



artsNOW

Integrated learning solutions

EARTH SYSTEMS, ENVIRONMENT & CONSERVATION THROUGH MOVEMENT

Grade Band: 2-3

Content Focus: Dance & Science



LEARNING DESCRIPTION

In this lesson, students will understand how choreographers use performance as a platform for communicating concepts. By creating their own choreography, students will learn and teach their classmates about the scientific concepts they are investigating in class.

LEARNING TARGETS

Essential Questions	"I Can" Statements
<p>How and why do choreographers create dances to inform audiences about important issues?</p> <p>How can I demonstrate my understanding of scientific concepts through choreography and movement?</p>	<p>I can use performance as a platform to inform audiences about important issues.</p> <p>I can create a choreographic work about scientific concepts.</p>



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GEORGIA STANDARDS

Curriculum Standards	Arts Standards
<p>Grade 2 S2E3. Obtain, evaluate, and communicate information about how weather, plants, animals, and humans cause changes to the environment.</p> <p>Grade 3 S3L2. Obtain, evaluate, and communicate information about the effects of pollution (air, land, and water) and humans on the environment.</p>	<p>Grade 2 ESD2.CR.1 Demonstrate an understanding of the choreographic process.</p> <p>ESD2.CR.2 Demonstrate an understanding of dance as a form of communication.</p> <p>ESD2.PR.1 Identify and demonstrate movement elements, skills, and terminology in dance</p> <p>ESD2.RE.1 Demonstrate critical and creative thinking in dance.</p> <p>Grade 3 ESD3.CR.1 Demonstrate an understanding of the choreographic process.</p> <p>ESD3.CR.2 Demonstrate an understanding of dance as a form of communication.</p> <p>ESD3.PR.1 Identify and demonstrate movement elements, skills, and terminology in dance</p> <p>ESD3.RE.1 Demonstrate critical and creative thinking in dance.</p>

SOUTH CAROLINA STANDARDS

Curriculum Standards	Arts Standards
<p>Grade 2 2-ESS1-1. Use information from several sources to provide evidence that Earth events can occur rapidly or slowly.</p> <p>2-ESS2-1. Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.</p> <p>Grade 3 3-ESS2-2. Obtain and combine information to describe climate patterns in different regions of the world.</p>	<p>Anchor Standard 1: I can use movement exploration to discover and create artistic ideas and works.</p> <p>Anchor Standard 2: I can choreograph a dance.</p> <p>Anchor Standard 3: I can perform movements using the dance elements.</p> <p>Anchor Standard 7: I can relate dance to other arts disciplines, content areas, and careers.</p>



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3-ESS3-1. Make a claim about the effectiveness of a design solution that reduces the impacts of a weather related hazard.

KEY VOCABULARY

Content Vocabulary	Arts Vocabulary
<ul style="list-style-type: none">● <u>Weather</u> - The atmospheric conditions present in a particular place at a specific time● <u>Climate</u> - The long-term patterns and averages of weather conditions in a particular region over a significant period● <u>Environment</u> - The surroundings or conditions in which an organism, species, or ecosystem exists and interacts● <u>Pollution</u> - The introduction of harmful substances or contaminants into the environment, causing adverse effects on living organisms, natural resources, and ecosystems	<ul style="list-style-type: none">● <u>Choreographer/Choreography</u> - The art of designing and arranging sequences of movements, steps, and gestures to create a dance piece● <u>Levels</u> - The vertical positioning of the dancer's body in relation to the floor (high, mid, low)● <u>Shape</u> - The visual configuration or arrangement of the dancer's body or limbs in space● <u>Tempo</u> - The speed or pace of the music to which dancers perform● <u>Energy</u> - The quality, intensity, and dynamic force behind movement● <u>Pathway</u> - The route that a dancer's movement takes through space; it can encompass the direction, shape, and pattern of movement as the dancer moves across the performance space

MATERIALS

- Dance/piece of choreography to watch (see examples in “Additional Resources”)
- Music
- Poetry/text (optional)

INSTRUCTIONAL DESIGN

Opening/Activating Strategy

- Using vocabulary from the current unit of study in science, ask students to show a movement to represent a vocabulary word or idea. Ask students to explain why they chose their movement and how/why that movement would represent the definition/idea to an audience.



