TOWNLEY GRAMMAR SCHOOL | LEARNING JOURNEY

Engineering

PRIMARY SCHOOL

Learn about the enjoyment of KS2 DT

YEAR 7

- Electronics - Systems approach to designing, Inputs, Processes, Outputs.
- STEM Day – The Magic of STEM.
- Graphics: Isometric, 3D Sketching
- Modelling and Prototyping: New materials, Modern materials, Smart materials, Foam, Papers and boards, Rapid Prototyping.
- CAD & CAM: Laser cutter, 2D Design
- Metals - Metals and alloys Rivets, Files, tools, processes, Joining and assembly
- Polymers – Acrylic, Hips (Vacuum Forming), Rapid Prototyping. & Line Bending
- Timbers - Natural and manufactured timbers, Hand held tools and power tools.

YEAR 8

- Electronics – Programme Micro Chips
- STEM Day - Mission to Mars.
- Electronics - Systems approach to designing, Inputs, Processes, Outputs.
- Graphics: Exploded. Rending, Tone & Hue
- Developing your presentation Skill, During the Lego Project
- Timbers - Natural and manufactured timbers, Hand held tools power tools, Joints and Finishing
- CAD & CAM: Laser cutter, 2D Design
- Mechanical Systems: Movement, Levers, Linkages & Rotary systems
- Composite Materials: Ply Wood
- Metals – Pewter, Casting, Files. Tools, equipment and processes.
- Timbers - manufactured timbers, Hand held tools & creating moulds
- Graphics: 2 Point Per. Rending, Tone & Hue
- Material Properties
- Factors Influencing Design of Solutions
- Screwdriver Practical Project
- Sit your YR10 Mock GCSE paper.
- Joining, assembly and surface finishing
- Applied Maths
- Options Evening Choose DT and Engineering
- STEM day – Inspiring the Future
- CAD & CAM: SolidWorks 3D Printers 2D Design Circuit Wizard
- Types of force
- Metals and Alloys
- Centre Lathe

YEAR 9

- Attend year 12 Taster Day
- Revise for and sit your actual GCSEs
- Moderation Day For your NEA
- Hand in your NEA
- Design and Build Electronic Circuit
- Complete your Practical Work
- Revise for and sit your Y11 mock exams.
- Complete your H&S on the Machines
- Hydraulic and Pneumatic Systems
- Continue your NEA
- Block Diagrams and Pseudocode
- Start your GCSE NEA
- Applied Maths

YEAR 10

- Become a Sixth Form Mentor and a Subject Ambassador
- Start your NEA
- Trip to BlueWater and Ikea
- Support the school's Open Day
- Revise and complete your Y12 mock exams
- Support the Sixth Form Open Evening
- Travel to NYC
- Complete H&S course on the Machines
- Visit a university and become inspired and informed
- Participate in National Careers and Apprenticeship week
- Secure a part time job or work experience

YEAR 11

- Take a gap year, travel the world and embrace new cultures
- Consider summer internship and voluntary work to enhance your learning
- Attend the Y13 Leavers' Ball
- Revise for and sit you're A Level exams
- Hand in your NEA
- Refine and perfect your final product
- Revise for and complete your Y13 mock exams
- Continue to read around the subject and complete your Theory work
- Continue to work on your NEA
- Apply for University through UCAS or alternative post 18 courses
- Write a CV and personal statement

YEAR 12

- Start a degree at University
- Start a degree level apprenticeship

YEAR 13

TOWNLEY GRAMMAR SCHOOL

From here it's possible

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Part of the Odyssey Trust for Education