



Subject: Design and Technology

Lead Teacher: Tracy Wells

Year: 8

Curriculum organisation
Students are taught in groups of 28 students for one lesson per week.

What topics will your daughter be studying this year?			How will your daughter be learning?
<p>Autumn Term</p> <ul style="list-style-type: none"> • Sustainable materials and new emerging technologies. • Future society housing needs and the environment. • Structural elements to achieve functioning solutions. • How systems can be powered and used in their products, for example, heat and light. • Functional and aesthetical appeal to inform the design of innovative solutions. • 2D Architectural plan drawing. • 3D computer generated virtual architectural building and animated walk through. 	<p>Spring Term</p> <ul style="list-style-type: none"> • Bird Feeder considering ease of use, materials and construction methods. • Identify and understand user needs. • Analyse the work of products to develop and broaden their understanding. • Team collaboration. • 2d CAD techniques. • Prototyping and testing. • Impact of material selection. • Polymer Properties. • Recycling Polymers. • CAD/CAM with CNC Industrial Techniques. 	<p>Summer Term</p> <ul style="list-style-type: none"> • Market influences • Point of Sales • Photoshop – Graphical Influences. • Purpose of Packaging. • Batch Production. • End Testing and Evaluation Techniques. 	<ul style="list-style-type: none"> • Whole class discussion. • Individual work. • Group collaborative work with industrial focus. • Problem-solving and investigation tasks. • Communication tasks. • Focus Practical Tasks. • Computer generated assessment of 2d and 3D outcomes.

Equipment needed for lessons	What can you do to support your daughter?
<ul style="list-style-type: none"> • Standard school stationery • Calculator 	<ul style="list-style-type: none"> • Homework tasks including practical investigations and data gathering. • Some 3D CAD packages are free to download for home use to extend skills.

How will learning be assessed and progress measured?	Extension & Enrichment opportunities
<ul style="list-style-type: none"> • Students will peer-mark some exercises. • Individual Focus Practical Tasks assessed using the Design and Technology Assessment Pro-forma. • Key homework tasks will be assessed using the NGHS Marking Policy. • Final outcomes assessment with targets for development. 	<ul style="list-style-type: none"> • In-class extension tasks that are appropriate to activity and thought-provoking for early finishers. • Coaching opportunities during lesson. These often lead to ambassadors for the subject in later years. • Age appropriate engineering summer school and day courses are communicated to students.

If you have any questions about this Learning Overview, please contact the named Teacher above.