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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:**

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| **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 DesignersDrawing 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
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