READING ACTIVITIES (Answer key)

4.3. Answer these questions:

a. What are the differences between an asteroid and a comet?

An asteroid is a small irregular-shaped rocky body that comes from the Asteroid or Kuiper Belts, while a comet is a dust and ice body that comes from the Oort Cloud.

b. Explain what the *accretion of planetesimals* is.

This is the process through which planets were formed. In the early Solar System particles collided and joined together due to the gravity. As they grew in size, the number of collisions increased and the attraction force among them also. The heat provoked by crashes melt particles and fused them. In this way, progressively bigger and bigger bodies were formed, the **planetesimals**. This process is known as **accretion**. Protoplanets were formed by accretion of planetesimals.

c. What is the "*iron catastrophe"*?

This is the process that formed the Earth's Core. The young Erath was a melted ball of rock. Little by little materials were separating by density. The most heavy elements, such as iron sank and form the nucleus of the planet.

d. How was formed the Moon?

The most accepted theory proposes that during the first moments of the existence of the Earth, a rocky planet similar in size to Mars, collided with the Earth.

Part of the matter of this planet joined with the wretched materials of the Earth formed a remainders cloud that started to revolve around the Earth. The accretion of these materials would be the origin to the Moon.