Lesson: Astronauts in Training - Relay Race

Grade level: K+
Activity duration: 30 minutes

Materials:
- 1 ball per team
- Objects to mark the start line and the “turn around” line

Context:
Astronauts have to have excellent physical fitness before they go into space. Less gravity means there is less constant force on their muscles and bones which can lead to deterioration over time. For this reason, it is important for astronauts to physically prepare for their expedition into outer space by strengthening specific muscle groups. This is a simple relay race that can be used to tie the moon theme in with physical education.

Procedures:
1. Introduce the activity by asking students why it is important for astronauts to be physically fit before they go into space. Share the contextual information with the students. Explain that they will be training like astronauts by competing in teams in a relay race.
2. Divide students into groups of four. Have each group stand in separate lines behind the start line.
3. Demonstrate the different exercises and explain why each is important:
   - Walk backward as quickly as possible to improve endurance and coordination.
   - Lunges strengthen your muscles and bones in both your lower and upper body.
   - Moon Jumping (bounding) improves our balance in the muscles that will help us stay upright while bounding on the Moon.
   - Throwing and retrieving a ball while hopping on one foot will improve balance and spatial awareness (switch feet at the turn around).
1. Have each student decide which exercise they will do the first round.
2. First students walk backwards as quickly as possible to the turn around line and back, giving their teammate a high-five when finished. After being high-fived, the second student on the team will lunge walk to the turn around line and back, giving their teammate a high-five when finished, and so on.
3. The first team to have completed all the exercises wins.
4. Repeat as many rounds as desired, or enough for each student to get to compete in each exercise.