National Aeronautics and Space Administration

Train Like an Astronaut: Adapted Physical Activity Strategies

Explore and Discover

YOUR MISSION

You will safely carry weighted objects from the Exploration Area back to your Base Station to improve aerobic and anaerobic fitness. You will also record observations about improvements in aerobic and anaerobic fitness during this physical experience in your Mission Journal.

LINK TO SKILLS AND STANDARDS

APENS: 2.03.06.01 Structure tasks and activities to account for difficulty in anticipation for individuals with figure-ground problems involved in ball activities.

Activity Specific Terms/Skills

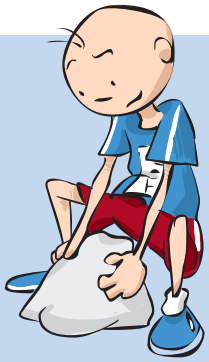
Pacing, endurance, team work, change of direction, recognizing

SPACE RELEVANCE

To explore the Moon and Mars, astronauts must complete the tasks of walking to collection sites, taking samples, carrying science experiments, and safely lifting objects they discover to return to base station. In order to complete this work, astronauts must physically prepare by regularly practicing activities such as walking, running, swimming, and lifting weights.

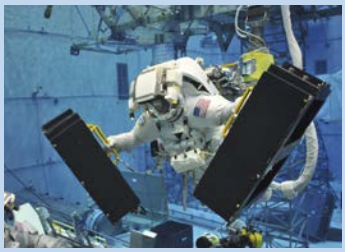
WARM-UP & PRACTICE

- Squats
- Twists
- Locomotive Dance
- Jump in place
- Practice locating heart beat; perform physical activity to note heart rate change
- Separate tasks into smaller steps and perform only the individual steps
- While squatting, pick up and remove balls. Reverse process to return balls to original position



SUGGESTED ADAPTED EQUIPMENT:

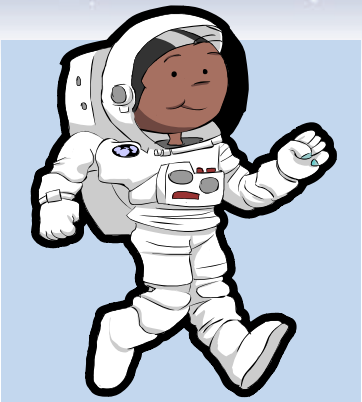
- BALLOON, OR VARIOUS OBJECTS THAT CAN BE CARRIED



Explore and Discover

LET'S "TRAIN LIKE AN ASTRONAUT!"

Adjust steps and procedures as appropriate for participants



Instructions for individual play:

- Begin at the Base Station. The medic will help take the explorer's heart rate and record it in the explorer's Mission Journal. The medic will ask the explorer how they feel and record responses in the explorer's Mission Journal.
- When instructed, the explorer will walk to the Exploration Area to collect mission samples. It is important that the explorer does not run during this mission.
- The explorer will safely lift one mission sample and take it to the Base Station.
- The explorer will continue to collect six mission samples of different sizes and weights, safely lifting one mission sample at a time and taking it to the Base Station. After all mission samples are at the Base Station, the explorer will return all mission samples one at a time to the Exploration Area. When all mission samples are back in the Exploration Area, return to the Base Station.
- With the medics help, the explorer will take their heart rate after the Exploration Mission and record it in their Mission Journal. The medic will ask questions about the explorer's physical condition and record answers in the explorer's Mission Journal.

TRY THIS! *Some ideas for Adapted Activity*

- Different size balls
- Magnetic items
- Use hook and loop fasteners to stick objects to wall
- Change distance and number of objects
- Use baskets or buckets
- Extended reach gripper
- Carry objects in backpacks
- Items on table
- Relay format
- Tie balloons onto objects to make easier to see
- Use tether rope or sight guide
- Use wheelchair. Place objects on tray.