

STEM Activity Residential

On behalf of **First Travel**



Education and School Travel

STEM residential are delivered over 2 nights / 3 days at over a dozen venues across England and Wales. Packages include 2 nights full board accommodation, return coach travel and an award winning series of STEM activities and team challenges.

All our activities focus around exciting and relevant STEM topics along with encouraging teamwork, developing communication skills, and making friends.

Each set of activities lasts around 3-4 hours and for your trip you can select 3 or 4 from the below depending on your trip. The activities are designed for learners aged 8-12 and can be adjusted to suit the timings and space available.

Contact details: First Education and School Travel –
Tel: 0203 467 2022 or email school.travel@firstbus.co.uk

Choose
3 or 4
activities

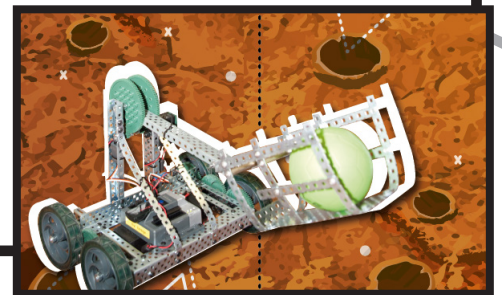
Robot Revolution (Science, Engineering, Technology, Computing)

Learners go on a journey of robotics and team discovery as they understand the steps in history that have led to the modern world of robotics, how and why we use them and how they can be programmed.

- Take control of our VEX® robots in the Mission on Mars communication challenge.
- Test circuit knowledge to build a series of increasing tricky circuits.
- Take part in a series of team games to explain coding.
- Programme a Lego® robot around a maze.

Requirements

- Room with open floor space and access to power.



Earth Discovery (Science, Geography, Engineering)

Learners will discover more about the world that we live in, from plants and animals to different habitats, before discovering how technology is enabling us to find ways to live on earth without causing damage.

- Select your exploration tools.
- Rotate around a series of stations to complete challenges and find out more about the planet (from deep sea to deserts).
- Build a survival station for one of the locations visited.

Requirements

- Room or outside space with tables and chairs.



Power Your World (Science, Geography, Engineering)

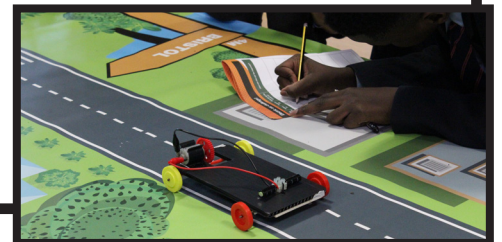
Learners will discover more about how our world is powered from renewable energy to powering our cars and appliances.

POWER

- Identify what needs power in our homes and how it gets there.
- Explore renewable energy by building and testing a wind turbine.
- How would you power a fantasy island with the different energy resources?
- Build and test an electric car to travel up the country.

Requirements

- Room with tables and chairs and power and space to lay out a 14m track.



Mind and Matter (Science, Mathematics)

This day draws on the science of sport, our minds and bodies. It is a great activity ahead of the journey back.



- Take on some mind games (riddles, illusions, logic puzzles and games).
- Get competitive in the science of sports interactive quiz.
- Get active by taking on a series of physical challenges and find out about your body and staying fit for life.
- Where possible we will finish with a walk around a local woodland and explore the sights and sounds of nature.

Requirements

- Some tables and chairs.
- Projector and screen.
- Open indoor or outdoor space.



Race to Construct (Engineering, Mathematics)

Are your learners' engineers of the future? Can they win the race to build the infrastructure solutions?

- Build a new railway line out of K'nex® and complete bonus challenges along the way.
- Use our robots to collect our materials before building a bridge capable of supporting your robot.

Requirements

- Large open floor space



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Team Challenges

In the evenings we can also provide team challenges.

Some examples include:

- **Life raft:** Teams race to make sure they all fit on the life raft (A3 piece of paper).
- **Shark infested custard:** Teams compete to problem solve a way to get their whole team across the shark infested custard using only 4 floating cookies!
- **The Scientist:** A problem solving challenge where the team must build a pyramid from “radioactive” paper cups using elastic bands and string.
- **Replication:** A communication challenge where teams try to replicate the arrangement of objects.
- **Penny in a cup:** A physical relay challenge where teams transport an object without using their hands.
- **Alphabet game:** Teams are given a category and have to think up items that fit the category beginning with each letter of the alphabet, points are awarded for unusual answers!
- **Elephant game:** A physical relay challenge where teams pretend to be elephants.

Example Timings

Day 1

1pm - 5pm

– STEM Activities

7pm - 9pm

– Team Challenges

Day 2

9.30am - 12.30pm

– STEM activities

1pm - 5pm

– STEM Activities or
Site-specific activities

Day 3

9.30am - 12.30pm

– STEM Activities

