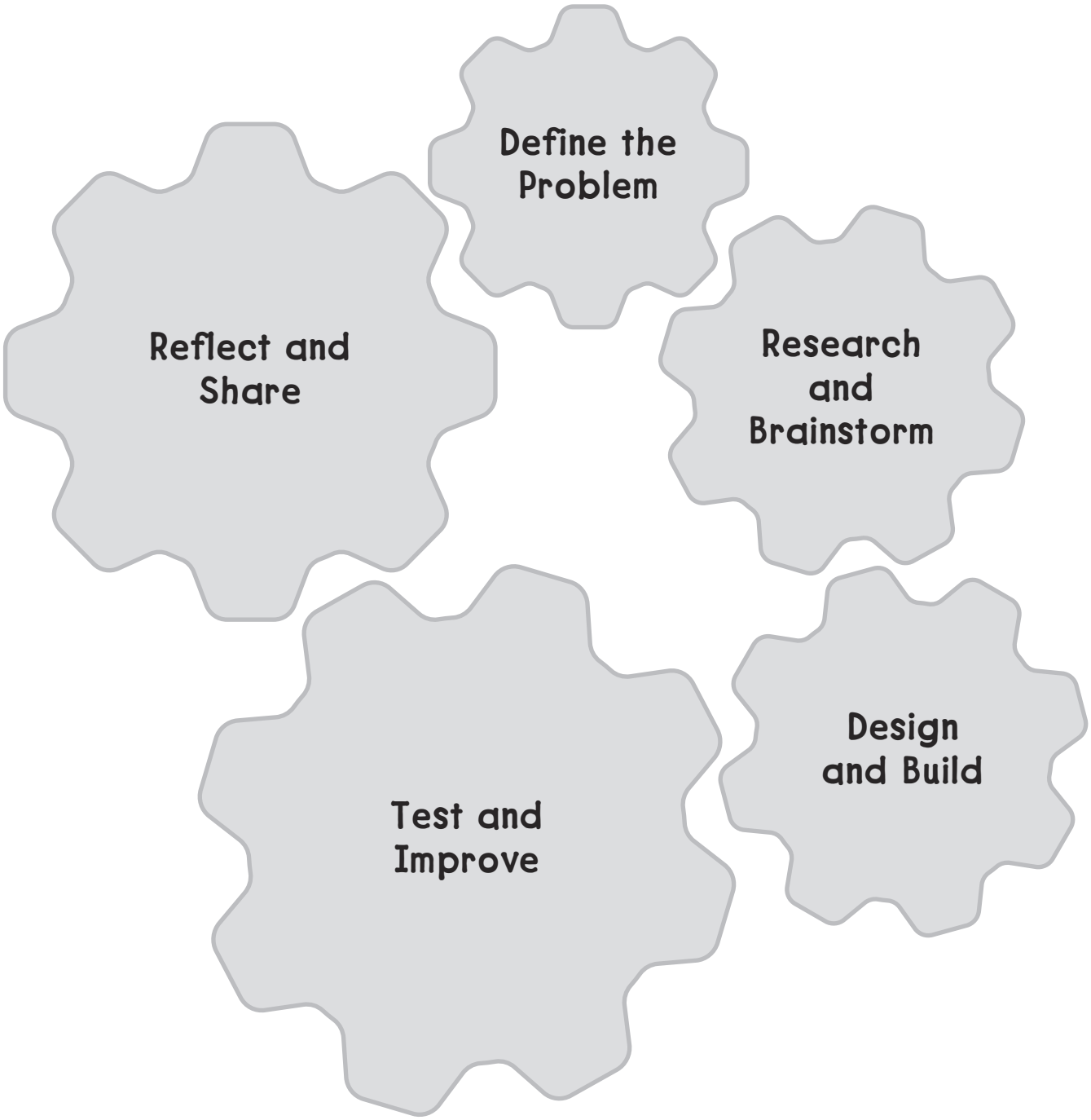
Puppet Performance Test Results

Directions: Watch each team's show. Answer the questions for each show. Use words or pictures for the last column.

