

Space Exploration Merit Badge



Pre-requisite Worksheet

Updated: August 18, 2011

Name: _____

Troop/Pack Number: _____

Scout Masters:

Scouts must complete pre-requisites prior to workshop. Be sure to answer all parts of each question, otherwise pre-requisites will be incomplete. Scouts must be at least 11 years or hold first class scout status. Scouts must arrive in uniform and have a Merit Badge Application fully filled out and signed by their Scout Master. Scouts must have read the Space Exploration Merit Badge pamphlet.

Scouts must bring pamphlet and completed pre-requisites to the workshop session.

The Detroit Science Center Merit Badge Counselor reserves the right to give partial or no credit to scouts not completing the above requirements.

Requirement 1: Tell the purpose of space exploration and include the following:

- Historical reasons,
- Immediate goals in terms of specific knowledge,
- Benefits related to Earth resources, technology, and new products.

Historical reasons:

Immediate goals in terms of specific knowledge:

Benefits related to Earth resources, technology, and new products:

Requirement 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.

FRONT

Name of Space Pioneer:

BACK

Information about Space Pioneer

Space Pioneer:

Space Pioneer:

Space Pioneer:

Space Pioneer:

Requirement 4: Discuss and demonstrate each of the following:

c. How satellites stay in orbit

d. How satellite pictures of Earth and pictures of other planets are made and transmitted

Requirement 5: Do the following: (Attach to worksheet and bring to the Detroit Science Center workshop on November 12, 2011)

b. Using magazine photographs, news clippings, and electronic articles (such as from the Internet), make a scrapbook about a current planetary mission.

c. Design an unmanned mission to another planet or moon that will return samples of its surface to Earth. Name the planet or moon your spacecraft will visit. Show how your design will cope with the conditions of the planet's or moon's environment.

Requirement 8: Discuss with your counselor two possible careers in space exploration that interest you. Find out the qualifications, education, and preparation required and discuss the major responsibilities of those positions.

Possible Career: _____

Qualifications: _____

Education: _____

Preparation required:

Major Responsibilities of this position:

Possible Career: _____

Qualifications: _____

Education: _____

Preparation required:

Major Responsibilities of this position:

Scoutmaster Signature: _____ **Date:** _____