

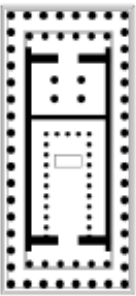



## ALMOND HILL JUNIOR SCHOOL MEDIUM TERM PLAN

**TOPIC TITLE/SUBJECT:** Design Technology – Structures

**YEAR GROUP:** 4

**TERM:** Autumn

| Vocabulary  | Skills  | What we already know  |
|---|---|---|
| Parthenon<br>Labyrinth<br>Function / functionality<br>Strengthen<br>Durability<br>Reinforce<br>Framework<br>Join<br>Criteria<br>evaluate<br>Structure<br>Aesthetics<br>Modification<br>Stability  | <b>DT (DESIGN, MAKE, EVALUATE)</b> <ul style="list-style-type: none"> <li>• Begin to use research to inform ideas in terms of functionality and aesthetics</li> <li>• Choose from a range of materials and designs</li> <li>• Investigate different ways of strengthening materials</li> <li>• Create a diagram of a design and annotate with chosen tools and materials</li> <li>• Be able to discuss reasons for choices</li> <li>• Order the main stages of making and carefully follow a design to make a product that fits a specific brief</li> <li>• Suggest a refinement or modification at each stage of design and making</li> <li>• Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques</li> <li>• Follow procedures for safety</li> <li>• Evaluate a finished product according to design criteria</li> <li>• Outdoor learning opportunity – investigate the key element of successful structures in the school environment and grounds</li> </ul> | <ul style="list-style-type: none"> <li>• Learning about Ancient Greece.</li> <li>• How to attach materials together.</li> <li>• Designing a product that is fit for purpose.</li> <li>• Making a product with the user in mind.</li> <li>• Evaluating a product.</li> <li>• Some children will have experience of a maze.</li> </ul>  |
| <b>Illustration/Sources/Resources</b><br>Word mats.<br>   | <b>Application/ Outcomes</b> <ul style="list-style-type: none"> <li>• A labyrinth with an entrance and exit which fits the purpose of a game</li> <li>• A model of the Parthenon which replicates features of the original, stands and is durable</li> <li>• Experiment with how to effectively strengthen a structure</li> <li>• Understand and order the main stages of making</li> <li>• Draw a design with labels, select materials and tools</li> <li>• Adapt and improve designs and models</li> <li>• Evaluate own and other's work for functionality, fit against design brief / purpose and aesthetics</li> <li>• Challenge: Real world problem – using finite resources</li> </ul>  | <b>Concepts</b> <ul style="list-style-type: none"> <li>• Architecture – understand how to strengthen a 3D structure effectively.</li> <li>• To know that research is a key element of planning / design</li> <li>• To understand that review / modification of designs is a necessary part of the process</li> <li>• Creating a product that is fit for purpose – a labyrinth with an entrance and exit.</li> <li>• To have an awareness of Ancient Greek structures and games</li> </ul> |
| <b>Other/Cross Curricular Links with English/Maths/Adaptation for SEND</b><br>Maths – measures, angles<br>History – link to Ancient Greece (Architecture and leisure)<br>RE – worship<br>PSHE – working together, resilience<br><br>SEND – Simplified design and evaluation resources e.g. tick box evaluation sheets. Word mats. More adult support. Mixed ability groupings<br>Outdoor learning – investigate school structures / joins |   |   |