Team	Was it easy to see?	Did the puppets move?	How did the puppets move?
	yes no	yes no	
	yes no	yes no	
	yes no	yes no	
	yes no	yes no	
	yes no	yes no	

Name: _____ Date: _____

Engineering Design Process



Name: _____ Date: _____

The Art of Shadow Puppets Quiz

Directions: Read each question. Fill in the bubble for the best answer. Then, answer the last question.

1. Shadows are made when you _____ light.

- (A) shape
- (B) block
- (C) hold
- (D) turn off

2. Where do you see the shadows?

- (A) a wall or screen
- (B) a stage
- (C) a puppeteer
- (D) a piece of leather

3. How do shadow puppets move?

- (A) They are on wheels.
- (B) A machine moves them.
- (C) The light moves them.
- (D) People move them.

4. What are shadow puppets used for?

_____

_____

_____

_____

Name: _____ Date: _____

Teamwork Rubric

Directions: Think about how you worked in your team. Score each item on a scale of 4 to 1.

4 = Always 3 = Often 2 = Sometimes 1 = Never

 **I listened to people on my team.**	4	3	2	1
 **I helped people on my team.**	4	3	2	1
 **I shared ideas with people on my team.**	4	3	2	1
 **We made choices as a team.**	4	3	2	1
Total				

Teacher Notes: _____

_____

_____

_____

_____

Name: _____ Date: _____

Engineering Design Process Checklist

Directions: Read the list. Check the boxes to show what you did.

Define the Problem

- ❑ I wrote the problem in my own words.

Research and Brainstorm

- ❑ I read a book and thought of ideas.

Design and Build

- ❑ I planned and made a model.
- ❑ I thought about shape, size, and/or weight in my design.

Test and Improve

- ❑ I tested a design.
- ❑ I improved a design.
- ❑ I thought about shape, size, and/or weight in my design.

Reflect and Share

- ❑ I shared my results.

STEAM CHALLENGE

The Problem

A group of shadow puppeteers was on its way to your school. But they got lost! Your teacher wants your class to fill in for them. Can you make shadow puppets to tell the story of “The Three Little Pigs”?

The Goals

- Design shadow puppets to tell the story.
- Design a theater and a screen for your show.
- Design where you will place lights based on how you want your shadows to look.

Research and Brainstorm

What do you need to create shadows? How close to the screen should you hold the puppets? What about the light?

Design and Build

Draw your plan. How will it work? What materials will you use? Build your model!

Test and Improve

Perform your show. Can the audience see it? Are you blocking any shadows? Can you make it better? Try again.

Reflect and Share

How well did you show and tell your story? What if you used the shadows of real people instead of puppets? What would happen if you moved the lights?

