

# Working in Space

## Purpose

The purpose of these activities is to learn more about space shuttles, space suits, and space work.

Students will be able to

1. Note major parts of the space shuttle.
2. Note major parts of a space suit.
3. Describe one or more experiments conducted in space.
4. Design an experiment to be conducted in space.

## Important Vocabulary

space	space suit	Extravehicular Mobility Unit	crew
shuttle	experiment	space station	launch
satellite	laboratory	spacewalk	rocket
orbiter	research	scientific method	

## About the Space Shuttle

Students read about space shuttles, highlighting important points in the reading. The reading material should be relatively short; “Space Shuttle Basics” is a very good reference point, and can be found online at the NASA website (<http://spaceflight.nasa.gov/shuttle/reference/basics/index.html>). After reading, students briefly discuss what they have learned. This exercise helps with reading comprehension, while introducing some important terms/ideas.

## About Space Suits

Students read about space suits, highlighting important points in the reading. The reading material should be relatively short; “Space Wear” and “Space Station Extravehicular Activity” are very good reference points, and can be found online at the NASA website (<http://spaceflight.nasa.gov/living/spacewear/index.html> and <http://spaceflight.nasa.gov/station/eva/spacesuit.html>). After reading, students briefly discuss what they have learned. This exercise helps with reading comprehension, while introducing some important terms/ideas.

## About Space Work

Students read about space work, highlighting important points in the reading. The reading material should be relatively short; “Space Work” is a very good reference point, and can be found online at the NASA website (<http://spaceflight.nasa.gov/living/spacework/index.html>). After reading, students briefly discuss what they have learned. This exercise helps with reading comprehension, while introducing some important terms/ideas.

Students also investigate specific experiments conducted in space, at the International Space Station. “Space Station Science” provides a list of experiments conducted during each expedition; it can be found online at the NASA website (<http://spaceflight.nasa.gov/station/science/experiments/index.html>). (Optional: Students choose and summarize an experiment in writing.)

## Experiments for Space

Students design their own experiments. This activity can be done individually, in pairs, or in small groups. Note: In order to complete this activity, students must be familiar with experiment development; and they must understand what the scientific method is and how to use it. (Helpful resources regarding experiments and the scientific method can be found online; two specific sites that might be considered good starting points are [http://teacher.nslr.rochester.edu/phy\\_labs/AppendixE/AppendixE.html](http://teacher.nslr.rochester.edu/phy_labs/AppendixE/AppendixE.html) and <http://www.isd77.k12.mn.us/resources/cf/SciProjIntro.html>).