

ENGINEERING and GRAPHICS

SUBJECT DESCRIPTION	<p>This course will provide you with an Introduction to both Engineering Science and Graphic Communication; with half the year spent on each subject area.</p> <p>Engineering Science is a classroom based course with both practical and theoretical aspects. Learners will investigate the role of engineers in industry, control systems including electrical and electronic circuits and programmable microcontrollers, and mechanical systems including mechanical and pneumatic components.</p> <p>Pupils will learn how to build circuits, as well as writing programs and simulating mechanical systems. Pupils will also be expected to use the knowledge gained to solve challenging problems which will include the use of mathematical formulae so good numeracy skills are essential.</p> <p>Graphic Communication will allow pupils to learn about the creative and diverse world of 3D Computer Modelling, and Graphics within the Publishing and Creative Industries. Pupils will learn how to create 3D CAD models using Autodesk Inventor, and learn how to generate different kinds of Graphics from these models. They will also learn how to analyse, and create their own, graphics for use in the world of publishing and advertising. Good ICT and Numeracy skills are essential.</p> <p>Entry Requirements:</p> <p>You will have gained skills in S1 and S2 to allow you to take this course. However, you must also have good Maths skills as there is a considerable amount of maths involved in Engineering, and you must also have good ICT skills. An ability to work safely is important too, as there are times when you will be working with equipment that can be dangerous if not used correctly.</p>
COURSE CONTENT	<p>You will learn about:</p> <ul style="list-style-type: none"> ● Pneumatics ● Electronics and Programming ● Mechanisms and Structures ● The Branches of Engineering ● 3D CAD Modelling and 3D Printing ● Desktop Publishing ● Manual Graphic Techniques <p><i>And lots of other things too ...</i></p>

	<p>Assessment</p> <p>Work is assessed by end of unit assessments, and problem solving projects/tasks. These will be marked internally by your teacher.</p>
<p>PROGRESSION & PATHWAYS</p>	<p>This course allows you to go onto study at National 4 or 5 level.</p> <p>Engineering Science is designed to give an overview of the main branches of engineering and is perfect for a range of possible careers. See the link below for further information:</p> <p>https://www.planitplus.net/Schools/SubjectCareerList?mysubject=Engineering%20Science</p> <p>Graphic Communication is designed to provide an introduction to the creative world of CAD Modelling, and graphics used in the Publishing and Advertising Industry. Useful for those considering a career in Architecture, Engineering, Graphic Design and many others. See the link below for further details</p>