The International Space Station

Christopher Edge's mind-blowing adventure, *The Jamie Drake Equation*, introduces us to the main character of Jamie Drake whose father is a celebrated astronaut. In the first chapter, we discover that Jamie's father is on the International Space Station that orbits the Earth, carrying out an important mission to search for alien life among the stars. Read on to discover more about the International Space Station in this engrossing fact file!

What is it?

First of all, the International Space Station (or ISS as it is better known) is an example of an artificial satellite, which means that it orbits the Earth from space. It does this at an altitude of between 330km (205 miles) and 435km (270 miles.) Can you think of an example of a natural satellite orbiting the Earth? That's right, the Moon! Moving on, the ISS is a joint project between several countries, including the USA, the UK and Russia, and its primary purpose is as a laboratory where many different tests and experiments are carried out. For instance, scientists study what happens to people when they live in space and the test results will be vital for the future because NASA – the USA's space agency – wants to send humans deeper into space than ever before. I'm not sure I would be courageous enough to sign up for these missions as I would definitely become homesick! Good luck to all those who do though!

When was it built/launched?

It's hard to believe but the International Space Station is now over twenty years old! Over 100, 000 people, sixteen nations and hundreds of companies collaborated on designing and building the various components for the ISS with an estimated cost of around 96 billion dollars. That's a staggering amount, wouldn't you agree? What then happened was that a Russian Proton rocket carried the first module of the ISS, which was named Zarya, into space on 20th November 1998 and this supplied propulsion, altitude control, communications and electrical power. Two weeks later, NASA launched a module called Unity attached to the space shuttle Endeavour and this module was equipped with all the resources that humans need for long-term survival. In other words, this includes eating, sleeping and – let's not beat around the bush – going to the toilet. That's right, even astronauts must go to the toilet!.