

Workshop 1 Think Like a Scientist!

Core STEM: SCIENCE, MATHS

Core Subjects: SCIENCE, MATHS, GRAPHING ECOLOGY PLANTS

Activity: Understanding and using the scientific method on your daily life. Can plants grow in Space?

General description: During this activity students will explore the different parts of the scientific method as they learn to think scientifically. Students will carry on their own experiments: first establishing a research question, a hypothesis, followed by testing and graphing their results. Finally, students will explore the fundamental requirements for life by conducting their own mini experiments growing plants. These experiments will dwell on what makes plants grow, not grow or grow better in different environments, and how this can be applied to space exploration and future space settlements.

Parts:

PART 1) Will introduce what means to be a scientist. Why we are all scientist in on own way and how science can help us make better decisions. Students will partake in different experiments aimed to test a hypothesis (i.e. which bubble-gum is better? which bubble-gum flavour last longer? Who is better at sports, etc). Students will we supported as they decide what variables to test, measure and graph. Students will then discuss their findings and reach their conclusions.

PART 2) Do plants need Soil? Do plants need water? Can we grow plants without soil? During this activity students will learn about soil and plant needs while they grow plants in different conditions in class. Student findings can be discussed at the beginning of the next workshop (or with the teacher). Students scientific work can be displayed in the school as a poster.

Space Theme Rationale: Students have started their training to become an space cadet/astronaut! But like many astronauts before them, they not only need to know how to fly a rocket. First, they need to know their science so they can make truthful discoveries and understand the world around them.

Core Concepts: The Scientific Method, How to conduct a fair Experiment, Fairness and Equality in Science

Core Skills: Working Scientifically. Investigating and experimenting, recording and analysing, evaluating.

Strands: Living Things