



# artsNOW

Integrated learning solutions

## EXPLORING LIFE SCIENCE THROUGH SHADOW PUPPETS

Grade Band: 2-3

Content Focus: Visual Arts & Science



### LEARNING DESCRIPTION

In this lesson, students will use the design process to plan, experiment, refine, and create shadow puppets that illustrate a life science concept. The lesson will conclude with a shadow puppet performance that showcases their concept.

### LEARNING TARGETS

Essential Questions	"I Can" Statements
How can shadow puppetry be used to demonstrate concepts in life science?	<p>I can demonstrate a life science concept I am learning about through puppetry.</p> <p>I can create a shadow puppet using the materials and design I planned.</p>

### GEORGIA STANDARDS

Curriculum Standards	Arts Standards
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<p><b>Grade 2</b> S2L1. Obtain, evaluate, and communicate information about the life cycles of different living organisms.</p> <p><b>Grade 3</b> S3L1. Obtain, evaluate, and communicate information about the similarities and differences between plants, animals, and habitats found within geographic regions (Blue Ridge Mountains, Piedmont, Coastal Plains, Valley and Ridge, and Appalachian Plateau) of Georgia.</p>	<p><b>Grade 2</b> VA2.CR.1 Engage in the creative process to generate and visualize ideas by using subject matter and symbols to communicate meaning.</p> <p>VA2.CR.3 Understand and apply media, techniques, processes, and concepts of two dimensional art.</p> <p><b>Grade 3</b> VA3.CR.1 Engage in the creative process to generate and visualize ideas by using subject matter and symbols to communicate meaning.</p> <p>VA3.CR.3 Understand and apply media, techniques, processes, and concepts of two dimensional art.</p>
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## SOUTH CAROLINA STANDARDS

Curriculum Standards	Arts Standards
<p><b>Grade 2</b> 2-LS2-1. Plan and conduct an investigation to determine what plants need to grow.</p> <p>2-LS2-2. Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.</p> <p><b>Grade 3</b> 3-LS1-1. Develop and use models to describe how organisms change in predictable patterns during their unique and diverse life cycles.</p> <p>3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can thrive, struggle to survive, or fail to survive.</p>	<p><b>Anchor Standard 1:</b> I can use the elements and principles of art to create artwork.</p> <p><b>Anchor Standard 2:</b> I can use different materials, techniques, and processes to make art.</p> <p><b>Anchor Standard 7:</b> I can relate visual arts ideas to other arts disciplines, content areas, and careers.</p>

## KEY VOCABULARY

Content Vocabulary	Arts Vocabulary
<ul style="list-style-type: none"> <li>• <u>Shadow</u> - A dark area that forms when an object blocks light</li> </ul>	<ul style="list-style-type: none"> <li>• <u>Shadow puppet</u> - A shadow puppet is a form of storytelling where cut-out figures are manipulated behind a screen to create shadowy images visible to the</li> </ul>



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- Light - A form of energy that travels in waves and can be seen by our eyes
- Design process - A process of revising work
- Life cycles - The series of stages that an organism goes through during its lifetime, from birth or germination to death or decay
- Habitats - Specific places where organisms live and find the resources they need to survive, such as food, water, shelter, and space
- Pollination - The process by which pollen is transferred from the male part (anther) of a flower to the female part (stigma) of the same or another flower

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- Shape - One of the seven Elements of Art; a two-dimensional figure
- Silhouette - The outline or shape of an object or person that appears dark against a lighter background
- Contrast - One of the Principles of Design; the difference between two visual elements put side by side

## MATERIALS

- Overhead projector or flashlight
- White sheets or large sheet of white paper
- Cardstock or stiff paper
- Scissors
- Tape or glue
- Variety of translucent, transparent, and opaque materials (e.g., tissue paper, cellophane, cardboard, plastic sheets)
- Brads
- Hole punch or awl
- Bamboo skewers/popsicle sticks
- Masking tape

