

**Lesson Plan Title**

Moondance

**Grade Level**

6th Grade

**Subject Area**

Science

**MSCCRS**

E.6.8.6 Design models representing motions within the Sun-Earth-Moon system to explain phenomena observed from the Earth's surface (positions of celestial bodies, day and year, moon phases, solar and lunar eclipses, and tides).

**Art Form**

Dance

**MSCCR Creative Arts Standards**

DA: Pr5.1.6 Develop and refine artistic technique and work for presentation.

a. Embody technical dance skills (for example, alignment, coordination, balance, core support, kinesthetic awareness, clarity of movement) to accurately execute changes of direction, levels, facings, pathways, elevations, and landings, extensions of limbs, and movement transitions.

**Enduring Understanding:** *Dancers use the mind-body connection and develop the body as an instrument for artistry and artistic expression.*

**Essential Questions:** *What must a dancer do to prepare the mind and body for artistic expression?*

DA: Pr6.1.6 Convey meaning through the presentation of artistic work.

a. Recognize needs and adapt movements to performance area. Use performance etiquette and performance practices during class, rehearsal, and performance. Post-performance, accept notes from the choreographer and make corrections as needed and apply to future performances.

**Enduring Understanding:** *Dance performance is an interaction between the performer, production elements, and audience that heightens and amplifies artistic expression.*

**Essential Questions:** *How does a dancer heighten artistry in a public performance?*

**Duration**

1.5 hours

**Materials**

Pictures of the 8 moon phases

Image showing the revolution of the moon around Earth and how that creates phases of the moon from our perspective on Earth (<https://2.bp.blogspot.com/-INayu4K58gs/TiBlcPyUj-I/AAAAAAAAABaM/QK9yDBMbVjc/s1600/phases.gif>)

Tangible representations of the sun and moon for each group of students.

### **Objectives**

Students will represent the 8 phases of the moon with hand motions.

Students will dance the phases of the moon while revolving around a central point (Earth).

### **Vocabulary**

New moon

Waxing crescent

First quarter (half moon)

Waxing gibbous

Full moon

Waning gibbous

Third/last quarter (half moon)

Waning crescent

Revolve

Space as element of dance

### **Lesson Description**

1. Begin the lesson by assessing prior knowledge of moon phases. Ask students if they've noticed the moon looks different each night and how it changes slightly from night to night. Ask if they know why this might occur.
2. Show pictures of the 8 moon phases in order (beginning with new moon). Name them and discuss them. Draw attention to crescent and gibbous moons lasting for several days.
3. While showing pictures of the 8 moon phases, model the hand motions for each one. (The motions can be found here: <https://www.youtube.com/watch?v=ozWR5nB0Q-c>) Have students mimic your motions.
4. After students are familiar with the hand motions, practice transitioning between them so that it becomes one slow, fluid motion from the new moon through all 8 phases. (These motions will become the dance during the groupwork portion.) Play music with a strong 4/4 beat (such as this: <https://www.youtube.com/watch?v=LznxZDX7fo4>) for students to use during the transitions. Count out loud in a slow and soothing voice "1... 2... 3... 4..., 1... 2... 3... 4" so that students can hear the beat of the song as they smoothly transition from phase to phase. Complete the moon cycle several times without pausing to show it is a continual cycle.
5. After students have adequately practiced the fluid transition between each moon phase motion, ask the question again: "Why do we see these 8 phases of the moon?" Show this image: <https://2.bp.blogspot.com/-INayu4K58gs/TiBlcPyUj-I/AAAAAAAAABaM/QK9yDBMbVjc/s1600/phases.gif>

Using the image, show students that half of the moon is always illuminated by the Sun, but we see phases because as the moon revolves around the Earth once every 29.5 days, we are able to see different parts of the illuminated half from our perspective on Earth.

Draw special attention to the position of the moon when it is in each phase. For example, a new moon is always when the moon is between the Earth and the Sun and a full moon is always when the Earth is between the moon and the Sun. The knowledge of the positions of the moon will be important during the group dance.

6. Divide students into small groups of 4 - 6 students. Each group should establish an adequate dance space within the room. Give students a few minutes to lay down on the floor, close his/her eyes, listen to the music, and visualize him/herself moving like the phases of the moon. Remind students, "dancers utilize a mind-body connection in order to develop the body as an instrument for artistry and artistic expression."
7. Part of the dance space will be representative of Earth, which the moon will revolve around. Part of the dance space represents the Sun, which will remain motionless in a fixed space off to the side. It may be necessary for the teacher to provide students with a tangible representation of Earth and Sun (like two different colored balls) to help them visualize this space. \*Mention that for the purposes of this dance, the Earth is in a fixed position. However, in reality, the Earth revolves and rotates. \*
8. Students (who will be representing the moon in this dance) will revolve around the "Earth." The groups will replicate the hand motions with fluid transitions between the phases that were practiced before, but now, they must also show their understanding of the moon's position during certain phases by completing the representational motion only at a certain point of the moon's revolution.  
Ex: The new moon motion should be shown when the moon is between the Earth and Sun. The full moon motion should be shown when the moon is on the opposite side.  
Continue to have the music playing so that the transitions between phases are in time and fluid as students revolve around the "Earth." The dance should be repeated over and over without pausing, representing a continuous cycle of the moon phases.  
Facilitate by walking around the room and checking on each group's dance as needed.
9. After each group has had sufficient time to practice their dances, conduct a visual/oral assessment of each group's dance before dismissing them from their groups.
10. After each group's performance has been assessed, the teacher may say, "Consider what it was like to practice your dance. How did your performance change your presentation?" Allow students the opportunity to respond. Answers will vary. Some students may say they were nervous while others may say it was more fun. Dancers feed off of the interaction between the performance piece, the production elements, and the audience.
11. In order to further wrap up the lesson, allow students the opportunity to discuss (either out loud or in writing) how the moon phases dance helped them to understand why we see phases as the moon revolves around Earth.

### **Recommended Resources**

Moon phases hand motions: <https://www.youtube.com/watch?v=ozWR5nB0Q-c>

Music for moon dance: <https://www.youtube.com/watch?v=LznxZDX7fo4>

Why we see moon phases image: <https://2.bp.blogspot.com/-INayu4K58gs/TiBlcPyUj-I/AAAAAAAAABaM/QK9yDBMbVjc/s1600/phases.gif>

Moon phase video: <https://youtu.be/LC5rEhxGqT4>

### **Extended Learning Activities**

Use a similar conceptual lesson when teaching about the motions of the planets of the solar system. Introduce the rotation and revolution of the individual planets as a dance. Some rotate and revolve faster/slower than others. These speed differences could be shown by different styles of dance.

### **Sources**

Moon Phases Motions - San Diego School District and University of California Teaching Artist Project: <https://www.youtube.com/watch?v=ozWR5nB0Q-c>

### **Assessment Strategies**

*Performance Assessment* - Allow students to construct a product which embodies the skills and understandings from the lesson.

*3-2-1 Strategy* - Students identify 3 things they discovered, 2 interesting things they noticed, and 1 question they still have.

*Critical Response* - Justify the movements utilized in the choreography by using appropriate science and dance vocabulary in the writing. Students may also document the choreographic process with sketches and other information.

### **Tips**

1. During individual groups' assessments, freeze the group's dance at any given time, and have each student explain to you why they are showing that particular moon phase at that point in its revolution.
2. You may choose to have a student stand in the middle of the dance to represent Earth, possibly a student who is shy and feels uncomfortable participating in the movement part of the dance. That student would also need to be assessed by asking him/her why the dancers are showing certain motions at certain points in the revolution.

### **Author**

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