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| Year 9 | **Topic: Evolution of the Lego Man**  **Period:** Autumn 1 |
| **Overview of topic:**  Students will be introduced to technical drawing techniques used within the design industry (Isometric projection, Cabinet Oblique & Third Angle Orthographic Projection). Students will apply these techniques to creatively illustrate the evolution of the LEGO man.  Students will also gain the opportunities to explore Tinker Cad and create a personalised Lego brick keyring that can then be 3D printed. Students will manufacture a miniature keepsake box in the style of a Lego brick. This will introduce them to wood joints and build upon prior workshop skills from Yrs7&8. | |
| **Key** **knowledge:**  Students will develop the knowledge and understanding to present their DT design work to a professional standard. They will learn the importance of construction lines, graphic rendering, to create a realistic representation of their work. They will also be introduced to CAD/CAM processes and can develop their workshop practice further building upon prior knowledge.  **Key vocabulary:**   |  |  | | --- | --- | | **Tier 2** | **Tier 3** | | **Apply**  **Create**  **Evaluate**  **Complete** | **Rendering**  **Vertical**  **Horizontal**  **Diagonal** | | **Key skills:**  **Students will know how to eliminate the use of a rubber through correct use of construction lines.**  **To follow and read an Isometric grid. Steps taken to draw a 3D shape.**  **To follow and read a Cabinet Oblique grid. Steps taken to convert 2D shapes into 3D.**  **How to identify thick & thin outlines.**  **Graphic rendering/apply an outer glow & shadow to objects.**  **Tinker Cad (CAD)**  **3D printing (CAM)**  **Wood joining techniques – mitre, comb and butt joints** |
| **Co-curricular opportunities:**  Tuesday Graphic Design club after school | **Key reading skills taught *(clarify, question, summarise, predict)* and key texts:**  **Skimming and Scanning**  **Reading class instructions**  **Wider Reading Opportunities/Links:**  Sketching: Drawing Techniques for Product Designers  Drawing for Product Designers (Portfolio Skills)  Sketching The Basics |
| **How can I use this information at home?**   * Conversation starters with your children to discuss their learning * Support your child in carrying out independent research around the topic * Visit your local library (or BorrowBox), museums, or other locations to explore the topic * Promote books/other texts that explore this topic (see reading section) * Help your child to learn the key vocabulary | |