



## Summer Camp Programmes 2019

- Baden-Powell House, 65-67 Queens Gate, opp. Natural History Museum, London SW7 5JS
- Swiss Cottage Library, 88 Avenue Road, London NW3 3HA

5-9 Aug	<b>The Science of Seas and Oceans: Whales, Sharks, Rays and much more!</b>
12-16 Aug	<b>Engineered! The Journey from Wheels to Rocket Engines</b>
19-23 Aug	<b>Science Geniuses: Great and fearless Men &amp; Women in Science who changed the World?</b>
27-30 Aug	<b>Biochemistry: Molecules and Elements and how they work</b>
2-4 Sep	<b>Fascinating Zoology: Animals and Ecosystems</b>

**SUMMER CAMP WEEK 6: Engineered! The Journey from Wheels, Robotics to Rocket Engines**  
Monday to Friday, 12-16 Aug 2019, daily Monday-Friday, 9.30-3.30 (8.45am free early drop-off), 4-7 and 8-12 years  
To register: [https://www.littlehouseofscience.com/holiday\\_workshops](https://www.littlehouseofscience.com/holiday_workshops)

### Day 1:

- Engineering and problem solving
- How simple machines changed our life
- Cogs and wheels
- The invention of cars

### Day 2:

- Leonardo Da Vinci, catapults and divers
- How to build dams and why we need them
- The challenge of building tall tower
- How architectures work with the engineers

### Day 3:

- The physics of bridges
- How to build tunnels
- Kingdom Brunel, the great engineer
- Property of materials

### Day 4:

- Elon Musk/Jeff Bezos and the future science of rockets
- Nikola Tesla and his engineering projects
- The invention of the telephone
- Stephenson and the first railways



**Day 5:**

- The introduction in Robotics
- Amazing new materials
- Engineered by nature
- Maths in nature
- DNA and Bio-engineering

**SUMMER CAMP Week 7: Science Inventors&Geniuses: Great and fearless Men & Women in Science who changed the World**

Monday to Friday, 19-23 Aug 2019, daily Monday-Friday, 9.30-3.30 (8.45am free early drop-off), 4-7 and 8-12 years  
To register: [https://www.littlehouseofscience.com/holiday\\_workshops](https://www.littlehouseofscience.com/holiday_workshops)

**Day 1:**

- Franklin, Crick and Watson and the secret of DNA
- Stephen Hawking and the black holes
- Isaac Newton and his laws of motion and optics

**Day 2:**

- Nikola Tesla and the giant thunder collector
- Katherine Johnson and the rocket science
- Archimedes and the crown challenge
- Mary Anning's fossils

**Day 3:**

- Alessandro Volta and the first battery
- Robert Hook and the miraculous microorganisms
- How Edward Jenner, Alexander Fleming and Louis Pasteur saved the world
- Elon Musk and the exploration of Mars

**Day 4:**

- Charles Darwin and the survival of the fittest
- Inge Lehman and the science of earthquakes
- Alfred Wegener and Pangea
- Rachel Carson or how to take care of our planet

**Day 5:**

- Galileo Galilei, Nicolaus Copernicus and the search for truth
- Dorothy Hodgkin and the world of crystals
- Leonard da Vinci and the secret of flight
- Kingdom Brunel and his big engineering dreams



## Science Camp Week 8: Biochemistry: Molecules and Elements and how they work

Tuesday to Friday, 27-30 Aug 2019 (4 days), daily Tuesday-Friday, 9.30-3.30 (8.45am free early drop-off), 4-7 and 8-12 years, to register: [https://www.littlehouseofscience.com/holiday\\_workshops](https://www.littlehouseofscience.com/holiday_workshops)

### Day 1:

- What are atoms and molecules
- How Alchemy became Chemistry
- The quest for elements and compounds
- Elements in our bodies
- Water Cycle

### Day 2:

- The state of matter
- What is density
- All about liquids and non-Newtonian Liquids
- Dissolving versus melting
- The story of hydrogen (H<sub>2</sub>O)
- Chromatography

### Day 3:

- Temperature: heating and cooling down
- What are chemical reactions?
- The adventure of carbon
- Acids and bases

### Day 4:

- Reversible/Irreversible Reactions
- The world of crystals
- DNA, Rosalind Franklin, proteins and enzymes
- Marie Curie and her discoveries
- What is air made from?
- Property of materials and how new materials change our lives



## SUMMER CAMP WEEK 9: Fascinating Zoology: Animals and Ecosystems

Monday to Wednesday 2-4 Sep 2019 (3 days), daily Monday-Wednesday, 9.30-3.30 (8.45am free early drop-off), 4-7 and 8-12 years; to register: [https://www.littlehouseofscience.com/holiday\\_workshops](https://www.littlehouseofscience.com/holiday_workshops)

### Day 1:

- Zoology, diversity of the animal world
- Classifications: Vertebrates and invertebrates
- Skeletons vs exoskeletons
- Water Bears, amoebas and other extremophiles

### Day 2:

- Animal Superpowers
- Bats, Dolphins and echolocation
- Bees, snakes, shrimps and their amazing vision
- Octopuses and other masters of disguise

### Day 3:

- What are ecosystems?
- How do animals grow?
- Fantastic insects and why they are important?
- How birds fly?