Unit 1 Study Guide Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_

1. Describe the difference in the geocentric theory and heliocentric theory of the solar system.

|  |  |
| --- | --- |
| Earth is in the center Geocentric theory | The sun is in the center Heliocentric theory |

1. The theory that scientists use to explain the formation of the universe is known as

The big bag theory

1. Label the diagram to show the correct relationship between the universe, earth, solar system and galaxy:

Universe



Earth

Solar System

Galaxy

1. Where is our solar system located in the Milky Way Galaxy? \_\_\_\_\_outer rim or arm\_\_\_\_\_
2. Compare the planets:

|  |  |
| --- | --- |
|  Inner planets  |  Outer planets |
| Less denseSmallerLess moonsNo ringsMercuryVenusEarthMars | More denseLargerMore moonsHas ringsJupiterSaturnUranusNeptune |

1. Compare and contrast these space objects:

|  |  |  |
| --- | --- | --- |
|  Comets |  Meteors |  Asteroids |
|   Made of frozen gas and dust |  Made of dust and rock and can enter the Earth’s atmosphere and burn up. |   1 – 1000 km in diameter Made of iron and nickelHas no atmosphere. |

1. Label the model of our solar system:



1. Why do stars and constellations appear to move across the sky?
They change their location due to the revolution of Earth. They rise and set due to the rotation of the Earth.
2. Describe the difference between gravity and inertia in movement of objects in space:
Gravity pulls Earth towards the sun. (1) Inertia keeps Earth revolving in space. (2)
3. Identify the object in our solar system based on the characteristics:

|  |  |
| --- | --- |
|  Characteristic |  Object |
| Rust-colored surface | Mars |
| Earth’s twin | Venus |
| Great Red Spot | Jupiter |
| Lots of liquid water | Earth |
| Lots of rings made of ice | Saturn |
| Tilted 90 degrees | Uranus |
| Dwarf planet | Pluto |
| Smallest planet | Mercury |
| Planet farthest from the sun  | Neptune |
| Located between the inner planets and outer planets | Asteroid Belt |
| The center of our solar system | Sun |