



**Tour:** **BRITISH STEM**  
**Itinerary:** 9-days / 8-nights  
**Availability:** Year-round

## BRITISH STEM - LONDON, UNITED KINGDOM

Day	Morning	Afternoon	Evening
1	Travel overnight to London, United Kingdom		
2	Arrive London and transfer to Hotel, store bags and refresh	The Tower of London with International Activity Trail & Private Historical Tour	Tower Bridge Walk London Eye Welcome Dinner
3	Centre of the Cell / Queen Mary University of London with 2 Health Sciences Master Classes	Brunel University - Campus Visit with Immersive Dome & STEM Master Class in Robo-Coding, Physics & Mechanical Engineering OR Bridge Engineering	Dinner Jack the Ripper Walking Tour
4	L'oreal Young Scientist Centre & Design Workshop Lab - Choose from Forensics, Bacterial, Chemistry & More		Refresh Dinner
5	Hop On/Off Sightseeing Bus Tour & Thames River Cruise		Dinner
6	Thinkers in Education - Master Class on Forensics, Space Science or Survival		Travel to Warwickshire Dinner
7	Warwick Castle Experience	Travel to Bletchley Bletchley Park with Tour & Math Master Class	Return to Hotel Dinner
8	London Natural History Museum with private Zoology Collection Tour & Scientist Interview	The British Museum	Farewell Dinner Cruise on the Thames
9	Depart London for Home		



As with all sample itineraries, please be advised that this is an 'example' of a schedule and that the activities and hotels shown may be variable dependent upon dates, weather, special requests and other factors. Itineraries will be confirmed prior to travel.



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## Day 1

*Overnight flight; meals in flight*

Depart on your journey across the pond! Most groups will depart the USA in the evening hours for an overnight flight, but it will depend upon your origination and your flight routing. Dependent upon your air carrier, meals may be available for purchase or may be included. Best practice is for students to plan to purchase meals until your flights are confirmed and all inclusions are stated.



## Day 2

Dinner

*London...* As one of the world's top destinations, London is a bevy of English bobbies, an ocean of black umbrellas, and an unconquered continuance of more than 2,000 years of history. Now an uber-cool city, London remains history-steeped. There's sufficient antiquity and historic splendor around every corner... History collides with art, fashion, food, and good British ale. Londoners are fiercely independent thinkers so the creative milieu is naturally streaked with attitude. Architectural grandeur rises up all around you, ancient remains dot the city and charming pubs punctuate the Thames riverside. A tireless innovator of art and culture, London is a city of ideas, imagination, art and history all rolled into one. It's all here!



While English may be the national tongue, over 300 languages shape London's linguistic soundscape. These languages also represent cultures that season the culinary aromas on London's streets, the clothing you glimpse and the music you hear. It can seem like the whole world has come to town. Museums have collections as diverse as they are magnificent, while flavors at markets range across the gourmet spectrum. London's diverse cultural dynamism makes it quite possibly the world's most international city, while being somehow intrinsically British.

## *Did you know?*

- ✓ Most people have an impression that Big Ben is the name of the world-famous clock, or perhaps the tower that houses it. The name actually refers to the 13-ton bell. The tower is known as St. Stephen's Tower.
- ✓ The city that is presently known as London has gone through a variety of names during its history. At the time of the Roman Invasion, it was called Londinium. In Saxon times, it became known as Lundenwic. And during the kingdom of Alfred the Great, the city was known as Lundenburg.
- ✓ Her Majesty the Queen is not allowed to go into the House of Commons because she is not a commoner.
- ✓ Rumor has it that Windsor Castle is haunted by a range of ghosts, including King Henry VIII, Queen Elizabeth I, Mad King George, and Charles I.



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- ✓ About sixteen percent of the UK's restaurants are located in London, and there are more Michelin-rated restaurants in London than in any city except for Paris.
- ✓ The Queen's official residence, Buckingham Palace, was built in 1702... on the site of a notorious brothel!
- ✓ In England, people drive on the left side of the road...except for one road: Savoy Court in London. Here, cars are legally required to drive on the right; originally created in 1902 so that fancy folk could get straight out of their carriages into the Savoy Theatre. The law was never changed.
- ✓ Cab drivers in London are special. To become a taxi driver, they must pass 'The Knowledge Test.' Taking two to four years to study, they must memorize 25,000 streets and 20,000 landmarks.
- ✓ The London Underground (known as the Tube) is the oldest and longest metro in the world, with over 270 stations and 400 km of tracks.