## INSTRUCTIONAL DESIGN

### Opening/Activating Strategy

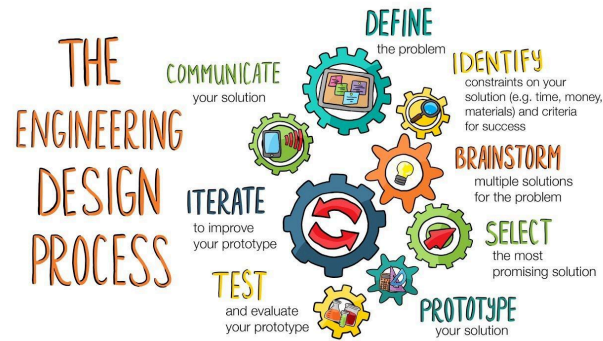
- Introduce the concept of shadow puppetry and its history by watching a short video or demonstration of shadow puppet storytelling (Video: [Introduction to Shadow Puppetry](#); Video: [The Three Little Pigs](#)).
- Ask students to make observations on how the puppets looked and how that differs from other puppets they may have seen.
  - Discuss silhouettes and contrast.

### Work Session



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- Tell students that they will be creating shadow puppets that demonstrate one of the life science concepts they are learning about, such as life cycles.
- Introduce the design process by showing students the image below.
  - Explain to students that artists use this process to revise and improve their artwork; students will use this process in planning, designing and creating their puppets.



- Divide students into small groups. Assign each group a life science concept.
- Remind students that in a shadow puppet performance, there are characters that tell a story. Ask students to identify who the “characters” will be in their life science concept.
- Allow students time to brainstorm and sketch out their plans for their shadow puppet characters. Circulate and assist students with their designs.
- Introduce the materials students will use to create shadow puppets (cardstock, scissors, tape, brads, colored theater gels, bamboo skewers) and demonstrate how to use them safely to create their shadow puppets.
  - *Optional: Show students a video of how to make shadow puppets (Video: [How to Make Shadow Puppets | Full-Time Kid | PBS](#)).*
  - As students begin creating their puppets, remind them of the design process. They may need to revise their designs as they translate their sketch to their puppet.
- After creating their shadow puppets, students will collaborate with their groups to plan their performances.
  - Remind students that in a shadow puppet performance, there will be a beginning, middle, and an end. Ask students to consider what the beginning, middle, and end should be in their life science concept.
- Provide time for groups to practice and refine their performances before presenting to the class.

### Closing/Reflection

- Groups will present their shadow puppets to the class. Model how to celebrate students' creativity and teamwork in presenting.
- Facilitate a discussion that focuses on how students demonstrated the life science concept through their shadow puppet performance.
- At the end of the lesson, have students complete a 3-2-1 ticket out the door—three things they learned, two things they found interesting, and one question that they have. Provide time for students to share with a partner, small group, or the class.

## ASSESSMENTS



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## Formative

Teacher will assess student learning by:

- Observing students' engagement and participation in the activator.
- Checking students' understanding of life science concepts through questioning and discussions.
- Providing feedback on students' initial puppet designs to guide them in the revision process.
- Reviewing students' 3-2-1 tickets out the door.

## Summative

### CHECKLIST:

- Students can demonstrate a concept in life science through a shadow puppet performance.
- Students can use creativity to design and create shadow puppets that demonstrate a concept in life science.

## DIFFERENTIATION

### Accelerated:

- Students can create a backdrop for their shadow puppet show to enhance their storytelling.
- Allow students to explore the history and significance of shadow puppetry in different cultures around the world.
- Students can write a sequence of events to explain/narrate their performances.

### Remedial:

- Provide students with pre-cut materials for students to assemble to create their shadow puppets.
- Provide a sequencing guide or graphic organizer for students to plan their performances.

## ADDITIONAL RESOURCES

- Video: [Introduction to Shadow Puppetry](#)
- Video: [How to Make Shadow Puppets | Full-Time Kid | PBS](#)
- Video: [How to Make Shadow Puppets](#)
- Video: [How To Make Shadow Puppets Using the Cricut Maker](#)
- Video: [How to Create Puppets with the Glowforge](#)
- Video: [The Legend of the Chinese Zodiac](#)
- Video: [The Three Little Pigs](#)



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*\*This integrated lesson provides differentiated ideas and activities for educators that are aligned to a sampling of standards. Standards referenced at the time of publishing may differ based on each state's adoption of new standards.*

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