Smithsonian

The Art of Shadow Puppets

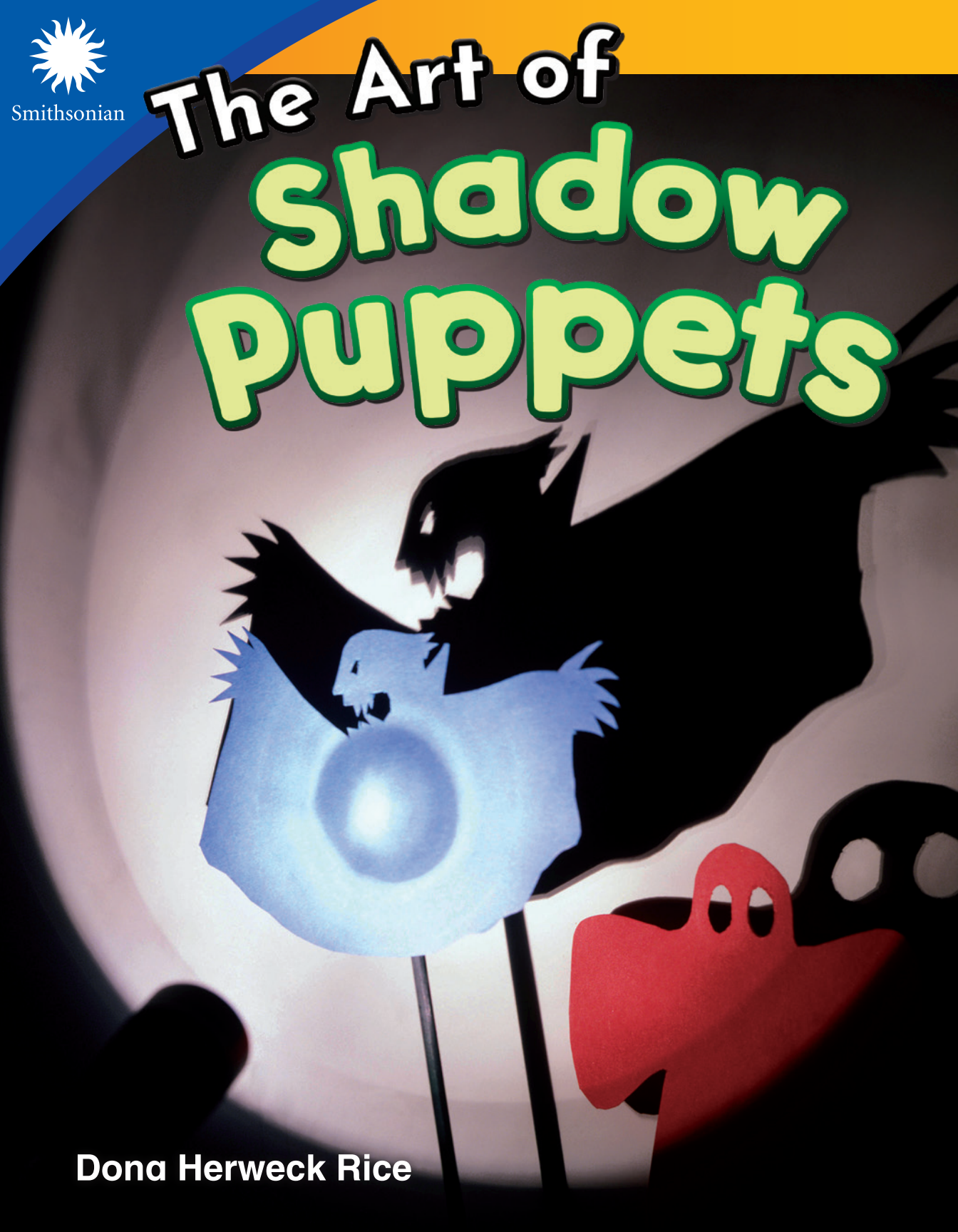


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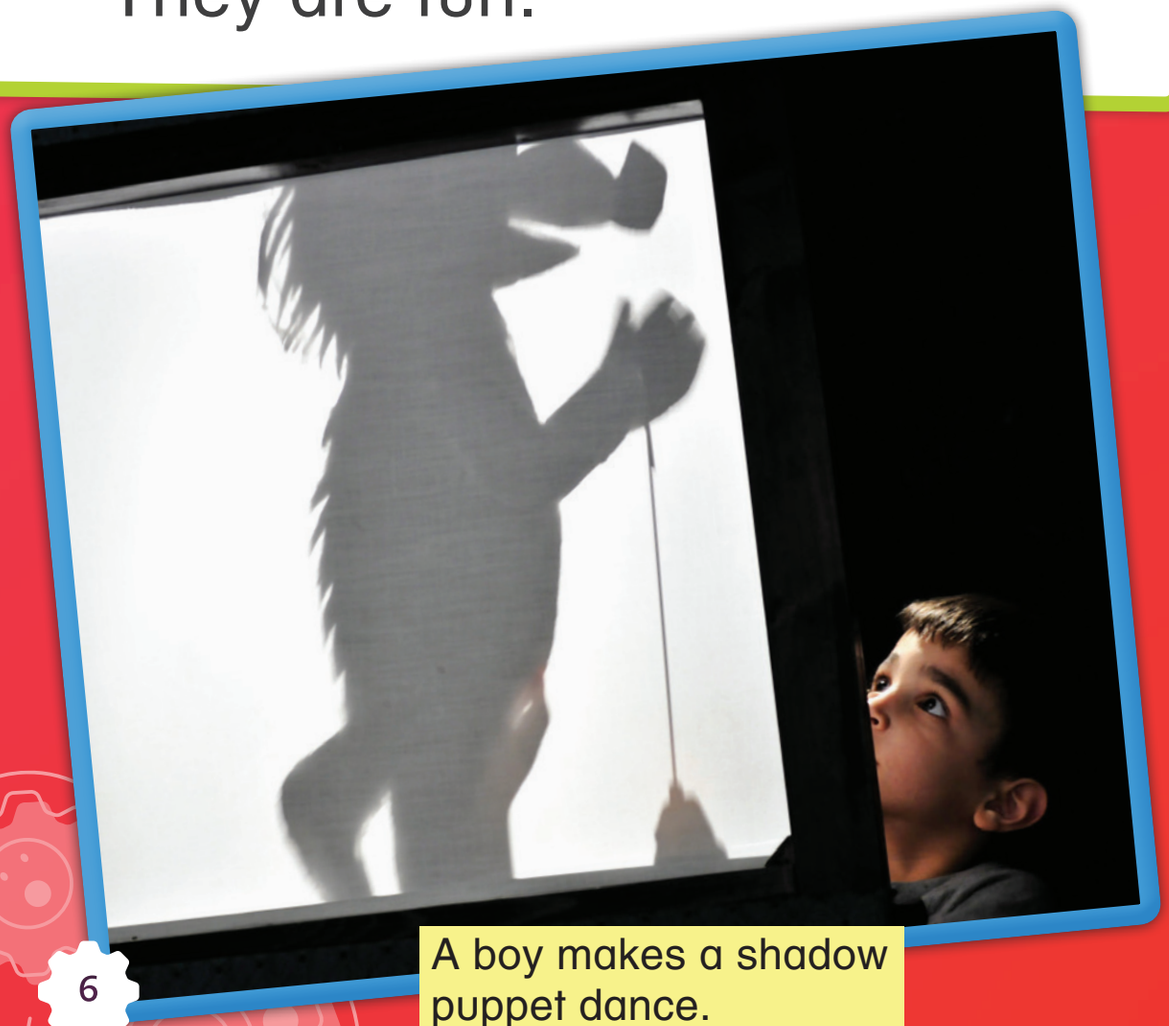
Table of Contents

In the Shadows