# LONDON N

If flying from the Americas, groups participating in British STEM will generally have an overnight flight and arrive in the morning. After transferring to our hotel and checking-in (if available), we'll hit the ground running with an excursion to the Tower of London followed by an excursion to see the Tower Bridge, plus the London Eye.

***The Tower of London, International Activity Trail & Historical Tour*** – Officially Her Majesty's Royal Palace and Fortress of the Tower of London, the Tower of London is a historic castle located on the north bank of the River Thames in central London. Despite the Tower of London's grim reputation as a place of torture and death, within these walls you will also discover the history of a royal palace, an armory and a powerful fortress. Don't miss Royal Beasts and learn about the wild and wondrous animals that have inhabited the Tower, making it the first London Zoo. Discover the priceless Crown Jewels, join an iconic Beefeater on a tour and hear their bloody tales, stand where famous heads have rolled, learn the legend of the Tower's ravens, storm the battlements and get to grips with swords and armor!



***The Tower Bridge*** – From the high-level walkways, take in stunning panoramic views and experience the thrill of seeing London life through the Glass Floors. Follow in the footsteps of the unsung heroes of Tower Bridge while uncovering their stories. Soak in the atmosphere of the working Bridge in one of London's true hidden gems: the magnificent Victorian Engine Rooms.



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**The London Eye** – Astonish, amaze and excite pupils with an incredible perspective of London that is a history lesson, geography lesson, cultural lesson and a lesson in engineering and design. From every angle, the London Eye is an exceptionally useful and inspiring educational tool. This is because so many different disciplines went into its creation and there are so many ways in which it can be used to exemplify aspects of learning - whether in specific areas such as design, technology, architecture and engineering, or more broadly to promote numeracy and literacy, commercial or community issues.

Afterwards, we'll continue on to our hotel for our **Welcome, Safety & Orientation Meeting** and then have a relaxing dinner before getting caught up on rest for tomorrow's adventure.

*Please know that we are able to offer hotel classes to fit every budget. Accommodation options range from hostel-type accommodation (which are very good in the UK), through 4-star properties. Please let us know your preference. Below is an example of a moderate 3-star property.*



**Sample Hotel – Bayswater Inn London** - This hotel is located on the edge of Notting Hill, one of London's trendiest districts. You'll be within easy walking distance of Hyde Park as well as Bayswater and Queensway stations, putting you a brisk tube ride away from the sights of central London. There are shops and places to eat nearby, and Bayswater Inn is convenient for Portobello Road Market and shopping at Knightsbridge.

**Welcome, Safety & Orientation Meeting** – This is our group meeting to set your team up for success. Your Ambassador will go over everything from safety to weather, your itinerary, plus a fire drill. Have questions, want to celebrate a birthday or want to add something to your itinerary? Your Ambassador is appointed to serve your group throughout your stay in the United Kingdom.



### **Day 3**

Breakfast, campus lunch & dinner

Rise and shine London! After breakfast at our hotel, we'll head to Queen Mary University of London for a deep dive into cellular medical science.



**Centre of the Cell / Queen Mary University of London** – Centre of the Cell is a science education center at Queen Mary, University of London. It is the first science education center in the world to be located within working biomedical research laboratories. They have two distinctive learning Pods – The Blizzard Institute in Barts



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and the London School of Medicine and Dentistry - so visitors can see research scientists at work as they enter. Once inside, students will learn about the amazing world of cells, the human body and the latest medical research.

**Master Class Options, pick two out of three.** Two options are workshops and one is a show; all are approximately 1-hour in length. Please understand that programs are only offered during UK term times so may not be available on certain dates.

