## Holland Park School | Year 8 Design and Technology

| YEAR 8                 |          | Maze ProjectMaterial: ManufacturedBoard/Polymers   |
|------------------------|----------|--|
|                        |          |  |
| Research and Design    | Research | <ul> <li>Explore existing products that promote hand eye coordination</li> <li>Analyse products in detail using the criteria: Aesthetics, Cost, Client, Environment, Size, Safety, Function,<br/>Materials/Manufacture</li> <li>Understanding how research informs design thinking</li> </ul>  |
|                        | Design   | <ul> <li>Use a variety of approaches, for example biomimicry and user-centered design, to generate creative ideas and avoid stereotypical responses</li> <li>Develop and communicate design ideas using annotated sketches</li> <li>Combine ideas from a variety of sources</li> </ul>   |
| Technical<br>Knowledge | Theory   | <ul> <li>Demonstrate the universal health and safety rules of the workshop.</li> <li>Understand the differences in between Thermo Polymers and Thermo-setting polymers</li> <li>Understand the physical properties of Manufactured board.</li> <li>Use learning from science to help design and make products that work</li> <li>Use learning from mathematics to help design and make products that work</li> </ul> |
| Make                   | Skills   | <ul> <li>Communicate plans clearly so that others can implement them</li> <li>Match and select suitable materials considering their fitness for purpose</li> <li>Select appropriately from specialist tools, techniques, processes, equipment and machinery, including computer-aided manufacture</li> </ul>   |
|                        | Make     | <ul> <li>Make use of specialist equipment to mark out materials</li> <li>Adapt methods of manufacture to changing circumstances</li> <li>Follow procedures for safety and hygiene and understand the process of risk assessment</li> </ul>   |

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| Evaluate         | Critical   | <ul> <li>Evaluate their products against their original specification and identify ways of improving them</li> <li>Actively involve others in the testing of their products</li> <li>Produce short reports, making suggestions for improvements</li> </ul> |
|------------------|--|--|
| Cross Curricular | Literacy   | Opportunities for extended writing within Product Analysis, Evaluations, justifying decisions orally and through<br>annotation. Writing a making diary.<br><b>No excuse vocabulary:</b><br>MDF, Polymer, Thermoforming, Thermosetting, Finish, Acrylic     |
|                  | Numeracy   | Measuring and Calculations   |
|                  | Other<br>subjects  | <ul> <li>Science – Polymerisation</li> <li>SMSC - Designing a product to improve a child's development. Researching charities and choosing one to represent.</li> <li>PSHE - Assessment and evaluation. Safety</li> </ul>                                  |
| Careers          | https://www.careerpilot.org.uk/job-sectors/subject/product-design#link-1 |  |