Most things can have shadows. Shadows are made when people or things block light.

Shadow Puppets

Shadow puppets are used to tell stories. They can move with music. They can dance too. They are fun.



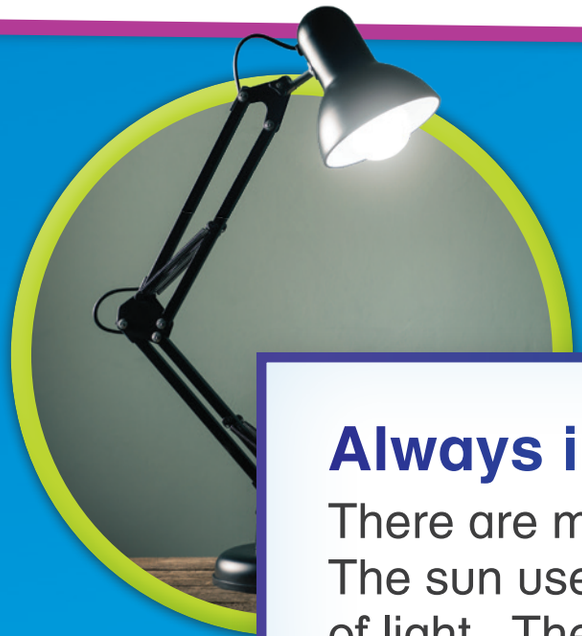
A boy makes a shadow puppet dance.