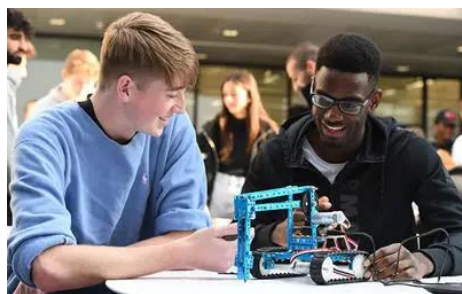
**Careers in Science & Health** - Find out about careers in science and health with this interactive workshop. The workshop will encourage students to think about the huge range of careers in science and health, what they involve, how to match their skills and interests with their choice of subjects and careers, and provide advice and information about how to build a CV/resume or university application. The workshop consists of five stations, through which students move over the course of the session. Two stations give students the chance to meet a working scientist and a medical or dental student.

**Invasion! Infection and Immunity** - Students will explore core concepts in the field of Immunology in this interactive workshop. Discover how we can treat cancer using immunotherapy, and how antibiotics become resistant; put your knowledge to the test in a quiz and meet an immunologist. The workshop consists of five stations through which the students move over the course of the session. The Immunologist is a Queen Mary University of London scientist and outreach volunteer, based at the Blizard Institute.

**Ingenious Genes** - Uncover the wonderful world of genes in the University's Ingenious Genes show. You'll discover how our 20,000 genes make proteins, find out how human genes differ in a tastebud test, get to grips with meiosis, search for some human knockouts, and find out all about cutting-edge genetics research.

In the afternoon, we'll have lunch at the Centre of the Cell before traveling to Brunel University.

**Brunel University** - Brunel University London is a public research university located in the Uxbridge area of London. It was founded in 1966 and named after Isambard Kingdom Brunel, the Victorian engineer and pioneer of the Industrial Revolution. The university is considered a British plate glass university and is organized into three colleges: the College of Business, Arts and Social Sciences; the College of Engineering, Design and Physical Sciences; and the College of Health, Medicine and Life Sciences.



While here, students will have an opportunity to visit the Immersive Dome and participate in a STEM Master Class.

**Immersive Dome** - The immersive dome is loaded with award-winning educational films with high quality graphics and HD projection systems. The video's cover a range of topics from space travel to civil engineering



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of the future. There are only a handful of spaces like this in the UK, with Brunel's hoping to help inspire the next generation of innovators.

Master Class options include:

### **Robo-Coding – Ozobots & Sphero**

Ozobots are small, line-following robots that allow students to learn coding in a fun and hands-on way. Students are encouraged to learn through trial and error, placing the correct sticker on the map so that the Ozobot can enter the 'Drop-Off Zone'. Once they understand how to operate the robot, it's competition time. The program aims to show that anybody can learn to code, regardless of age or ability.

Sphero SPRK + is designed to inspire creativity. They can roll, jump and change color. For the more curious students, the robot itself has a translucent shell which allows the user to see how the mechanisms work together to create movement. Not only can you expect to learn block-based coding, but you will also have to consider angles, bearings and speeds in order to follow shapes drawn out on the floor. To finish the session, we have a zombie challenge, where one student starts with their light off and has to collide into the other spheros to turn them into zombies until the time runs out. If all of the lights are off by the end, the zombie wins.

**Model Car Building** - Principals of physics and mechanical engineering come together in this Model Car Workshop. In order to go far, the cars must go fast. This is possible due to the conversion of energy and through aerodynamic designs. Students will compete in teams to see which model car will go the furthest, testing their teamworking abilities and knowledge of mechanics.

**Chocolate Welding** - Bridges can be made from many different materials: bamboo, concrete, steel or stone. They can even be made of chocolate! The Chocolate Welding Workshop allows students to plan and build a weight-bearing structure using only 4 bars of chocolate and a heat source. By utilizing forces such as compression and tension, teams battle it out to create the strongest possible bridges which are then tested to destruction. Creativity is key as prizes are awarded for the best-looking bridge as well as the most functional.

This evening we'll have an early dinner and then set off in the footsteps of Jack the Ripper!



