



St Chad's First School: Y4 Home Learning Projects: Sci-Fi

To support the learning in school please complete at least 3 of these activities over the course of this half term. You can choose to do one per week if you would like.

Download or loan from a library a sci-fi book.

Design /create your own planet.



Design/ create a vehicle that could be used to travel to or on an alien landscape.



Can you find out some amazing facts about space missions or space?

Did you know the Saturn V rocket, which took the Apollo Space flights to the moon, was powered by the largest engine ever built. It generated enough power to light the entire city of New York for 75 minutes!

The International Space Station (ISS) is a microgravity science laboratory which has been in orbit for over 8500 days. Can you learn some facts about it's purpose, design, occupants and life aboard the ISS.

[International Space Station | NASA](#)

[Live Space Station Tracking Map | Spot The Station | NASA](#)

Make an air powered rocket by following the instructions below. Adult help is ESSENTIAL with this project.

What are the longest rivers in the world?

Use Oddizzi to learn more about rivers and present your learning in a fun way ([Oddizzi Geography resource for primary schools](#) User name year4js, password year4js)

Practise your times tables on TTRS. Remember to practise in garage and jamming. Go to studio when you feel more confident and you may move up a rock status.

St Chad's First School: Y4 Home Learning Projects: Sci-Fi

Make an Air Powered Rocket

This activity is suitable for outdoor use. Please make sure you have a suitable area of space to work within and that the correct risk assessments are completed.

What you will need:

- A 2-litre water bottle.
- Suitable craft resources to make your bottle into a rocket.
- A cork (this needs to be pre-cut by an adult to ensure the needle will be able to go all the way through it).
- An air pump with a needle adapter (e.g. bicycle or football pump)
- A launch pad (e.g. a garden fork) to place your bottle on in preparation for launch.



Instructions:

1. Decorate your bottle to turn it into a rocket. It is a good idea to put fins on either side.
2. Push the cork into the neck of the bottle.
3. Pierce the cork with the needle adapter, ensuring the needle comes through on the other side.
4. Place the bottle onto the launch pad, bottle neck down.
5. Attach the pump to the needle adapter and begin to pump air into the bottle.
6. When the rocket bottle is full of air, it will launch into the sky.

Extension Activities:

- Can you find a way of measuring how high your bottle launches into the sky? Can you make it go higher?
- Fill your bottle with different amounts of water before pumping it full of air. What happens when it launches?