**Destination Space KS1**

**Duration:** 1 hour, **max capacity:** 35 students

Students will encounter the wonders of space flight and explore what it's like to live and work on the International Space Station. They will learn about the challenges of living and working in space, including controlling a floating object, launching a rocket, protecting themselves with a space suit, and catching a floating poo!

**Key Words:**
Space, Materials, Human body, Exploration, Gravity, Careers, Teamwork, Technology, International space station, ESA

**Learning objectives. Students will:**
- Learn about what it's like to live and work on the International Space Station (ISS).
- Establish that a large amount of energy and fuel is required to launch a rocket into space.
- Demonstrate the challenges of living in microgravity.
- Consider how the spacesuit design works to protect astronauts during a spacewalk.
- Astronauts sometimes have to perform spacewalks to fix parts.
- Understand how air resistance helps astronauts re-enter the Earth’s atmosphere safely using a parachute.

**Content. Students will:**
- Construct rockets and watch them launched under dramatically high pressure towards a target.
- Explore the experience and challenges of life in microgravity - maneuvering an object in mid-air and discovering how astronauts sleep and go to the toilet.
- Investigate different materials to design a spacesuit and an air supply to undertake a spacewalk to fix parts.
- Experience the force of air resistance underneath a giant parachute like the ones used to slow the capsule down.

**Curriculum Links:**
**Science: Working scientifically**
**Science**
Year 1

**Everyday materials**
Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.
Compare and group together a variety of everyday materials based on their simple physical properties.
Year 2

**Animals, including humans**
Find out about and describe the basic needs of animals, including humans, for survival (water, food, and air).
Identify that humans and some other animals have skeletons and muscles for support, protection, and movement.
Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.

**Uses of everyday materials**
Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper, and cardboard for particular uses.

**Forces**
Explain that unsupported objects fall towards the Earth because of the force of gravity.

**Potential Hazards and accessibility**
Students will handle latex balloons and hand-held blowers (supervised)