

Activity 4

THE SCIENCE BIT

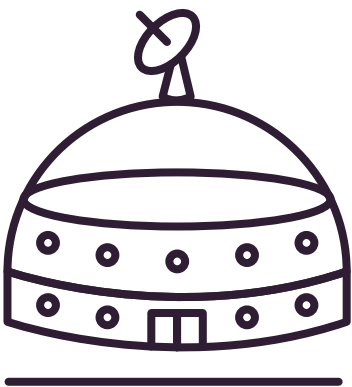


**Thanks for helping me with my Martian mission curiosity challenge.
I've been so impressed with all your hard work!**

I feel like I'll be fully prepared for my mission to Mars if it happens. Let's find out a bit more about Mars before I go.

MARTIAN MANSION

Mars does not have a breathable atmosphere so any living environment would need to have something which either created, or recycled, oxygen. Thankfully Mars' gravity is very similar to Earth's and it only takes 24 minutes for radio signals to travel between Mars and Earth so communication will be easy.



PLANETARY PLANTERS

Plants are a healthy part of the human diet, but they lose their nutritional value unless they are fresh. Hydroponics and aeroponics are methods used to grow fresh crops using less space and resources and are already being experimented with on the International Space Station. Many designs do not need soil at all, only a packing material like cotton wool or coconut husks.

Some hydroponics designs which are simple to build at home include the bottle method. An example can be found here www.instructables.com/id/Hydroponic-Soda-Bottle-System/.



MARTIAN MEAL

There are some essential nutrients which humans need to survive - protein, carbohydrates, vitamins and minerals. The ideal meal for human survival would include all of these elements. Plants such as spinach are very easy to grow in artificial environments and are loaded with essential nutrients. We want our future astronauts to be fit and healthy and a good diet is the first step to building our future space explorers.

