



Examples from our Engineering Branch

Through a series of entertaining and educational workshops, based on practical hands-on experiences, this course is designed to give an appreciation of how Engineering contributes more and more to everyday applications, through the medium of Photography/Imaging and for pupils to gain an insight into a range of related careers. Each session incorporates facts and stories about the future of Engineering.

- **Aerospace Engineering**

Learning opportunities include:

- Aeronautics - the design and development of aircraft and air traffic control systems
- Astronautics - the design and development of spacecraft with an emphasis on spacecraft systems, the design of ground control systems for spacecraft, and the design of orbital mechanics for spacecraft missions

- **Applied Engineering**

Learning opportunities include:

- Automation/control systems/mechatronics/robotics
- Computer-aided drawing and design (CADD)
- Construction
- Electronics
- General
- Graphics

- **Biomedical Engineering**

Learning opportunities include:

- Bioinformatics
- Biomechanics
- Biomedical Optics
- Clinical Engineering - is the application of technology for health care in hospitals.
- Medical Imaging - is one of the unique techniques that involve the merging of physical phenomenon such as light, sound, magnetism, etc. with high speed electronic data processing, analysis and display to create an image.

- **Applied Engineering**

Learning opportunities include:

- Automation/control systems/mechatronics/robotics
- Computer-aided drawing and design (CADD)
- Construction
- Electronics
- General
- Graphics

- **Nanotechnology**

Learning opportunities include:

- Molecular engineering
- Materials science
- Instrumentation engineering
- Electronics