**Mars: Colonization of the Red Planet**

Mars has always captured the imagination of humankind, from its obvious red colour to the first glimpses of “canals” carved into the surface to our latest remote-controlled explorations of its surface. In this project you will examine several components of the efforts to colonize Mars, starting with an overview of the planet itself followed by details of the voyage and settlement. **Please be sure to complete every required component of the project.**

1. **Mars- Details about the planet**

* Include background details about Mars, including its discovery, its name and history.
* Statistics: mass, volume, circumference, size compared to Earth, gravity, length of day and year
* Discuss the moons and the large geographical features of the red planet.
* Living conditions: temperatures, atmosphere, weather, resources (water, metals, minerals etc.)

1. **The Voyage to Mars**

Research the journey to Mars and include the important details of the space trip.

* Space ship designs, including engine design, living quarters and cargo.
* length of time the voyage will take and the route taken
* dangers and challenges to the humans on the journey

1. **Colonization of Mars**

Research some ideas of how different Mars bases and colonies would be set up.

* Base designs, including vehicles and buildings, communications, living quarters,
* Resources: food production, oxygen, water, raw materials.

1. **Model**

Build a model of one of the designs you come across in your research. Your model may be of a building, a vehicle or a spaceship that has been designed for Mars colonization. Include a written description of its design and parts.

**Mars-One**

Go to [**www.mars-one.com**](http://www.mars-one.com) and explore the website. **Do not use it as your only resource.**

*This project requires you to show some creativity as well as the ability to accurately gather information from a variety of sources.*  ***It is important that your research component includes a bibliography with a list of sources.*** *Do not rely on Wikipedia alone for your content as Wikipedia can often be misleading and inaccurate.*