

The Wootton Park Space Project



Title: Life on the International Space Station.

The International Space Station (ISS) is a space station in low Earth orbit (an average altitude of 400km/250 miles). It is a multi-nation project with contributions made by Canada, Japan, the Russian Federation, The USA, and eleven Member States of the European Space Agency (Belgium, Denmark, France, Germany, Italy, The Netherlands, Norway, Spain, Sweden, Switzerland and The UK).

But how do the astronauts survive in Space?

Here are a series of fun project ideas for you to take part in at home and experience the life of an astronaut:

Primary

There are lots of great projects that you can complete at home including:

- Build your own space craft
- Make a cloud mobile
- Make an Apollo moon capsule craft

Look on this website to get some ideas:

<https://www.nasa.gov/stem-at-home-for-students-k-4.html>

Primary and secondary

There is an activity booklet for you to complete with lots of different activities linked to the International Space Station.

Secondary:

Cleaning water activity

Clean water is essential for the survival of the astronauts so this activity will give you the opportunity to design and build a simple water filtration system using household items.

Create a permanent habitat on the Moon's surface

NASA is continuing to explore the surface of the moon and plans to create a long term human presence on the moon by 2024. In order for this to be successful a suitable lunar habitat needs to be

designed. You will need to take into account Moonquakes, what the astronauts will need to survive, the daily activities that they will be conducted and many other important factors when designing your lunar habitat.

Create a heavy lifting device to be used on the moon

In order to construct a habitat on the moon you will need to put large, heavy objects into orbit, in this project you will be designing and building balloon powered rockets to lift the largest payload possible.

Please use the additional pdf support materials for this project with the following titles:

ISS Activity booklet

Secondary- Cleaning water activity

Secondary- Heavy lifting rocket

Secondary- Lunar habitat