



IMAGING PARTNERSHIP

Exploring Education Through Imaging

Mechanical Engineering

Sessions Overview

Through a series of entertaining and educational workshops, based on practical hands-on experiences, this course is designed to give an appreciation of how the Aerospace Industry contributes to our lives, through the medium of Photography/Imaging and for pupils to gain an insight into a range of related careers.

Breakdown of Sessions for the Aerospace Workshops:

Session 1: Introduction to Aerospace

Learning opportunities include:

- What is Aerospace?
- Looking at Aerospace in Science, Engineering and Business
- Careers in Aerospace

Session 2: History of Flight

Learning opportunities include:

- Early experiments to Moon landings
- Peace and War
- Our own experimental Rockets

Session 3: Biomimetics

Learning opportunities include:

- What is meant by Biomimetics and Reverse Engineering?
- How we use discoveries from Nature to help develop new products that help improve the quality of our lives
- Exploring flight – the study of how birds to enable human flight is one of the earliest examples of biomimicry
- Using examples of how Nature works to inform our own designs

Session 4: Structures

Learning opportunities include:

- What is a Structure?
- What is Triangulation?
- Working together to produce a structure based on those recorded from Nature
- Recording the process: Documentary Photography

Session 5: Aerospace Manufacturing

Learning opportunities include:

- Working together to produce quality products
- Designing and modelling our own planes in competition

Session 6: Bio-Engineering - Agriculture

Learning opportunities include:

- Testing our planes
- Looking at how they could be improved
- How Aerospace developments benefit other areas of life e.g endoscopes