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- Tell students that choreographers are like authors except they don't use words and pictures to help the audience understand what they are communicating.
 - Instead, they use their bodies and movement to teach the audience about the concept.
 - Creating choreography about science is just like an author writing an informational text; our dance must inform the audience through movement.

Work Session

- Watch a piece of choreography about an earth system or the environment/conservation (see “Additional Resources”).
- Discuss choreographic choices/movements used to express thoughts and ideas to the audience.
 - Lead students in a movement exercise to introduce them to the following dance terms: Levels, shape, tempo, energy, and pathways.
 - Prompt students to make shapes with their bodies to express the words that they hear, such as tree, rock, circle, etc.
 - Next, have students explore pathways. Tell students that pathways are the route that a dancer's movement takes through space. Ask students to begin traveling through the room, moving from place to place, as you prompt them with different body shapes. Encourage students to think about how they can link their movements together fluidly.
 - Ask students to freeze in place. Bring students' attention to levels (high, mid, low) with movements such as stretching up high and moving on tiptoes, crouching in a small ball close to the floor, and bouncing in place at a middle level. Say words such as river, mountain, and valley. Ask students to explore body shapes at the level that they think best expresses that idea.
 - Now, direct students to explore energy variations with different movement qualities such as sharp movements—quick, precise actions like punches or snaps, and smooth movements—slow, flowing actions like waves or circles with arms. Prompt students with weather-related words like hail, ice, sunshine, etc.
 - Look at the dance performance again. Ask students where they see examples of these elements in the choreography. Ask students what the choreographer communicated by using the concept.
- Tell students that they now will explore movement ideas to represent scientific concepts.
 - Ask students to share a term from the unit, such as water pollution.
 - As a class, choreograph a movement phrase to show a concept, such as water pollution. Ask students to think about what shapes they should make with their bodies? What pathways? What type of energy? Levels?
 - Allow time for students to brainstorm. Create and perform the movement phrase as a class.
- Arrange students into small groups. Assign each group a topic related to the current unit of study in science.
- Tell students that they will be creating choreography about their assigned topic. Remind students that as choreographers, it is their job to communicate a concept through movement.
 - Remind students that choreographers use levels, shape, tempo, energy, and pathways intentionally to communicate with the audience. Ask students to select one or two that they will use in their choreography.



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- Tell students that their choreography must have at least three movements showing a beginning, middle, and end.
- Circulate the room to work with students as they create their choreography.
- Have students share their choreography with the class.
 - The audience members should describe what they observed in the group's choreography using both science and dance vocabulary.
 - Ask students to explain how the choreography choices contributed to the meaning of the dance.

Closing/Reflection

- Using the elements of dance as a guide, ask students how their choreographic choices helped the audience understand the content. This can be a written or oral reflection.

ASSESSMENTS

Formative

Teacher will assess students by asking students about their choreographic choices and how they aid in the audience's understanding of the scientific concept.

Summative

CHECKLIST

- Choreography:
 - Students can create choreography that has a beginning, middle, and end.
 - Students can create choreography that correctly demonstrates scientific concepts and vocabulary.
 - Students can intentionally use one or two of the elements of dance to communicate their scientific concept.
- Audience:
 - Students can discuss the performances of the other groups and identify how movements demonstrate scientific concepts and vocabulary.

**This assessment can be done as a class discussion or a written assignment.*

DIFFERENTIATION

Accelerated:

- Increase the expectations of the full choreographic work. Each part (beginning/middle/end) contains more than one movement idea.
- Have students research an environmental concern and create a choreographic work to demonstrate its causes and effects.

Remedial: Have students create choreography for just one vocabulary word from the unit of study.



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ADDITIONAL RESOURCES

- [Julia Roberts is Mother Nature](#)
- [Prince Ea's Dear Future Generations: Sorry](#)
- Types of weather choreography: [Dance & Science: 'Weather' \(2012\) – Lucy Guerin](#)
- Environmental/conservation choreography:
 - [Fighting Climate Change with Dance | KQED Arts](#)
 - [WORLD ENVIRONMENT DAY | Go Green - Save Trees | Stop pollution | Dance | Tapperz Dance Skool](#)

**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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