Lesson 21-Exploring Space

KEY TERMS

astronomer

astronomy

Hubble Space Telescope

space probe

space shuttle

space station

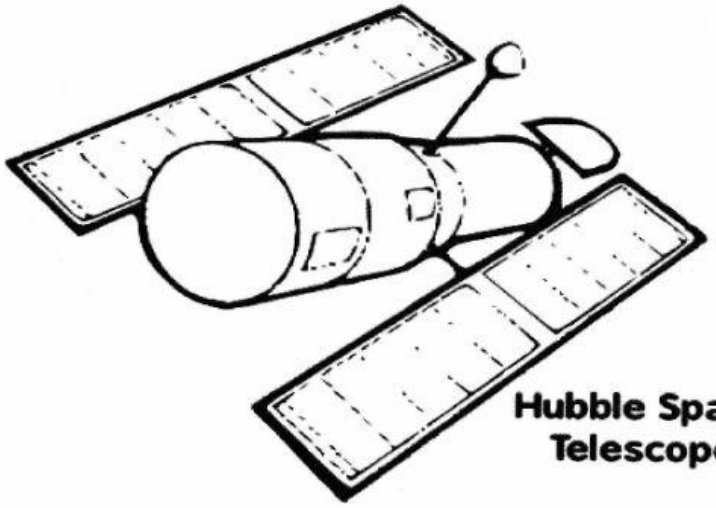
telescope

OBJECTIVE

⇒ **Identify equipment used to study objects in space**

The study of objects in space is called **astronomy**. A scientist who studies objects in space is an **astronomer**. Astronomers use devices, including telescopes to study distant objects in space.

A **telescope** is a device that makes objects that are far away, appear closer. Some telescopes collect more light than the naked eye can see. A light telescope collects visible light and uses it to form images of distant objects. One of these telescopes is called a *refracting telescope*. It uses lenses to form objects. Another type of light telescope collects light with a saucer-shaped mirror. This is called a *reflecting telescope*. Scientists now have a reflecting telescope out in space. It is called the **Hubble Space Telescope**. This telescope is designed to be in orbit around Earth and to send images to Earth from space.



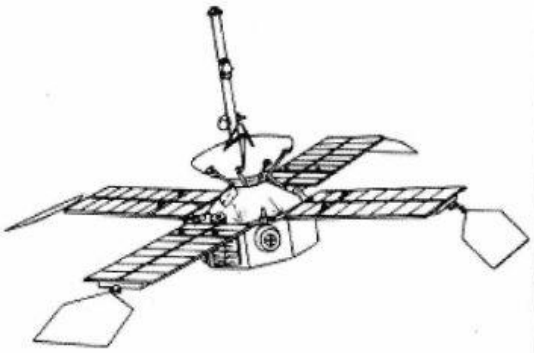
Hubble Space Telescope

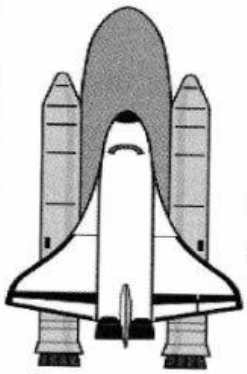
Scientists use special crafts to explore space. The crafts are pushed into space by powered rocket engines. **Three** (3) types of space crafts are presently being used.

LIVEWORKSHEETS

The Space Probe

The **space probe** does not carry humans. It gathers data about objects in space and sends that information back to Earth to be processed.



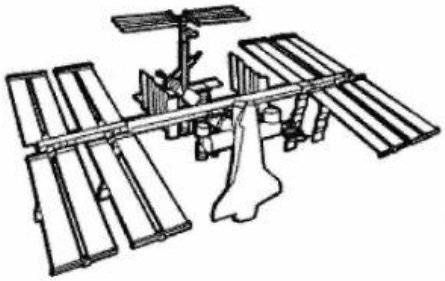


The Space Shuttle

One of the most useful space crafts is the space shuttle. A **space shuttle** is a vehicle composed of a giant fuel tank, large rocket or engine and an orbiter. The orbiter can be launched into space and returned to Earth. It carries passengers and equipment.

The Space Station

A **space station** is a spacecraft in space at all times. This is where scientists live while working in space.



The two countries that have done the most work in space are the *U.S.A.* and *Russia*. Other countries involved in space exploration are China and a group of European countries.

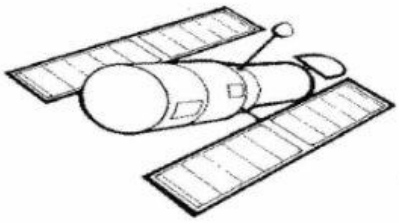
LIVEWORKSHEETS

Exploring Space-Assessment

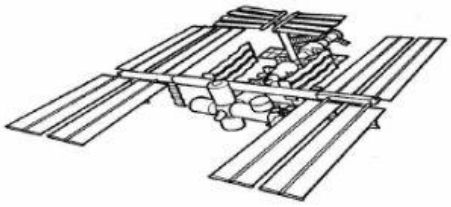
Name:_____ Date: _____

The pictures below show equipment that are used by scientists to explore and study space. Use the pictures to answer the following questions correctly.

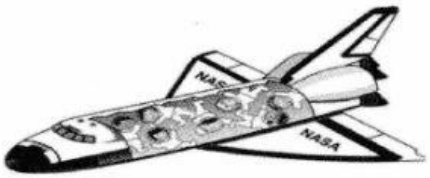
W



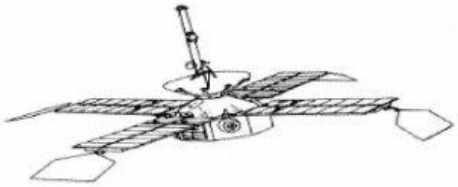
X



Y



Z



1. Look at the pictures of the space objects above. Use the words in the box to label each space object. [4]

Hubble Space Telescope	Space Probe	Space Shuttle	Space Station

LETTER	SPACE OBJECT
W	
X	
Y	
Z	

LIVEWORKSHEETS

2(a) What is the name of the scientist who studies objects in space? Shade in the LETTER next to the correct answer. [1]

(A) astronomer (B) chemist (C) meteorologist (D) paleontologist

2(b) Name the instrument used to see objects in space by the scientist you mentioned in **2(a)**. [1]

_____

_____

3. Which **TWO** countries below have done the most work in space? Shade in the LETTERS next to the correct answers. [2]

(A) France (B) Russia (C) Spain (D) U.S.A

4. Read each statement below. Write **True** if the statement is true or **False** if the statement is false on the lines provided. [4]

a. _____ A reflecting telescope collects light with a saucer shaped mirror.

b. _____ The Hubble Space Telescope is an example of a refracting telescope.

c. _____ The Bahamas has done some work in space.

d. _____ The Space Shuttle carries humans into space.

TOTAL MARKS-12

LIVEWORKSHEETS