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| Year Group: 6Name of project: The Eighth Wonder of the WorldTerm: Autumn 2 | **Summary of current hook:**The children are visited by Mark Maffey, an architect linked to the school. He introduces the creative and design process and discusses with the children how buildings and structures are created for purpose and using materials suited to the location. | **Summary of current celebration:**Children will work with their parents on a ‘build day’ mid-project. The children present their buildings or structures to an architect and a creative designer from ‘Canopy’. They have to present the process they have gone through and explain the design elements linking this to the location and sustainability.  |
| **Learning Journey****Design and Technology:*** Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology
* Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
* Evaluate their ideas and products against design criteria
* Build structures, exploring how they can be made stronger, stiffer and more stable
* Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
* Understand how key events and individuals in design and technology have helped shape the world (through our Engliosh writing into Gustave Eiffell)

**Geography:**Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied |
| **What are the current curriculum links to maths and English?*** Children research the life and works of Gustave Eiffel in English, writing a biography with a viewpoint based on. (Autumn 2, Unit 1)
* They also write explanation texts on how to build a model building or structure, explaining the design process. (Autumn 2, Unit 2)
* The narrative work based on the book ‘Window’ requires the children to identify how environments change over time due to human impact and the implications of this. They write circular narratives based on this. (Autumn 2, Unit 3)
* Children applying their measuring skills when cutting lengths of wood and materials. They are required to produce a scale drawing of their final design, applying their skills of ratio and proportion and having the opportunity to recognise how maths is applied outside the classroom.
 | **Key dates**Architect visit‘Big Build’ dayPresentations to architect |
| **Integrity*** When settling on a final design idea, respect and value of every group member’s ideas will be shown
* Children are expected to work effectively within a group, drawing upon the strengths of each team member
* Group work is fully inclusive and groups made up of children with varying levels of confidence
* Children are expected to offer support to develop specific skills within the design and construction process
 | **Determination and Effort*** Each team member is required to make a positive contribution to the design and construction process
* Specific skills taught with specialist DT tools and trust and responsibility given to children to use these safely
* Collaboration in the presentations given with every group member
* Overcoming challenges faced throughout the design process and problem solving to find alternative solutions whilst not losing the initial concept and idea agreed upon
 | **Respect*** Children are given ownership of the location from around the world; their design should suit this
* Understanding of the difference in resources available in different countries
* Building or structure designs are to include aspects that show sustainability for the environment and the preservation of the Earth
* Respect and inclusion of each group member and their ideas
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| **Growth Mindset*** Children are required to overcome difficulties and work together to problem solve and find creative solutions in the design process
* Children are to work within a given time schedule and have to prioritise and work efficiently and effectively together
* The element of competition provides an opportunity to share other children’s successes and recognise this as a positive aspect of learning and life
* Specific and tailored verbal feedback from experts provides thoughts for future and recognises and celebrates effort and the thought behind the design
 | **Critical Thinking*** Four children per group to provide the best opportunity for positive contributions being made by each group member as per the LTE programme principles
* Children are required to problem solve as the project progresses to overcome issues that arise
* Children are required to think critically and creatively as to how their building or structure is designed and built to make a contribution towards a more sustainable future for the planet.
* Consideration of how to communicate ideas to an audience effectively

*How is your structure designed to support the future of the planet?**How will your building or structure be suited to the location and economic development of the country in which it will be situated?**If you building were to be made, how would it be used to support local communities and sustainability?* | **A school within a garden*** Children should research ways into creating a more sustainable future in terms of the building materials used and how the building can run in a more environmentally friendly way
* The school building is a talked through example of a structure built to suit and improve its surroundings
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| **Evaluation of learning**To what extent were children able to creatively communicate their ideas in the design process?How well did children identify specific areas for development in the design and construction process and to what extent did they refer to the design criteria within this evaluation?How well did the children overcome challenges in the construction process to ensure their structure was stable? |
| **Support for securing key concepts and skills** | **Challenge and extension to deepen understanding** |
| **Specific Pupils** | **Specific Pupils** |