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The Museum of Natural History is one of the largest museums in all of New York. In order to get the most out of our visit we used our communication materials of iPhones and laptops. The models of iPhones we used were the 4, 4s, 5, 5s, and the 5c. We used our personal laptops to take notes and to email each other the information we each collected.

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Methods & Materials

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Acknowledgements

To begin with, we would like to acknowledge Professor Dante Tawfeeq for accompanying our group to the Museum of Natural History.


Constellations and the Night Sky

- Constellations are clusters of stars that create imaginary shapes in the night sky.
- There are 88 official constellations as of March 2003.
- When new stars are discovered, they are considered to be part of the constellations they are closest to.
- One way math is used to identify these constellations is through the use of a telescope; when astronomers use the telescope to see the stars, there are numbers being recorded through the camera which is attached to the telescope.
- On Earth, different constellations can be seen as the Earth orbits around the Sun.

What Makes Up a Constellation?

- When gazing up at the night sky on a clear day, we can normally see hundreds to thousands of stars. These stars are hundreds of thousands of miles away from our point on Earth.
- Some stars stand out from others. In ancient times, when our ancestors gazed at the night sky, they used these distinctions in the sky to tell what season and even what month it was.
- Today, we know of these distinctions in the stars to make up constellations.
- In mathematical terms, each star represents a point in the night sky. When these points are connected and come together, they create images.

Chart of Constellations

The above are only some of the many constellations that can be seen in the night sky.

The Earth and Moon’s Axes

This diagram shows some of the axes that the Earth and the Moon’s orbit travels on.

The Universe: Axes

- Everything in the universe revolves around an axis.
- Each component of mass and dark matter in space constantly revolves around stars, planets, moons, galaxies, and much more.
- According to scientists the rotations of a moon, planet and star take are referred to as an orbit.
- The factors that are taken into account for each planet, star, and moon in its orbit include the mass density, size, shape, and pressure. These findings have helped scientists and mathematicians understand how stars, planets, and moons orbit in space.

Conclusion

- Constellations were used for many reasons in the past. Many of the constellations have been named after Greek gods based off of ancient Greek legends.
- Constellations were used by people since ancient times as a way of telling what season it was.
- For example, when the constellation Orion started to show, it was a sign of winter coming.
- The constellations were very useful to the ancient people for navigating through the night.
- Constellations are composed of many stars or points. When planets and moons orbit in galaxies, they are tilted on an axis.
- Today as these planets and moons revolve on their axes, different constellations can be seen which are used to identify constellations in the night sky. These constellations tell us about the locations of some stars.