Note-taking Worksheet (continued)

c. A total solar eclipse is visible only on a small area of _____.

2. _____—when Earth's shadow falls on the Moon

a. If the Moon is completely in Earth's umbra, a _____ lunar eclipse occurs.

b. _____ lunar eclipse—when only part of the Moon moves into Earth's umbra, or the moon is totally in the penumbra

c. A total lunar eclipse is visible on the _____ side of Earth when the night is clear.

D. The Moon's surface has many depressions, or _____, formed from meteorites, asteroids, and comets.

1. Cracks in the Moon's crust caused lava to fill large craters, forming _____, or dark, flat areas.

2. Igneous maria rocks are 3 to 4 _____ years old, indicating craters formed after the surface cooled.

E. Data from _____ suggest that under the Moon's crust might lie a solid mantle, then a partly molten mantle and a solid, iron-rich core.

F. _____ of Moon origin—the Moon formed 4.6 billion years ago from Earth material thrown off when a large object collided with Earth.

Meeting Individual Needs

Section 3 Exploring Earth's Moon

A. Missions to the Moon

1. Early exploration

a. The first *Luna* spacecraft, launched by the _____ in 1959, enabled close study of the Moon.

b. The *Ranger* spacecraft and the *Lunar Orbiters* of the U. S. took detailed _____ of the Moon in the 1960s.

c. Five *Surveyor* U. S. spacecrafts _____ on the Moon.

d. Astronauts of _____ landed on the Moon in 1969.

2. The *Clementine* spacecraft was placed in lunar orbit in 1994 to _____ the moon's surface.

a. Collected data on the _____ content of Moon rocks

b. Mapped _____ on the Moon's surface

c. _____, or craters, are depressions left by objects striking the Moon.

d. Identified _____, the largest and deepest impact basin in solar system.