



Virtual Learning

Aerospace Engineering

International Space Station

April 20, 2020



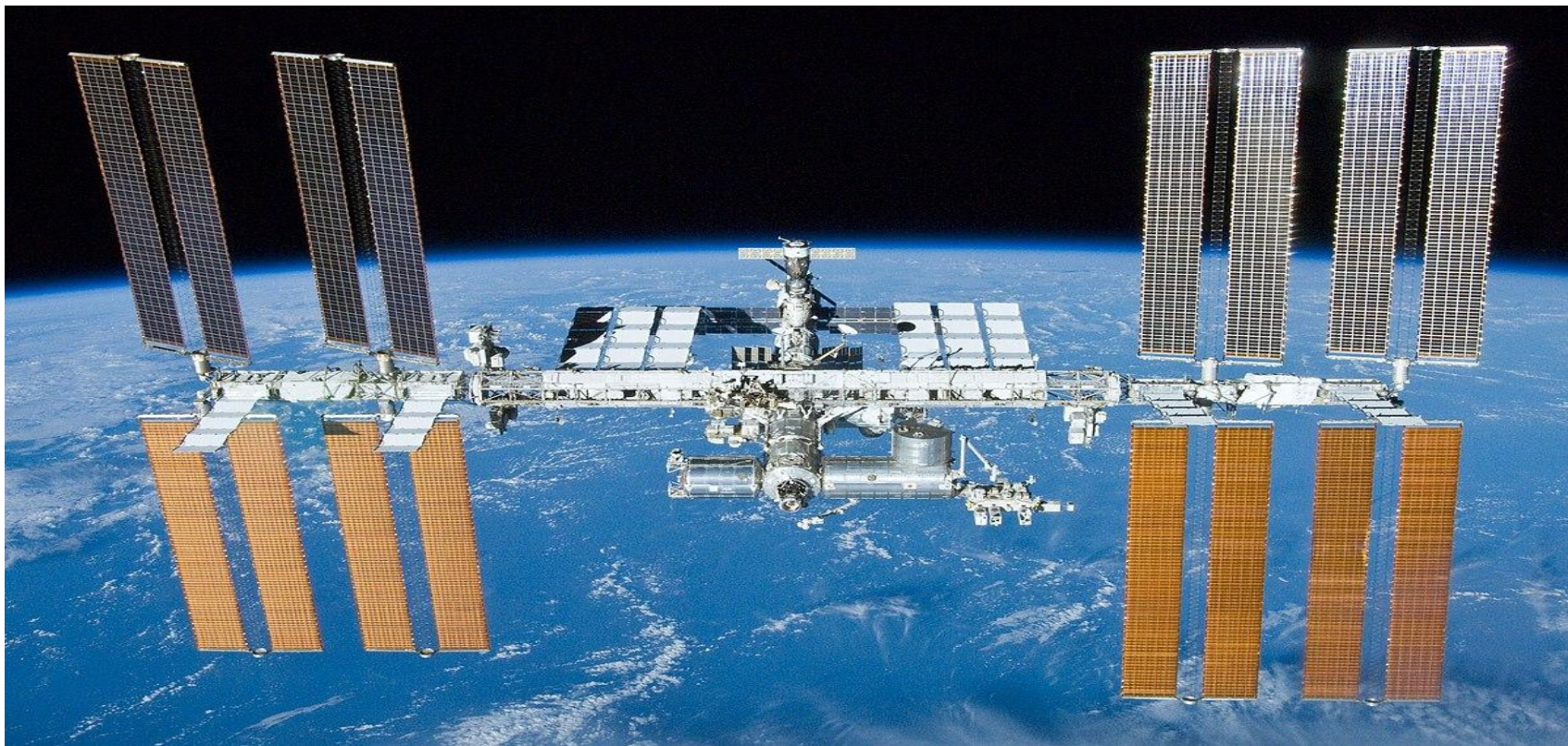
Aerospace Engineering

Lesson: April 20, 2020

Objective/Learning Target:

Students will learn about the significance of the International Space Station.

International Space Station





Bell Work:

What is Space Station Freedom?



International Space Station

Let's Get Started:

Watch Videos:

- [How Does the International Space Station Work?](#)
- [ISS - International Space Station - Inside ISS - Tour - Q&A](#)
- [NASA ISS Live Stream - Earth From Space](#)



International Space Station

Before You Begin

ISS - International Space Station

Space Station - a habitable artificial satellite



International Space Station

The International Space Station (ISS) is a space station orbiting Earth. The ISS program is a joint project between five space agencies, The United States, Russia, Japan, Europe, and Canada. The ownership and use of the space station is established by intergovernmental treaties and agreements.

The ISS serves as a microgravity and space environment research laboratory, This allows crew members to conduct experiments in biology, human biology, physics, astronomy, meteorology, and other fields. The ISS is suited for the testing of spacecrafts and equipment required for missions to the Moon and Mars.



