



Space Exploration Merit Badge Requirements U.S.S. Hornet (CV-12) Museum Apollo 11 / Apollo 12 Recovery Ship

Name: _____

1. Discuss history & purpose of space exploration.
 - a. Historical Reasons
 - b. Immediate Goals in terms of specific knowledge
 - c. Benefits related to earth resources, technology, and new products.
2. Design a collector's card with a picture on the front and information on the back, about your favorite space pioneer. Share your card and discuss four other space pioneers with your counselor.
3. Build, launch and recover a model rocket, if local laws prohibit launching model rockets, do the following activity: Make a model of a NASA rocket. Explain the functions of the parts. Give the history of the rocket.
4. Discuss & demonstrate the following:
 - a. Newton's 3rd Law (The law of action and reaction)
 - b. How rocket engines work
 - c. How satellites stay in orbit
 - d. How satellite pictures are made & transmitted
5. Do TWO of the following:
 - a. Discuss an unmanned & early manned space mission. Tell about its discoveries, importance, etc.
 - b. Make scrapbook about a current planetary mission
 - c. Design an unmanned mission to another planet or moon that will return surface samples to Earth. Name the planet or moon your spacecraft will visit. Show how your design will cope with the conditions of the planets or the moons environment.
6. Describe the purpose & operation of ONE of the following:
 - a. Space Shuttle
 - b. International Space Station
7. Design an inhabited base on the Moon or Mars & consider the following:
 - a. Energy source
 - b. Construction
 - c. Life-support systems
 - d. Purpose & function
8. Discuss TWO possible careers in space exploration. Find out qualifications, education, and preparation requirements and discuss the major responsibilities of those positions.