**Capstone Project: Topic & Research**

Celestial Bodies and Space

Celestial body – any physical object that exists in space, outside of Earth’s atmosphere

Planets:

Terrestrial planets are composed primarily of various types of rocks and minerals, as well as metals. In the Solar System, the rocky planets are: Mercury, Venus, Earth, and Mars.

Gas giants are massive planets composed primarily of helium and hydrogen gas. In the Solar System, the gas giants are: Jupiter, and Saturn.

Ice giants are planets that are massive like gas giants, but made of different materials; they are made of oxygen, carbon, nitrogen, and sulfur. In the Solar System, Uranus and Neptune are ice giants.

Dwarf Planets:

Dwarf planets are basically planet-size masses that orbit a star, are larger than a moon, but are smaller than a normal-size planet. Pluto was no longer considered a planet due to the discovery of a large number of similar planets, as a result the class~~ification~~ of “dwarf planet” was made.

Stars:

Stars are bodies made of plasma, essentially burning gases, and held together by its own gravity. At night, many stars can be seen because of the light they emit, the Sun being the largest as it is the closest to us.

Nebula:

A cloud of gas and dust in space, these can sometimes be seen in the night sky as a bright patch.

Galaxies:

Galaxies come in various shapes and sizes and are groups of planets, stars, and other celestial bodies. The galaxy we live in, the Milky Way, is a spiral galaxy. Other types include elliptical and irregular galaxies.

Black Holes:

An area in space where the gravity is so strong that nothing, not even light can escape it. As a result of light not leaving a black hole, they are not visible to people. Black holes are believed to form from a collapsing star, although such a star would need to be much larger than the Sun.

White Holes:

An area of space which cannot be entered from the outside, but it ejects large amounts of light and matter. A white hole is essentially the opposite of a black hole, although there is proof of the existence of black holes, there is not yet any of white holes.

Void:

A void is simply a large area of space where little-to-no object, stars, or anything exist. They are only visible due to the absolute lack of light or anything in them, making them spots of large spots of darkness.

Video Link:

"Get to Know Your Galaxy!"

https://www.youtube.com/watch?v=DtiRn0Ecpjc&index=12&list=PLw2cuKNQvZ2c5UQcwMS4Fg05UdiT3-gs4

External Links:

1. Astronomy:

http://www.astronomy.com/news/2012/02/hubble-reveals-a-new-type-of-planet

2. Space-Facts:

https://space-facts.com/

3. NASA:

https://www.nasa.gov/

4. Solar System Facts:

https://www.space.com/56-our-solar-system-facts-formation-and-discovery.html

5. National Geographic:

https://www.nationalgeographic.com/science/space/