***Jack the Ripper Walking Tour*** – As twilight unfolds across the sinister thoroughfares of London's East End and as the shadows lengthen across its cobblestone courtyards and tucked away passageways, this tour sets off into the dark alleyways and darker recesses of Whitechapel to follow the ripper's blood-stained trail. Step-by-bloodcurdling-step you will find yourself spirited back in time to the dark autumn nights of 1888 when Jack the Ripper prowled the very streets and people walked in fear!

### **Day 4**

Breakfast, boxed lunch & dinner

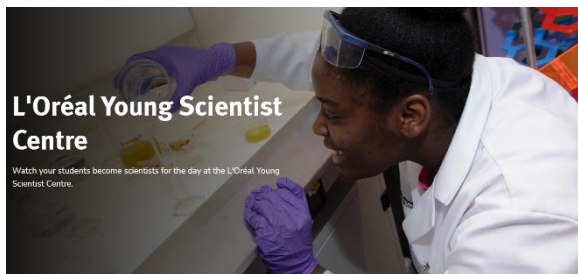
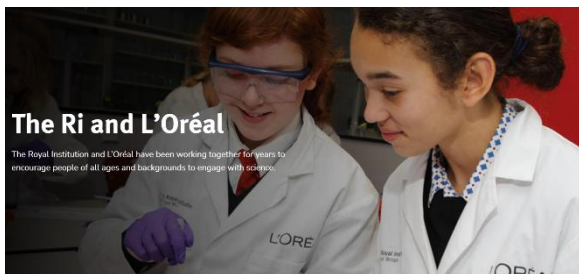
Hello United Kingdom! Today is going to be incredible as we work with scientists from L'oreal!



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**The L'oreal Young Scientist Center** - The LYSC is an imaginative science laboratory at the heart of the Royal Institution, where students and their teachers can experiment and explore science and technology outside the classroom. In an LYSC workshop, students become a scientist for the day, testing their own ideas by designing creative experiments. The whole experience ignites a passion for scientific discovery and encourages curiosity-driven learning. Students are given the time and space to experiment. Not constrained by time to produce a 'right' result, students work as professional research scientists do: in response to their observations, encouraging curiosity-driven learning. And just as in the best research laboratories, students have access to advanced technology and experiments outside the remit of the normal school curriculum, making this a definite excursion to remember.



**Design Workshops** are generally for up to 24 students so multiple workshops may be required based on the size of your group. Lab options Include:

**Spectacular Color Chemistry** - Students will discuss how color arises through the removal of specific wavelengths of light, and both additive and subtractive color mixing. The students then discover how chemical bonding can lead to color, and they produce both natural and synthetic dyes. The final part of the workshop sees the students design their own colorimetry experiment to determine the unknown concentration of a dye sample. 4 hours including a 30-minute lunch break.

**Forensics** - Learn the basics behind the forensic applications of DNA and help to solve a 'murder'. This workshop is a great introduction to genetics and forensic analysis, using processes that many students do not have practical exposure to before attending university. During the workshop, students will evaluate a crime scene and analyze suspect DNA samples, using modern molecular biological techniques including restriction digests and gel electrophoresis. 4 hours including a 30-minute lunch break.

**Bacterial Evolution** - Step into the role of a clinical bacteriologist and use research-grade laboratory equipment to investigate DNA samples from new outbreaks of bacterial disease. Students use restriction enzyme digests and gel electrophoresis to analyze and learn about DNA, restriction enzymes and evolution. At the end of the workshop students look at the DNA evidence and decide what advice to give their colleagues at the scene of the outbreak. 4.5 hours including a 30-minute lunch break.

**A Question of Taste** - Determine your phenotype and genotype for a taste receptor that we share with our primate ancestors. In this genetics workshop, students will extract and test their own DNA using modern molecular biological techniques to compare their phenotype with their genotype. The workshop demonstrates how we (and chimpanzees) have evolved to lose the ability to taste phenylthiocarbamide, a chemical found in vegetables such as broccoli. The students will perform a polymerase chain reaction (PCR), restriction digests and gel electrophoresis in the analysis of their DNA. 5 - 6 hours including a 30-minute lunch break.



