Module 12: The Changing Times – The 2000s to the Present
Topic 4 Content: The United States Space Program

Introduction

Click each image to learn how the United States space program evolved after the Cold War.

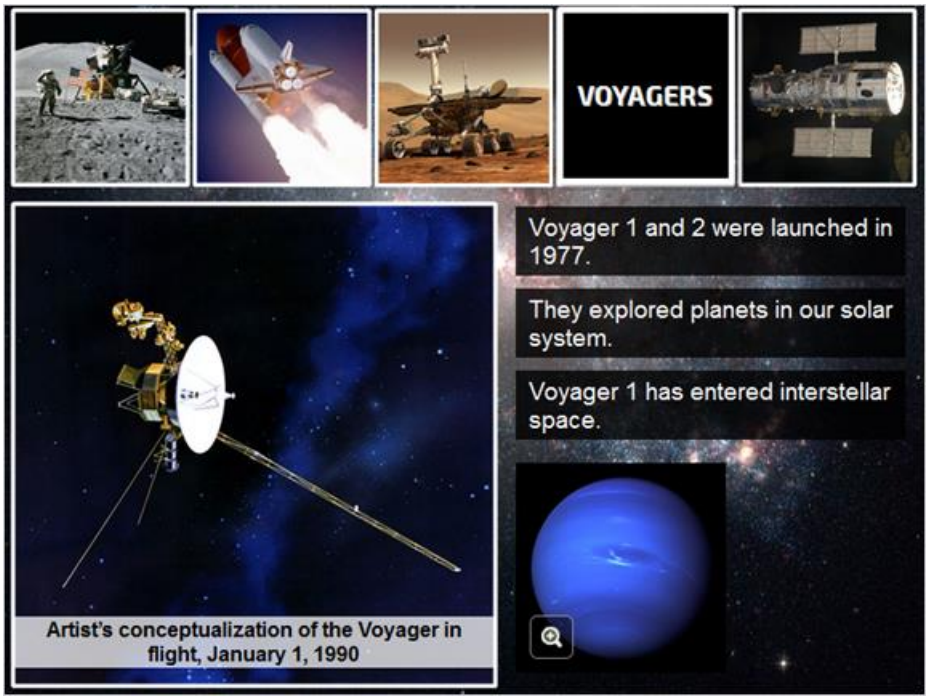
Space Shuttle

After the novelty of going to the moon wore off, NASA shifted its focus toward other projects. The organization continued to send astronauts into space using a new vehicle, the space shuttle. A goal of the space shuttle program included the creation of a space vessel that could be reused, thus saving NASA money. The first space shuttle mission happened in April 1981. Then, on June 18, 1983, Sally Ride became the first female American woman in space. She rode on the seventh space shuttle flight. The final space shuttle mission was in July 2011. In total, one hundred thirty-four space shuttle missions occurred over twenty-eight years. It cost about one point five billion dollars per launch.

Mars Rover

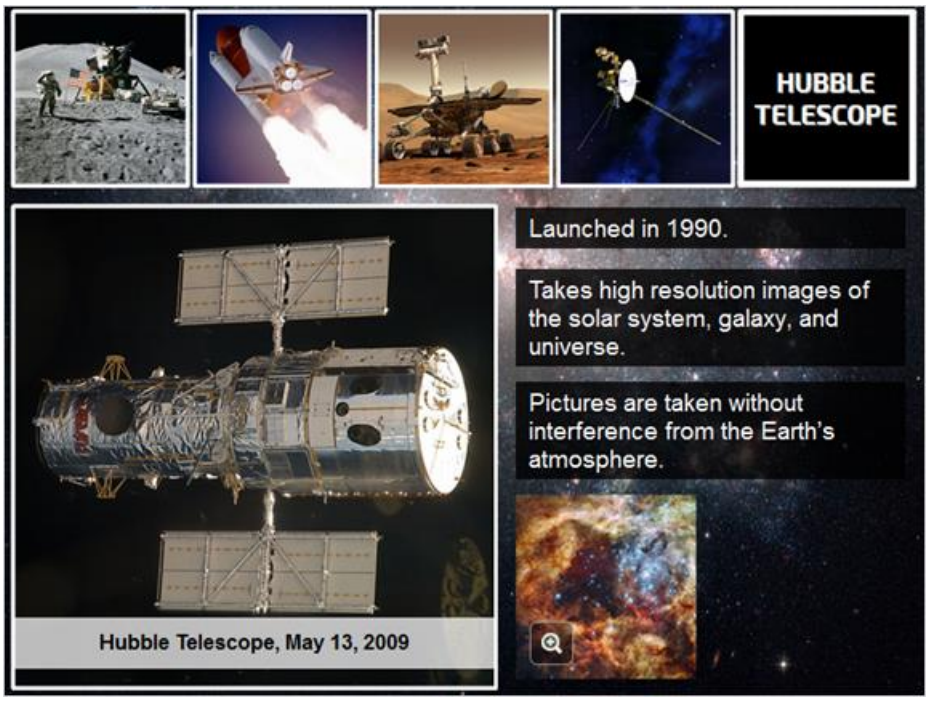
Starting in 1997, and continuing today, NASA has been sending rovers to the surface of Mars. In 2004, these small remote controlled vehicles began exploring Mars in search of various rocks and soil that hold evidence of whether water existed on the planet. Two rovers are collecting evidence on opposite sides of Mars. Specifically, one is located at Gusev Crater, which potentially used to be a lake; and the other rover is at Meridiani Planum, where mineral deposits have been discovered. As the rovers search the planet, they take pictures that are sent to scientists to examine.

Voyager 1 and Voyager 2



In 1977, NASA launched two robotic probes called Voyager 1 and Voyager 2. This technology explored other planets in our solar system, including Jupiter, Saturn, Uranus, and Neptune. In 2012, Voyager 1 went beyond our solar system, and entered interstellar space, also known as the region between stars. Both space probes still send data back to NASA. The Voyager 2 used a narrow angle camera to take this picture of Neptune in 1989.

Hubble Space Telescope



Originally launched via space shuttle in April of 1990, the Hubble Space Telescope is still functioning today. The telescope takes high resolution images of the solar system, galaxy, and universe. The telescope can take pictures of objects like stars and planets without interference from the Earth's atmosphere. It has made more than one million observations, and generated more than one hundred terabytes of data. The Hubble Space Telescope took this picture of the R136 super star cluster near the center of the 30 Doradus Nebula, also called the Tarantula Nebula.