SBC

Foundation in STEM

COURSE OVERVIEW

12–16yrs

SBC at Eton College

At a Glance

Igniting a Passion for STEM

Our two-week Foundation in STEM course is designed for inquisitive minds eager to dive into the world of science and technology. This immersive programme introduces students to foundational concepts in STEM, offering insights into groundbreaking fields like robotics, coding, environmental science, and applied mathematics. Through interactive experiments and collaborative projects, students explore the power of STEM to shape and improve the world.

With a focus on practical learning, you'll delve into the latest advancements in technology and research. From building robotic systems to designing algorithms and solving engineering challenges, you'll engage in projects that foster creativity and innovation. Our course promotes a "learn by doing" approach, encouraging you to experiment, hypothesise, and solve problems in real-time.

By the end of the course, you'll be prepared to pursue your STEM passions with confidence, creativity, and a commitment to innovation. Join us at Eton College this summer to begin your journey into the world of STEM, and unlock the potential to become a problem-solver, an innovator, and a future leader in science and technology.

Sample Timetable

WEEK ONE TIMETABLE

	TUESDAY	WEDNESDAY	THURSDAY	SATURDAY	SUNDAY
8:45-9:00	Morning Assembly				
9:00-10:30	**Subject Lesson 1** Introduction to STEM. Discover how science, tech, engineering, and math shape our world.	**Subject Lesson 1** Get hands-on with experiments: make hypotheses, test ideas, and reveal cool science secrets.	**Subject Lesson 1** Learn the basics of coding by creating fun mini-programs.	**Subject Lesson 1** Dive into physics with hands-on activities that explore motion, forces, and energy.	**Subject Lesson 1** Magic with Maths: See how algebra and geometry solve puzzles and everyday problems.
10:30-10:50	Break				
10.50-12.20	**Subject Lesson 2** Introduction to Engineering: design, build, and test creative solutions to real-world challenges.	**Subject Lesson 2** Maths in action! Solve exciting STEM challenges using shapes, formulas, and calculations.	**Subject Lesson 2** Explore chemistry by mixing safe chemicals and creating colorful reactions in the lab.	**Subject Lesson 2** Decision-making workshop: practice making fair and effective group decisions.	**Time to Shine Ceremony**
12:20-13:20	Lunch				
13.20-15.00		**Subject Lesson 3** Media literacy: learn how to spot reliable sources and understand global news.	**Subject Lesson 3** Team building: work in groups to solve fun challenges and strengthen leadership skills.	**Subject Lesson 3** Introduction to public policy: explore how policies are made and how they affect us.	

WEEK TWO TIMETABLE

	TUESDAY	WEDNESDAY	THURSDAY	SATURDAY	SUNDAY
8:45-9:00	Morning Assembly				
9:00-10:30	**Subject Lesson 1** Conflict resolution: learn techniques for solving disputes and promoting peace.	**Subject Lesson 1** Global organizations: explore the UN, NATO, and groups that work on world issues.	**Subject Lesson 1** The power of voting: understand elections and the importance of participation.	**Subject Lesson 1** World history overview: major events that shaped our global landscape.	**Subject Lesson 1** Leadership through empathy: understand how compassion strengthens leadership.
10:30-10:50	Break				
10.50-12.20	**Subject Lesson 2** Current events workshop: discuss recent world events and what they mean for the future.	**Subject Lesson 2** Global health: learn about health issues and how countries respond to challenges.	**Subject Lesson 2** Social justice: explore fairness, equality, and standing up for others.	**Subject Lesson 2** Future of leadership: what qualities will tomorrow's leaders need?	**Time to Shine Ceremony**
12:20-13:20	Lunch				
13.20-15.00	**Subject Lesson 3** Debate skills workshop: learn to form arguments and engage in respectful debate.	**Subject Lesson 3** Global careers: explore exciting jobs that make a difference worldwide.		**Subject Lesson 3** Reflection session: look back on lessons learned and set personal goals for the future.	

Course Objectives

Foundation in STEM is a transformative programme designed for students aged 12-16 who are inspired by science and technology. At Eton College, we understand the importance of nurturing young scientists, engineers, and mathematicians in an increasingly digital and data-driven world. This course introduces essential STEM concepts and practices, equipping you with the knowledge and skills to explore a future in science, technology, and beyond.

Module 1

Exploring Core STEM Principles and Innovations

Delve into foundational science and maths, covering physics, chemistry, and statistics. Through hands-on experiments, discover how STEM innovations advance healthcare, environmental solutions, and technology.

Module 2

Engineering, Technology, and Problem-Solving Skills

Build engineering and tech skills through coding, robotics, and design. Engage in real-world projects that enhance analytical and creative thinking, addressing challenges from sustainable cities to medical advancements.

Module 3

Data Science and Digital Literacy

Explore data science fundamentals, including data analysis and programming. Gain critical thinking skills around data ethics and privacy, culminating in a project that demonstrates data's role in impactful decision-making.

Time to Shine

For your Time to Shine project, you'll step into the role of a STEM innovator, tackling a real-world problem or developing a technology-based solution. Whether you're designing an eco-friendly gadget, building a prototype robot, or creating an app to address a community issue, this project will culminate in a high-stakes presentation where you'll pitch your solution to a panel of peers and instructors.

Previous projects include:

EcoSmart City: Designing Sustainable Solutions for Urban Spaces

A project in which a student created an interactive model of an environmentally friendly city, focusing on energy efficiency, waste reduction, and public health.

This project provided students the opportunity to push boundaries, apply scientific principles, and showcase their skills in the STEM. It developed the ability to innovate, analyse, and think critically about the ways STEM can be a powerful force for change.

Our Approach to Your Learning

Designed to inspire critical thinking, hands-on discovery, and a sense of purpose in the world of science and technology. Our interactive lessons encourage teamwork, experimentation, and innovation, helping you develop essential STEM skills in a supportive and challenging environment. With guidance from experienced instructors, you'll gain the confidence and knowledge needed to pursue your STEM interests with passion and ambition.

Academic Content

20 hours of subject-specific academic content per week with a subject tutor, delivered through interactive and hands-on lessons.

English Level

Students require a minimum English level of B1+ to enrol onto this programme.

Secure your place

A booking can be made online on our website **summerboardingcourses.com**

Our programmes fill up fast so we recommend you book early to secure a space on our most popular courses. If you are booking on behalf of a family, please let us know at the time of booking.

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