

Secondary Schools Learning programme 2021-22

Under Pressure (KS3)

onsite

Why don't pilots die? Through taking part in experiments and getting to grips with real flight equipment, your students will discover the potentially lethal effects of changing air pressure, examine heat transfers and their effects on flight crews and explore how pilots can train their bodies to fight high G-Forces.

Curriculum links: Science - Atmospheric pressure and pressure in liquids; Describing forces and motion; Heat transfers

Science Show (KS3)

onsite – suitable for large groups

Ever wondered how aircraft fly and just how we can survive up high? Through experiments and demonstrations, find out about air pressure, the forces of flight and how Newton's third law of motion is applied in aviation in this fast-paced Science Show.

Curriculum links: Science

Flight Factory Challenge (KS3)

onsite

Join us for an aircraft construction challenge. Taking inspiration from the aircraft on site, students work in teams to design and build sections of aircraft, using

limited resources. These structures are then tested to destruction – which team will win?

Curriculum links: Design and Technology

Flying Colours (KS3/4)

onsite – suitable for large groups

Explore the vital contributions of Black, Asian and ethnically diverse men and women who have served in the RAF. Through a range of media, discover some of their inspirational stories from the First World War, Second World War and through to today. Students will consider motivations for joining up, concepts of bravery and instances of racism. They will be involved in thinking through and celebrating the many roles and people that make up the Royal Air Force.

Curriculum links: History and Citizenship



Pilots of the Caribbean (KS3/4) online

A dramatic performance streamed to your classroom, which shares the stories of African and Caribbean people who volunteered to serve in the Royal Air Force during the two world wars, and those who serve today. Shining a light on the vital contributions of young Black men and women, audiences discover what made these brave volunteers fight for the country that had enslaved their ancestors. In the live section which follows the filmed performance, we explore whether a lack of diversity in popular British Culture has written people of African and Caribbean descent out of history, and why this might be.

Curriculum links: History and Citizenship

Hands-on History (KS3/4) First World War or the Battle of Britain onsite

Immerse your students in a key moment of British History. Select from the First World War or focus in on the Battle of Britain. Get hands on with objects, uniforms and clothing and analyse historical documents to piece together stories from the past.

Curriculum links: History

Debate Space (Upper KS3/4/5) onsite

Are robots taking over our world? Should drones be allowed in our skies and should we be worried about artificial intelligence? In our purpose-built Digital Interactive Debate Space, we will help your students find out about the advantages and disadvantages of the rising use of artificial intelligence and drones. Machines with increasing levels of automation and autonomy could be used in combat. Examine the arguments for and against and argue your team's point of view. When the debate is over, your students will vote on what they really think about this controversial topic. View a [Debate Space trailer](#) on our website.

Complement your workshop with an exploration of our RAF: First to the Future exhibition which examines how the RAF use new technologies such as drones and cyber warfare.

Curriculum links: Debate Skills, Artificial Intelligence, robotics and drones.

