



Winter Wonder Physics Science Camp

Mon-Wed, 13-22 December 2021, daily from 9.30-3.30

Book all 8 days or single days! (free early drop-off from 8.30am).

Location: Holiday Inn Kensington Forum, Courtfield Road Entrance, London SW7 4DN,
(2 mins Gloucester Road Tube Station)

Age-adjusted Content & Experiments for 4-7 and 8-12 years

Day One, Monday, 13 Dec 2021: North Pole versus South Pole

- Glaciers and Icebergs
- **The Scientific Story of two Poles**
- How Penguins can Teach us about Entropy
- The Flora and Fauna of Tundra

Day Two, Tuesday, 14 Dec 2021: Help Santa's build a New Sleigh

- **Hot Air Balloons: How Do They Work, and Can Santa lift all the Gifts on a Hot Air Balloon?**
- The Age of Airplanes
- Jet Propulsion
- Re-design the Sleigh: Solve Problems Like an Engineer

Day Three, Wednesday, 15 Dec 2021: The Temperature Physics

- What does Warm and Cold-Blooded mean?
- How Humans Survive the Cold
- **Biomimicry: What Can We Learn from Polar Bears?**
- Buildings in the Arctic

Day Four, Thursday, 16 Dec 2021: Crystals, Magnets and Light

- **Magnetism: The Hidden Attraction**
- Discover the Northern Lights
- Who are the Arctic Scientists?
- The Science of Snowflakes

Day Five, Friday, 17 Dec 2021: Discover Antarctica

- Water Cycle in Arctic
- **Polaris and Other Giant Stars**
- Ozone Hole and Atmosphere of Antarctica
- The Future of Antarctica



Let's Celebrate the Greatest Minds of Science Who Changed the World

The next science camp days are designed to familiarise young scientists with the work of some of the greatest scientists and their fascinating discoveries. Galileo Galilei, Isaac Newton, Robert Hook, Archimedes, Charles Darwin, Albert Einstein, Katherine Johnson, Louis Pasteur, Rachel Carson, and others. We will learn about brilliant minds and Eureka moments behind the most important scientific breakthroughs: atoms, DNA, evolution, forces, electricity, mechanics, gravity, medicine, light, space travel and much more!

Day One, Monday, 20 Dec 2021

- Margaret Hamilton and the Exploration of Space
- Alessandro Volta and the First Battery
- **Robert Hook and the Miraculous Microorganisms**
- How Edward Jenner, Alexander Fleming and Louis Pasteur saved the world

Day Two, Tuesday, 21 Dec 2021

- **Inge Lehman and the Science of Earthquakes**
- Charles Darwin and the Survival of the Fittest
- Rachel Carson and the Silent Spring
- Alfred Wegener and Pangea

Day Three, Wednesday, 22 Dec 2021

- **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