

NEXT GEN CONNECTIONS

LEARNING SPACE AND SCIENCE



SUNLIGHT, MOONLIGHT, STARS

INTERMEDIATE (3-5)

STUDENT TARGETS

- **Skill:** I will use locomotor movements while traveling through general space.
- Cognitive: I will discuss the sun and moon's patterns in the sky.
- Fitness: I will stay actively engaged while traveling in the gym.
- **Personal & Social Responsibility:** I will work safely with classmates while traveling through personal and general space.

TEACHING CUES

- Eyes Up and Alert
- Move with Control
- Be Safe in Space

ACTIVITY SET-UP & PROCEDURE

Equipment:

- 2 poly spots (1 yellow/red and 1 green/blue) per group of 3 students
- 1 fitness ball per group of 3 students
- 1 mini parachute per group of 3 students
- 1 foam ball per group of 3 students

Set-Up:

- 1. Create 2 parallel lines of spots (a yellow line and a green line) along opposite far ends of the activity area.
- **2.** Place a fitness ball on top of each yellow spot. It represents the sun.
- **3.** Place a mini parachute and foam ball on each green spot. It represents the Earth.
- **4.** Arrange students into groups of 3; 1 student with the fitness ball and the other 2 with the parachute and foam ball.

Activity Procedures:

- 1. Today's activity is called Sunlight, Moonlight, Stars. The object of the activity is to work with a partner to move the Earth (foam ball) around the sun (fitness ball).
- 2. The Earth, moon, and sun move in a pattern through space. The sun is super large compared to the Earth. The Earth travels around the sun every 365 days (1 year). How many times have you been around the sun?
- 3. This game is a lot like Red Light, Green Light. When the student with the sun says, "Sunlight!" the pair of students with the Earth will safely balance the Earth on the parachute and begin traveling toward the sun.
- **4.** When the teacher calls out, "Moonlight!" the Earth must slow down, freeze, and wait until the sun says, "Sunlight!" again.
- **5.** Keep moving in this way until you make it around the sun and back to your original spot. This will represent 1 year. Then switch roles and start again.

Grade Level Progressions:

K: Students travel safely at walking speed.

1st-2nd: Students use a variety of locomotor movements while traveling with partners.



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UNIVERSAL DESIGN ADAPTATIONS • The class plays as a group with the teacher acting as the sun in the center of the activity area. Allow students to work independently, each carrying 1 foam ball.

ACADEMIC LANGUAGE

Stars, Sun, Planets, Space, Patterns, Locomotor Skill, Orbit, Share

STANDARDS & OUTCOMES ADDRESSED

- Standard 1 [E1.K-2] Performs locomotor skills (hopping, galloping, running, sliding, skipping) while maintaining balance (K); Hops, gallops, jogs, and slides using a mature pattern (1); Skips using a mature pattern (2).
- Standard 2 [E1.K-2] Differentiates between movement in personal (self-space) and general space (Ka); Moves in personal space to a rhythm (Kb); Moves in self-space and general space in response to designated beats/rhythms (1); Combines locomotor skills in general space to rhythms (2).
- Standard 4 [E4.K-2] Shares equipment and space with others (K); Works independently with others in a variety of class environments (e.g., small and large groups) (1); Works independently with others in partner environments (2).
- **Next Generation Science Standard 1-ESS1-1:** Uses observations of the sun, moon, and stars to describe patterns that can be predicted. *The Universe and its Stars.* Patterns of the motion of the sun, moon, and stars in the sky can be observed, described, and predicted (ESS1.A); *Earth and the Solar System.* Seasonal patterns of sunrise and sunset can be observed, described, and predicted (ESS1.B).

DEBRIEF QUESTIONS

- DOK 1: What is a pattern?
- **DOK 2:** What do you know about the pattern of the Earth, the sun, and the moon (day and night)?
- **DOK 3:** How are the patterns of the Earth, the sun, and the moon related to sleeping?
- DOK 2: What do you know about sleep? Why sleep is important?

TEACHING STRATEGY FOCUS

Identify critical content: As primary school students, young children are exploring patterns within our world. One pattern that affects us every day is the movement of the moon and Earth around the sun. However, most students have not explored this content as a pattern and certainly have not drawn the connection to sleep, their daily and nightly routines, and the importance of sleep patterns.