International Space Station

Space Station Freedom was a United States project to build a permanently crewed Earth-orbiting space station in the 1980s. Even though it was approved by President Ronald Reagan and announced in the 1984 State of the Union address, Freedom was never built. After several cutbacks, the project evolved into the International Space Station program.

The ISS took 10 years and more than 30 missions to build. The space station is approximately the size of a football field. It weighs approximately 460-tons, it is a permanently crewed space station that is orbiting 250 miles above Earth. It is also about four times as big as the Russian space station Mir and about five times as large as the U.S. Skylab.

International Space Station

The ISS maintains an orbit of about 250 miles above the surface of the Earth. It maneuvers by using the engines of the Zvezda module or other visiting spacecraft. It circles the Earth in roughly 92 minutes and completes 15.5 orbits per day.

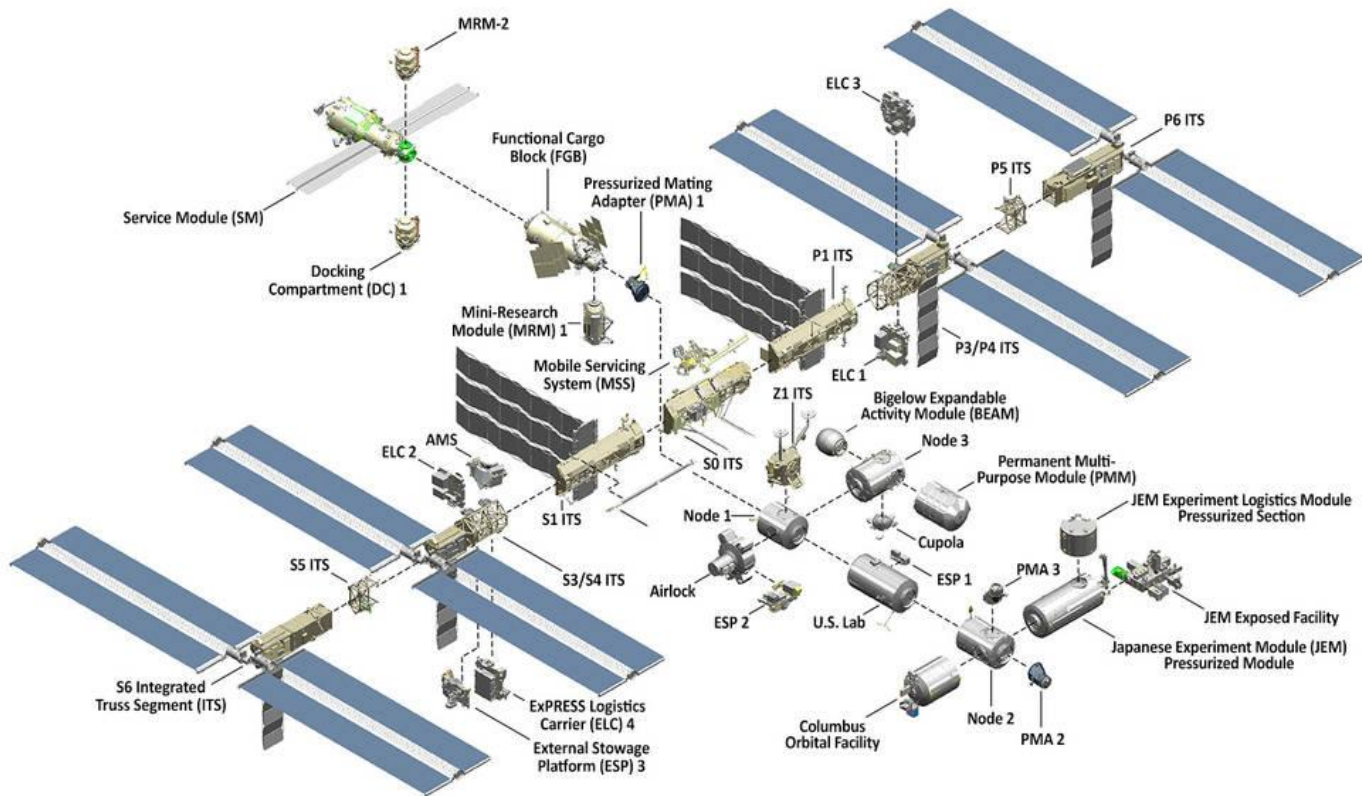




International Space Station

As of January 2018, 230 individuals from 18 different countries have visited the ISS. The top participating countries include the United States (145 people) and Russia (46 people). An astronaut's time and research time on the space station is allocated to space agencies according to how much money or resources, like modules or robotics, that they contribute to the ISS.

International Space Station





International Space Station Understanding

Use the website below to try and see if you can spot the International Space Station.

<https://spotthestation.nasa.gov/>