# Hartford Church of England High School – Year 8 – Design Technology

| Year 8 | Design | Technology | Food |
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| **Topic(s)** | Metals & Ergonomics (bottle opener) | Design Communication (Architectural model) | Nutrition, Origins of foods and Functions of Key Ingredients |
| **Focus** | Students will have the opportunities to develop a wide range of knowledge relating to metals, ergonomics and suitable shaping tools and machinery to create a practical product. This unit along with many of the others in Design Technology follow the design process (investigate, design, make and evaluate). | Students will focus on developing key communication skills. Developing a knowledge of how to present and communicate their ideas effectively.<br>This unit along with many of the others in Design Technology follow the design process (investigate, design, make and evaluate). | The opportunity to develop knowledge relating to cooking, food processing skills and food hygiene. To develop knowledge of the five nutrients and begin to explore some principals of food science. |
| **Vocabulary** | Metal, Ferrous, Non-Ferrous, Alloy<br>Strength, Hardness, Malleability, Ductility, Elasticity, Absorbency, Density, Fusibility, Electrical Conductivity, Thermal Conductivity Ergonomics, Anthropometrics | Research, Engineering Brief, Technical Drawing Floor Plan, Site Plan, Isometric Drawing, Two Point Perspective Drawing, Prototype, Planning Permission | Calories, Amino acids, Nutrition, Gelatinisation, Starch, Gluten Formation, Complex Carbohydrates, Free Sugars, Energy Balance, Obesity, Macronutrients, Micronutrients, High Biological Proteins |
| **Assessment** | MST1- Physical and properties of materials<br>MST2- Development of the bottle opener jaw and surface finish of the steal.<br>HST written- Covers all knowledge and learning for the unit of work.<br>HST practical- The completed bottle opener. | MST1- Isometric drawing of own building design.<br>MST2- Perspective drawing of own building design.<br>HST– Oracy Presentation – a 2 minute planned presentation delivered to the class.<br>HST practical- Practical based on the quality of outcome made within lessons when prototyping. | MST1- Healthy Eating and functions of Macronutrients and Micronutrients<br>MST2- Focus on functions of ingredients (cupcakes)<br>HST Written- Healthy eating, origins and functions of key ingredients<br>HST Practical- Pizza- focus on gluten formation. |
| **Curriculum Thread** | Technical Knowledge, Manufacture (Metals), Evaluate | Technical Knowledge, Design, Evaluate | Technical Knowledge, Manufacture (food preparation), Modify (Design) Evaluate |
| **Wider Reading** | Why Do Metals Rust? An Easy Read Chemistry Book for Kids \| Children's Chemistry Books | Students' choice: Step Inside Homes Through History by Goldie Hawk and Sarah Gibb. Read the reviews of Step Inside Homes Through History by participating schools.<br>Cool Architecture by Simon Armstrong | Nutritional Value and Functions of Various Foods: A Guide to Healthy Eating<br>Super Clean Super Foods: Power Up Your Plate, Boost Your Health, 90 Nutritious Foods, 250 Easy Ways to Enjoy (Dk) |