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When finished with our Design Lab, we'll have free time to refresh or go exploring! Dinner will be at our hotel this evening.

### **Day 5**

Breakfast & dinner

Rise & shine England! Today is a day to sit back and have fun exploring London. We'll take the London Hop-On/Off Sightseeing Tour complete with a cruise on the Thames. Dinner will be served locally.

***The Original Sightseeing Tour*** - The Original Tour is the essential introduction to London. Experience the magical sights and sounds of London in comfort and safety aboard this hop-on / hop-off bus tour. From historic sites and attractions, to some of the most famous views in the world, this tour will take you where you want to go. With over 80 stops and 3 main sightseeing routes, this tour is the finest way to see London and her landmarks. Sit back, relax and take in the sights, sounds and iconic views of the city, both ancient and modern.

**BEST PRACTICE:** Break into smaller groups of 5 – 10 people to enjoy your day.



***Thames River Cruise*** – In conjunction with your hop-on/hop-off sightseeing tour, your ticket will also include a Thames River Cruise. See London from a fresh perspective, and sail along the River Thames! Cruises depart from Westminster Pier (Big Ben) and the Tower (of London) Pier. The passes are valid within the same 24 hours as your bus ticket. Commentary is generally available in English, French, German, Japanese, Mandarin and Spanish.

### **Day 6**

Breakfast & dinner

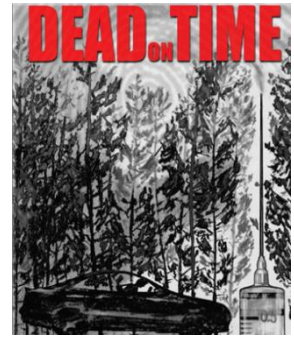
Good morning Great Britain! We'll get to enjoy a bit of free time this morning before joining the team at Thinkers In Education for a fabulous Master Class today.

***Thinkers in Education*** – This group designs and delivers specialist Master Classes to inspire and challenge students through exciting STEM activities. Their 'Adventure, Thriller and Crisis' themed activity days place students in the heart of an exciting story and unlock unique opportunities to introduce time-effective, exciting and emotive learning experiences. The level of engagement is extraordinary! Deeply immersive 5-hour sessions develop a huge range of creative and critical thinking for up to 36 pupils.

Master Class options include:



**CSI DEAD ON TIME** - This CSI workshop provides an extraordinary learning experience in which your students will use the best forensic science equipment and cutting-edge science techniques. Pupils will need to apply their best problem solving skills to uncover twists, turns and shock revelations in a case that can only be solved with clear critical thinking. They will be given exceptional training as they attempt to uncover the truth in a thrilling and complex mystery. Participants will get a taste of real-life forensic science and an exposure to the wider career options available in criminal investigative teams. They will harvest, process and analyze the evidence as a CSI unit - learning techniques from the beginnings of forensic science through to present-day DNA fingerprinting in order to reach conclusions that fit the evidence.



**TARGET: MARS SPACE SCIENCE** - Target:Mars is a highly specialized STEM experience. It is game-like in style, pitting teams of students against one another in a race to have the technology, skills and knowledge to colonize Mars. The event teaches players to use techniques and equipment used in research laboratories around the world as they learn to analyze Mars soil samples, engineer prototype vehicles and arrange emergency blood transfusions! Imagine competing nations, life and death situations (simulated!), money management, engineering, science, mathematics, team building and functional skill development.



**BUNKERED - CRISIS MANAGEMENT** - Some of the most emotive, dramatic and exciting movies are disaster movies! It is the best way to imagine the crisis situations faced in arguably the most challenging program offered here. Bunkered combines creative, critical and strategic thinking with science, math, technology and citizenship. An asteroid, as monitored by the real-life NEO program, is hurtling toward Earth. Our governments need to take action and plan to try to save lives, but what factors will influence their decisions about who to save and how to do it? Teams of students represent different countries solving these problems. They will need to finance and design the bunkers that will bury selected members of society in a bid to keep them alive. But who do they try to save? Participants need to consider job types, skill-sets, ages, genders and genetics in order to populate the bunkers. Then they represent these people, in their struggle to survive, when the asteroid hits!

