Year 5/6 pupils – Science Task Force; Extreme Earth

Date of course	Times	Venue	Cost	Max. places	Subject
Thursday 3rd December 2026	**9.30am – 3.30pm**	**Braeside Education Centre**	**£65**	**16**	**Science AGAT**

Course Details
EXTREME EARTH: The Future Is in Your Hands…
The world needs scientists. Are you ready for the challenge?

🌍 **WELCOME TO THE INTERNATIONAL EARTH SCIENCE TASK FORCE** 🌍
The year is 2050. The world is facing a series of increasingly complex environmental challenges. Extreme weather is becoming more frequent, water resources are under pressure, cities are struggling to cope with rising temperatures and scientists are searching for sustainable ways to protect the planet.
A new generation of scientists has been assembled to investigate the problems — and find solutions.
For one immersive day, pupils will become:
🌡️ **Climate Scientists**
💧 **Environmental Researchers**
📐 **Engineering Designers**
⚡ **Sustainability Specialists**

Working in scientific task forces, they will:

• Investigate how different materials absorb, reflect and transfer heat
• Use evidence from experiments to develop strategies for creating cooler, more resilient cities
• Design and test water filtration systems using limited resources
• Engineer flood-resistant structures and evaluate their effectiveness
• Investigate structural strength and stability before designing a structure capable of withstanding extreme weather
• Consider the advantages, disadvantages and trade-offs of different approaches to sustainability
• Analyse results, evaluate evidence and improve their solutions
• Present and defend their ideas as members of an international scientific task force

The challenges will not have simple answers. Teams will need to make decisions, test their ideas, learn from failure and use scientific evidence to justify their solutions.

The future of our planet is in their hands.

Guidance criteria for identifying participants

- Be keen and enthusiastic scientists
- Enjoy asking questions, investigating ideas and applying scientific knowledge
- Enjoy solving complex problems and thinking creatively
- Be confident working independently and collaboratively
- Be willing to test, evaluate and refine their ideas
- Enjoy practical, hands-on challenges and scientific experimentation
- Be able to explain their reasoning and support conclusions using evidence

Course Tutor
Kathie Cooke is a primary school teacher with a BA (Hons) from UWE with a Science specialism. She has over 14 years' experience, 11 of which were in an outstanding school, Level 5 TEFL qualification, 6 years private tutoring experience and drama and vocal leadership qualifications. She is passionate about teaching and strongly believes in making education immersive and engaging for young learners.

Kathie has a particular interest in the performing arts; acting in and directing a variety of shows, as well as a keen interest in science, mathematics and sustainability. She particularly enjoys creating challenging, immersive learning experiences that encourage children to think critically, apply scientific knowledge and consider how science and engineering can be used to solve real-world problems.

As a result of attending the course you will have:

- Investigate a range of scientific concepts through practical experiments and engineering challenges
- Develop a deeper understanding of heat, materials, forces, structures, water and sustainability
- Develop scientific enquiry skills, including making predictions, identifying variables, carrying out fair tests and analysing results
- Use evidence to draw conclusions and evaluate the effectiveness of different solutions
- Apply scientific knowledge to unfamiliar, real-world problems
- Develop critical-thinking, reasoning and problem-solving skills
- Understand that scientific and engineering solutions often involve compromises and competing priorities
- Develop confidence communicating, defending and improving their ideas
- Develop an excitement about science, engineering and future STEM careers

Students Should bring:

- Pens, pencils and a notebook
- Water bottle
- Clothes suitable for practical activities and outdoor break
- A willingness to experiment, question, challenge ideas and **think like a scientist!**