Science & Arts

My Shadow and Me

Shadows change when lights or objects move. Have a friend trace your shadow outside. Later, stand in the same place. The sun has moved, so your shadow will change too!

Shadow puppets are a very old art form. People in Asia were the first to make them. They made them from paper or **leather**. They moved them to tell stories.



Technology

Always in the Light

There are many types of lights. The sun used to be the only source of light. Then came fire. Now, we can have light when we want it.

This man in China shows his shadow puppets.

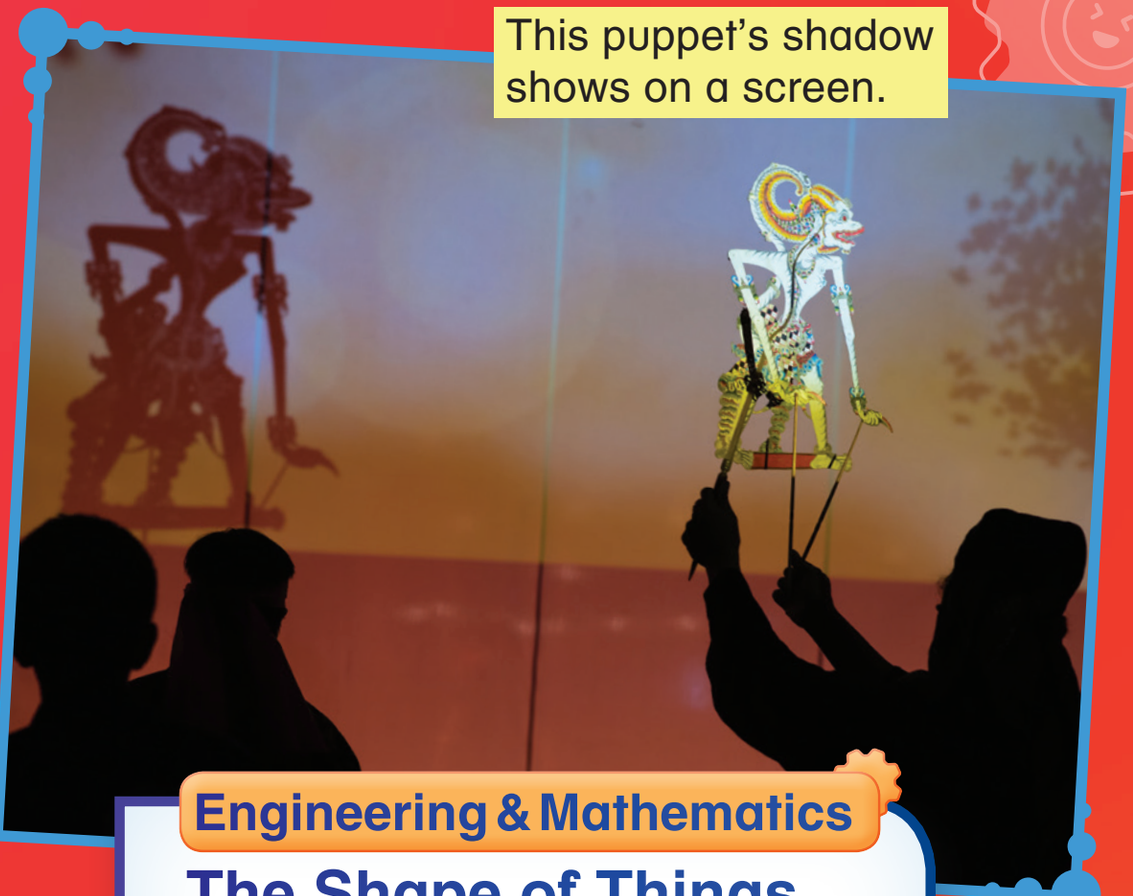
There is an old story from China. A **ruler** there loved a woman who died. His friend made a shadow puppet of the woman. It cheered up the ruler. This may have been the first shadow puppet.

ruler Wudi of China

Puppet Magic

Shadow puppets are made with light and shadow. Light is shined on a puppet. The puppet blocks part of the light. That makes a shadow on a wall or **screen**.

