Description: Students will learn the educational and physical requirements for becoming an astronaut, as well as the physical requirements to live and work in space. Students will conduct an assessment of themselves, including weight, height, blood pressure, pulse and timed score on an obstacle course at the beginning and end of the unit. The unit ends with a student presentation on what career they would like to pursue and the health requirements for them to be successful in that career.

Learning Objectives:
- Students will analyze a personal health assessment to determine health strengths and risks.
- Students will learn how their physical health affects their daily lives as well as their future careers.

Activity Time: Daily for one to three weeks; 55 minutes per day (depending on activities chosen)

Materials:
- Bathroom scale
- Blood pressure machine capable of giving pulse rate
- Health Assessment worksheet (page 3 of 3)
- Timer or stopwatch
- Meter or yard stick or tape for measuring height
- A variety of gym equipment to set up an obstacle course, such as jump ropes, hula hoops, cones for start/end lines, scooters, exercise mats, etc.
- Resource information (posters, videos, articles, etc.) from NASA about living and working in space or textbook information available. (Each state has a NASA Educational Resource Center available to them, and it can be located by going to the NASA web site at www.nasa.gov.)

Directions:
- Begin with a study of the requirements (educational and physical) that a person needs to become an astronaut.
- Have students review from their health and general science classes how the different systems of the body work together and what they need to do to maintain them.
- Have students make an assessment of themselves, including pulse rate, blood pressure, weight and height. Have them list their results on their Health Assessment worksheet.
Lead a discussion and comparison of data about the obesity problem facing kids today. This will be done with discretion, and no student names or numbers will be posted or said out loud in class. Students will have a folder with their own data in it to compare during discussion.

Join with the students to design and assemble an obstacle course.

Time students as they run through the obstacle course. Have students write their results on their Health Assessment worksheet.

During the course of study about living and working in space, students will learn what astronauts need to do to remain physically fit in space and for their return to Earth.

Teach students what they can do inside and outside of school to improve or maintain their physical health. Have them create a list of physical activities they can participate in to improve their physical health. Encourage them to engage in these activities during your study of astronauts.

At the end of the unit, time students as they again run through the obstacle course. Have them write their results on their Health Assessment worksheet.

Extend the Activity: Have students select a career they would like to pursue and prepare a class presentation on the health requirements for that field. Have students give their presentations.

Submitted by Dina Exline, Chatterton Middle School, Warren, Michigan

Correlation to National Curriculum Standards:

- Science as Inquiry: Content Standard A-
- Design and conduct a scientific investigation
- Use appropriate tools to gather, collect and analyze data
- Use mathematics in all aspects of scientific inquiry
- Life Science: Content Standard C-
- Structure and function of living systems
- Earth and Space Science: Content Standard D
- Earth in the solar system

From NSES http://newton.nap.edu/html/nses/6d.html#csa58
Health Assessment Worksheet

Name: ____________________________ Date: ______________________

Pulse: ____________________________

Blood Pressure: __________________

Weight: __________________________

Height: __________________________

Obstacle Course Time #1: __________

Obstacle Course Time #2: __________