

SCIENCE  
**FUSION** Earth Science  
HOLT McDOUGAL

# PowerNotes

**Unit 5 Lesson 3** Space Exploration and Florida

## Florida Benchmarks

- **SC.8.N.4.1** Explain that science is one of the processes that can be used to inform decision making at the community, state, national, and international levels.
- **SC.8.N.4.2** Explain how political, social, and economic concerns can affect science, and vice versa.
- **SC.8.E.5.12** Summarize the effects of space exploration on the economy and culture of Florida.



# A History of Space

## What is NASA's history?

- The National Aeronautics and Space Administration, or **NASA**, was formed in 1958.
- A **launch** is the process of setting a rocket or spacecraft in motion.
- Projects for launching to the moon included project *Mercury*, project *Gemini*, and the *Apollo* program.



## What is NASA's history?

- *Skylab* and the *International Space Station* were a result of work at NASA.
- NASA also launches probes and satellites to other planets.
- Rovers such as the *Sojourner*, *Spirit*, and *Opportunity* have explored Mars.



## Cape Space

### What are the NASA sites in Florida?

- The first NASA space operations were carried out at the Cape Canaveral Air Force Station, east of Orlando.
- In 1962, NASA established the Kennedy Space Center on Merritt Island near Cape Canaveral.



## Why launch from Cape Canaveral?

- NASA chose Florida as a launch center because it is close to the equator.
- A rocket launched near the equator needs less fuel to reach orbit.
- Eastward launches over open water provide a safe place for booster rockets and fuel tanks to fall.



## An Economy of Space

### How does the space program affect Florida's economy?

- Tourism is increased by space-related activities in Florida, adding money to the Florida economy.
- Revenue for Florida is increased by employees and tourists that spend money at local businesses.



## **How does the space program affect Florida's economy?**

- Private firms and the military rent and use NASA facilities for other types of launches.
- Launches of satellites encourage private industry.
- NASA and related aerospace firms provide thousands of jobs for people.



## What is a spin-off?

- A **spin-off** is a product that uses NASA technology and benefits the public.
- Aerogels for insulation, imaging devices in cameras, and thermal blankets all began with NASA technology.



## Living Together

- The Kennedy Space Center shares its site with the Merritt Island National Wildlife Refuge.
- Endangered species are protected because of restricted human access to the site.
- Species at the refuge include the West Indian manatee and five species of sea turtles.



## On Solid Ground in Florida

### How has the space program affected Florida's culture?

- Many high-tech industries have developed in Florida.
- Workers are drawn to Florida for new opportunities in aerospace careers.
- There is more emphasis on science and mathematics in Florida's schools.

