



STEM from Home Pack 6

Space!

Through space exploration, we have learned a great deal about planets, stars and our solar system. More than 5000 spacecraft have been launched into space since 1957. This includes spacecraft with humans on board, space probes and satellites.

This week, you are going to learn about space, researching key aspects of outer space and using your creativity to make virtual and model designs. Your tasks are to create your own virtual world using Scratch, conduct a space research project and build a model satellite.

This week's activity – Create your own World!

Introduction

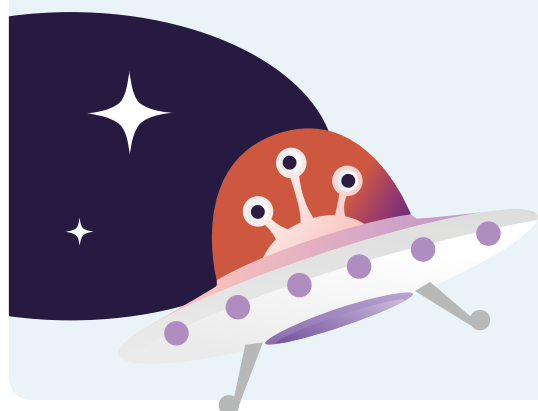
In this project, you'll learn how to create your own adventure game world with multiple levels to explore. [Access this activity.](#)

What you will need

A computer capable of running Scratch and Scratch 3 software (either [online](#) or [offline](#)).

What you will learn

In this activity, you will learn how to use conditional selection to react to key presses, how to use variables to store a game's state, how to use conditional selection based on the value of a variable and how to use lists to store data.



This week's bonus activity – The Big Space Research Project!

This week's bonus activity is to undertake the big space research project! You are going to research outer space and learn all about our solar system.

Research topics include:

Planets	Stars
Moons	Spacecraft
Satellites	

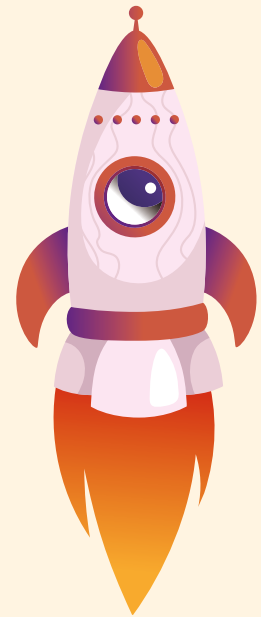
Access the [template for this activity](#).

What you will need

A computer capable of accessing the template and access to the internet.

What you will learn

In this activity, you will learn about the planets, stars and moons in our solar system. You will also learn what a satellite is, how they are used and the different type of spacecraft that have been used since 1957.



This week's Creative activity – Build your own Satellite!

A satellite is a man-made structure that orbits, or revolves around, a larger object in space. Satellites can be natural (such as the moon) or artificial (made by people). Most artificial satellites orbit Earth. Satellites are used to study the universe, help forecast the weather, transfer telephone calls and assist in the navigation of ships and airplanes.

This week's competition is to build and design your own satellite! Models can be made out of any materials you have lying around the house, including recycled cardboard, containers, bottles and any craft materials. Models need to have the following features: a body, a power source, scientific instruments, a communication device and an orientation finder.

Access the [guidelines for this activity](#).

Ask your parent/Guardian to upload pictures of your STEM creations to [Twitter](#), [LinkedIn](#) or [Facebook](#) using [#STEMfromHome](#) and [#ExperienceCGI](#), remember to tag us!

