

**Exploring Earth's Moon** (p. 671 – 679)  
*(Part of the previous section is covered for this section.)*

**I. The Moon's Surface**

1. Name three features on the Moon's surface.

1. Maria
2. Craters
3. Highlands (Not in the book.)

30,000 → named after scientists  
 (Kepler, Plato, Aristotle, Copernicus)

2. Round pits on the surface of the Moon are called craters

3. What are craters on the Moon caused by?

Impacts of meteoroids, chunks of rock, or dust from space.  
(Few maria have craters = Most craters formed before maria)

4. Circle the letter of the phrase that best describes maria.

- a. highland peaks that cast dark shadows
  - b. dark, flat areas that were formed by huge lava flows (formed 3-4 billion years ago)
  - c. vast oceans that cover much of the ocean
  - d. craters made from exploded volcanoes
- (17% of lunar surface)

5. Was is evidence that indicates that the Moon has highlands? (Not in the book.)

Dark shadows cast by the peaks of the lunar highlands and rims of the craters  
(83% of lunar surface)

6. Circle the letter of the approximate diameter of the Moon. (Not in the book.)

- a. about twice the size of Earth
  - b. about half Earth's diameter
  - c. about the distance across the United States, including Hawaii
  - d. about one quarter Earth's diameter
- (238,000 miles to Moon)  
 (3,476 km → 2,159 miles)

7. Why do temperatures on the Moon vary so much? (Not in the book.)

- ① No atmosphere (very hot in sunlight/very cold at night)
- ② Weak surface gravity (1/6 Earth's gravity)  
 ↳ (Gases escape easily into space)

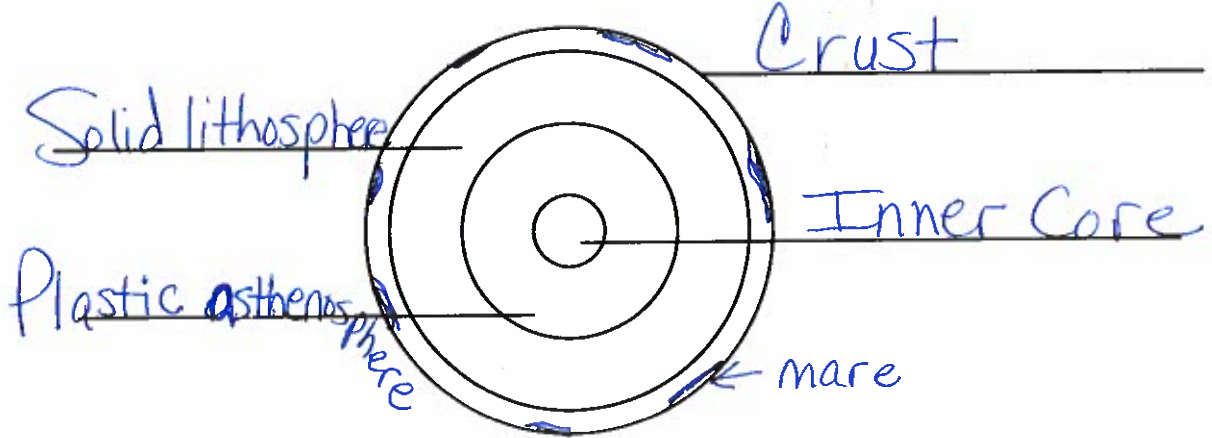
Ejecta Blanket:  
 Material surrounding crater site

**II. Inside The Moon**

1. What occurs on the Moon that enables scientists to understand the Moon's interior?

Moonguakes

2. Label the picture of the interior of the Moon. (Crust not to scale.)



**III. The Moon's Origin**

1. Complete the flowchart to show the sequence of events in the Impact Theory.

1. A large object, the size of Mars collided with Earth.

2. Material from both objects was ejected into space.

3. A ring of gas and debris formed around Earth.

4. Gravity caused this material to form the Moon.

Capture Theory:  
Moon formed elsewhere + pulled in by Earth

Cocreation Theory:  
Moon + Earth formed together

**IV. Missions To The Moon**

1. Match the following Moon missions with their goals.

- |                                |  |
|--------------------------------|--|
| 1. <u>D</u> - Luna             | A. 1 <sup>st</sup> spacecraft to land on the Moon            |
| 2. <u>G</u> - Ranger           | B. Series of manned missions to land on the Moon             |
| 3. <u>F</u> - Lunar Orbiters   | C. Spacecraft that studied the mineral content of the Moon   |
| 4. <u>A</u> - Surveyor         | D. 1 <sup>st</sup> spacecraft sent to the Moon               |
| 5. <u>B</u> - Apollo           | E. Studied the Moon's gravity, magnetic field, & ice content |
| 6. <u>C</u> - Clementine       | F. Spacecraft that mapped the photographed the entire Moon   |
| 7. <u>E</u> - Lunar Prospector | G. 1 <sup>st</sup> United States spacecraft sent to the Moon |

12 people have walked on the Moon

Large patches of ice near poles (always cold)  
(Shielded from sunlight by crater walls)