After our Master Class, the day is ours to enjoy!

### Day 7

Breakfast & dinner

Rise & shine London! Today will be an early start but promises to be an outstanding day! We'll travel to Warwickshire first for an amazing castle visit! In the afternoon we'll head to Bletchley Park for a code-breaking afternoon before finalizing our day with travels back to London.

**Warwick Castle** - Experience one thousand years of jaw-dropping history at *Warwick Castle* - great battles, ancient myths, spellbinding tales, pampered princesses, heroic knights. Warwick Castle is one of the most famous and daunting castles in the world; a medieval castle developed from an original built by William the Conqueror in 1068. Warwick is the county town of Warwickshire, situated on a bend of the River Avon. An audio guide is included for all participants.



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**Bletchley Park Tour & Master Class** – Discover the incredible achievements of Britain's World War Two Codebreakers, in the place where it happened. Immersive films, interactive displays, museum collections and faithfully recreated WW2 rooms will guide you on a journey to discover the past at Bletchley Park. Exhibitions, set within beautifully restored historic buildings, tell the story of this once top-secret operation. Find out more about the brilliant minds and complex machines that made this vital work possible, and discover the global impact Bletchley Park had on the outcome of WW2. Master Classes are available for Math, History, Geography & Computer Science. Teachers will select their option prior to travel. Options include:



**Codes & Ciphers** - From Ancient Greece to the modern day, people have been using increasingly complex codes and ciphers with the intention of communicating secretly and keeping information secure. Enigma was one such cipher. Students will enjoy the rare opportunity to use a genuine Enigma machine as well as encountering a range of historical codes and ciphers as they work together to decipher messages in order to solve a puzzle. This session includes an Enigma machine demonstration. During this session students will:

- ✓ Increase their knowledge of codes and ciphers and their uses throughout history.
- ✓ Develop their understanding of the role that ciphers played during WW2, with specific reference to the Enigma machine and the wider operations of Bletchley Park.
- ✓ Use and develop team working, problem-solving and mathematical thinking skills, applying them to a practical codebreaking task.

**Story of Enigma** - The German Military believed the Enigma cipher was unbreakable. They were wrong, but the Codebreakers were only able to break Enigma because of human error, complacency and predictable message formats. Students will examine a genuine Enigma machine to figure out for themselves what made Enigma such an effective cipher at the time and calculate the exact number of possible key settings per message. This session includes an Enigma machine demonstration. During this session students will:

- ✓ Learn about and understand the operation, use and purpose of Enigma machines in WW2.
- ✓ Work together to develop and apply their mathematical skills and knowledge to calculate the number of possible key settings per message for a standard army Enigma machine.

**Breaking Lorenz** - More effective but less well-known than the iconic Enigma machine, Lorenz was the cipher of the German High Command. Fiendishly difficult, the Lorenz cipher seemed impossible to break, but Bletchley Park Codebreaker John Tiltman's inspired breakthrough paved the way for other codebreakers to



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unlock its secrets. His thought process is laid bare, and students will engage with a series of tasks of increasing complexity designed to give them a full understanding of Tiltman's break and some of the secrets of this machine, including its use of binary operations to generate many key settings that dwarfed that of Enigma. During this session students will:

- ✓ Develop their knowledge and understanding of ciphers used in the past including those during WW2.
- ✓ Understand the number of possible settings for a Lorenz machine and come to recognize the scale of the problem for Codebreakers in WW2.
- ✓ Understand how a key logical step contributed to the breaking of a WW2 cipher, using ideas related to binary addition, the XOR operation and common language patterns.
- ✓ Work through a problem-solving procedure collaboratively based on real historical events.

**Interception to Intelligence: Battle of the Atlantic** - It is 1941 and the Battle of the Atlantic is at its height. Numerous convoys of essential supplies are being sunk by German Wolf packs and Britain is close to surrender. In the role of codebreakers, students will intercept, decipher and translate German Naval communications in order to plan a strategy to get the next convoy safely to Liverpool. This session includes an Enigma machine demonstration. During this session students will:

- ✓ Develop their knowledge and understanding of WW2 events and the role of Bletchley Park in the Battle of the Atlantic.
- ✓ Briefly describe the process of decryption at Bletchley Park, from when a message is first intercepted until the intelligence is used.
- ✓ Apply team working, problem-solving and strategic thinking skills to obtain and apply scenario-based intelligence.

