



Lesson: Build a Space Station!

Age level: K-6

Preparation time: 45 minutes

Lesson duration: 1 hour (or more)

Kit materials:

Space station components template

Images of the International Space Station

NASA's *International Space Station* information sheet

"Space Station Review" worksheet

"Exploring Space Stations at Home" list (further resources for kids)

Space Stations (book) by Diane M. and Paul P. Sipierya

Classroom materials:

Scissors

Tape

White or colored cardstock

Lesson objectives:

- Students will be able to list the various components necessary for survival in space
- Students will design a model of a working space station, and will be able to explain what each part of it is for

Lesson preparation:

- Make copies of the space station components template for the class
- Build your own components so that students have a model for construction

Lesson procedure:

1. Introduce students to the concept of a space station by reading NASA's information sheet and the *Space Stations* book (explain to students that this book was written before the International Space Station was built). Show students the images of the International Space Station, and discuss what some of the parts of the station are for (modules, module connectors, truss, and solar panels)
2. As a class or in small groups, make a list of modules that might be important for people living in space (e.g. recycling module, life support module, experiment module, etc.). Ask them to consider what types of scientific experiments might be conducted in a space station.
3. Show students your component models. Have them draw a blueprint of how their space station will look.
4. Have students build their own components and assemble their space station. Make sure that they label each component and what it is for. Have them record measurements of each component and record the measurements on their blueprint.
5. Encourage students to share their space stations, and to describe why they designed them that way.
6. Distribute take-home resource sheets, and if they are old enough, have students complete the short "Space Station Review" worksheet. For younger students (K-2), go over the worksheet as a class.