These people watch shadow puppets on a screen.



This puppet's shadow shows on a screen.

Engineering & Mathematics

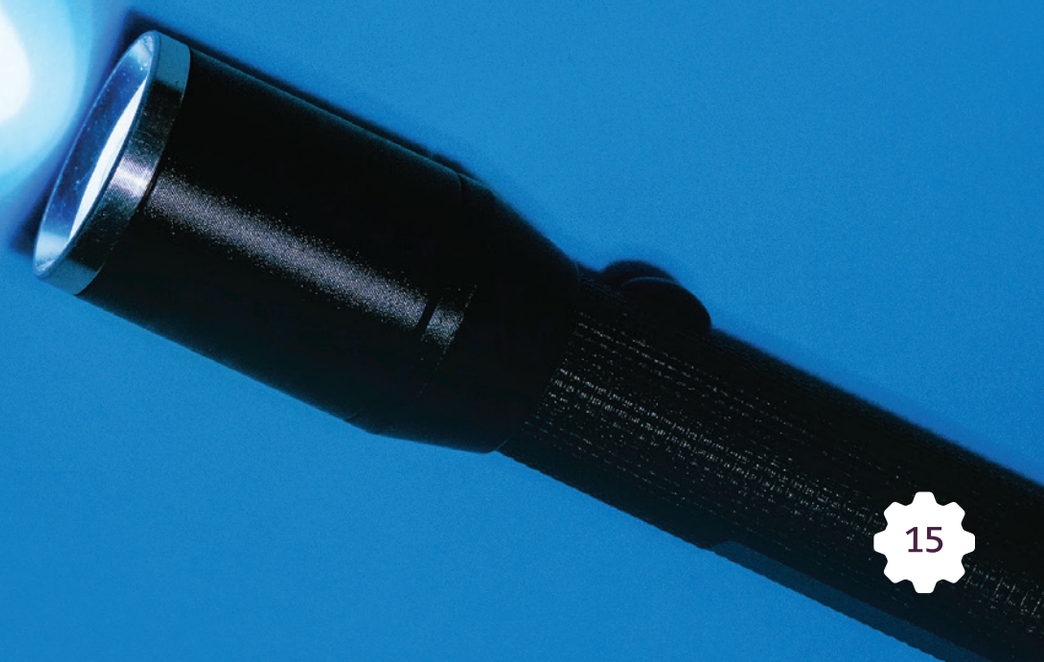
The Shape of Things

Puppeteers can move puppets closer to the light to make shadows look bigger. Moving puppets farther from the light makes shadows look smaller.

Light is shined from behind a screen onto a puppet. Or, it is shined on a puppet in front of a screen. The puppet is seen in shadow on the screen. Its size and shape change as it is moved.

This light is shined on a puppet behind a screen.

This light is shined on a puppet in front of a screen.



Many people can hold puppets at the same time. They can tell big stories in this way. They can move parts on the puppets as well. The puppets may seem alive when they do!

This puppet's arms can move.

More to Tell

Puppeteers know all about shadows. They use them to tell stories.

There are even more stories to tell. Just look! They are waiting in the shadows.

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Glossary

leather

ruler

puppeteers

screen

Career Advice
from Smithsonian

Do you want to be a shadow puppeteer? Here are some tips to get you started.

"You can tell many stories with puppets. Make up your own story. Create puppets that will help you tell your story. Use your imagination!" ***—Diane Kidd, Illustrator and Museum Educator***

"Ask questions and talk to people. Learn new things, and you will be a great artist!" ***—Emily Key, Education Programs Manager***

Think and Do

1. What is a shadow?

2. Where do you think shadows go in the dark?