**Interception to Intelligence: D-Day** - It is the early hours of 6th June 1944. Weather prevented Operation Overlord commencing in the early hours of June 5th so today is the best, and perhaps last, chance the Allies have of beginning the invasion of German-occupied Western Europe. Numerous deception plans have been put into place to fool the enemy and protect Allied troops. In the role of codebreakers students will intercept and decipher German communications in order to decide if the deception plans have been successful and whether it is safe to proceed with the invasion. This session includes an Enigma machine demonstration. During this session students will:

- ✓ Develop their knowledge and understanding of WW2 events and the role of Bletchley Park in the D-Day landings.
- ✓ Briefly describe the process of decryption at Bletchley Park, from when a message is first intercepted until the intelligence is used.
- ✓ Apply team working, problem-solving and strategic thinking skills to obtain and apply scenario-based intelligence.

**Personal Cyber Security** - Our lives are becoming ever more digitally connected. Students are making their way into this brave new world but how prepared are they to do this in a way that keeps their personal data and devices secure? Through discussion, interactive demonstrations and practical activities, students will:

- ✓ Consider their individual digital world – looking at the devices, apps and data they value.
- ✓ Identify where weakness in their personal cyber security exist and how criminals might exploit these.
- ✓ Learn practical ways to improve their cyber security.
- ✓ Create a plan of action that is unique to them.

**Data Protection by Design** - This workshop has been designed for advanced Computer Sciences students. Modern cyber products can collect unfathomable amounts of personal data – often without the user's knowledge or understanding. But just because computer scientists can, it doesn't necessarily mean that



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they should. In this workshop, students will be introduced to the concept of Data Protection by Design – a philosophy of integrating user privacy at the conception of a new product. Through discussion, interactive demonstrations and practical activities, students will:

- ✓ Understand the principles of Data Protection by Design
- ✓ Debate the ethics of existing ‘controversial’ cyber products
- ✓ Integrate Data Protection by Design into the development of a new cyber product

**Past, Present and Future Encryption** - This workshop has been designed for advanced Computer Science students. Throughout history people have used cryptography to keep data secret. But as Bletchley Park’s wartime work proves, seemingly ‘unbreakable’ encryption systems can be broken. So how can computer scientists use cryptography to keep data safe? Through discussion, interactive demonstrations and practical activities, students will:

- ✓ Consider the types of cryptography used by Germany during World War 2 and the weakness in German ciphers.
- ✓ Learn the principles that have led to secure modern-day encryption.
- ✓ Send a message using the symmetrical and asymmetrical methods used by modern end-to-end encrypted messaging services.
- ✓ Discuss the future of cryptography with quantum computing on the horizon.

When we finish our program, we’ll head back to London to settle in to our hotel and have dinner.

### **Day 8**

Breakfast & dinner

Good morning London! After breakfast at our hotel, our final day will be spent at two amazing London Museums followed by a magnificent dinner cruise on the Thames.

**The London Natural History Museum** - Travel through 4.6 billion years of our planet's history and help protect its future. Find answers to your big nature questions. Delve into stories about our research, our scientists and the collections we care for. Uncover the history of life on Earth, from the smallest insects to the largest mammals. Dependent upon dates, your visit may also include a Spirit Collection Tour plus a Meet the Scientist talk.



**Spirit Zoology Collection Tour** - Go behind the scenes with knowledgeable Learning Facilitators for a look at the Museum's fascinating zoology collection that is preserved in spirit. As we explore some of the Darwin Centre's 27 kilometers of shelves, you'll encounter numerous treasures hidden among the 22 million animal specimens housed here. You'll meet Archie, the 8.62-meter-long giant squid, view specimens collected by Charles Darwin himself and learn more about cutting-edge research.

**Meet the Scientist Talk** - These live talks are hosted by a Science Communicator who will interview one of the scientists who works at the Museum. This event is an ideal opportunity for students to meet and ask questions to a working scientist and discover how science works in a real-world setting. Discover more about the scientist's research and how they use the Museum's vast collections to answer big questions about the planet. Students will also be able to ask about careers in science and hear about



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Bluffton, SC 29909 USA  
P: 984.223.9866  
www.HammockExpeditions.com  
www.STEMStudyTours.com



the scientist's own experiences of science at school and beyond. A range of different topics are covered depending on the scientist's area of expertise.

***The British Museum*** - The British Museum is a public museum dedicated to human history, art and culture. Its permanent collection of eight million works is the largest in the world, documenting the story of human culture from its beginnings to the present. The museum was established in 1753, largely based on the collections of the Anglo-Irish physician and scientist Sir Hans Sloane. It first opened to the public in 1759, and the museum's expansion over the following 250 years was largely a result of British colonization and resulted in the creation of several branch institutions, or independent spin-offs. Within its doors you'll find treasures including the Greek Elgin Marbles, Egyptian Mummies, the Winged Lions of Nimrud and the Egyptian Rosetta Stone.



***Farewell Dinner Cruise on the Thames*** - Glide along the River Thames and immerse yourself in the magic of London's skyline as it sparkles under the night sky. Indulge in a sumptuous meal of traditional British flavors, meticulously crafted by skilled chefs to tantalize your taste buds. As you savor each dish, enjoy uninterrupted views of London's most famous landmarks, including the Tower Bridge, the Shard, and the Houses of Parliament. Be entertained by London's finest performers adding a touch of glamour to your farewell dining experience.

### **Day 9**

Breakfast (dependent upon departure time)

Good morning United Kingdom! After breakfast at our hotel and dependent upon flight times, we'll pack-up and wave goodbye to our new friends as we head to the airport to travel home, taking away memories that will last forever.

*Cheers!*



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# BRITISH STEM

**Minimum Booking Numbers:**

20 students

**What's Included:**

Roundtrip international flights  
7-nights' accommodation in the London-metro area  
Breakfasts and dinners daily starting with dinner on arrival and ending with breakfast on departure (dependent upon departure time)  
3 lunches – Days 3, 4 & 7 (packed lunches)  
Airport transfers & tube/metro tickets  
Tower of London excursion with Activity Trail & Historical Tour  
Tower Bridge – Walk & Exhibits  
The London Eye  
Centre of the Cell at Queen Mary University of London + 2 Health Science Master Classes  
Brunel University Campus Visit with Immersive Dome experience & Master Class in Robot-Coding, Physics & Mechanical Engineering or Bridge Engineering  
Jack the Ripper Walking Tour  
L'oreal Young Scientist Centre & Design Workshop Lab  
Hop On/Off Sightseeing Bus Tour  
Thames River Sightseeing Cruise  
Thinkers in Education Master Class in Forensics, Space Science or Survival  
Warwick Castle experience with Audio Guide  
Bletchley Park Tour & Codebreaker Master Class  
London Natural History Museum with Zoology Collection Tour & Scientist Talk  
The British Museum  
Farewell Dinner Cruise on the Thames  
Personal Ambassador  
24-hour emergency cover

**What's Not Included:**

Fully comprehensive insurance (**mandatory**)  
Transfers to/from home airport  
Baggage costs, pay directly to airline if required  
Baggage handling - each student should be able to pull their own suitcase  
Transportation for activities not shown in the itinerary  
Lunches or snacks other than what is shown above at mealtimes  
BEVERAGES –table water is provided at restaurants; each participant will be able to purchase independent beverages at meal times  
Cost of passports nor required visas  
Cost of inoculations or medication required for travel  
Sightseeing / Entertainment options not shown  
Hotel incidental deposits & bills – mini-bar, convenience mart, etc.  
Any gratuities – drivers, hotel services, tour ambassador  
Credit card fees if individuals wish to pay via credit card instead of ACH (online check)

As always, our staff are always available to you to answer any questions you may have regarding programming. If we may serve you in any way, please do not hesitate to contact us.



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