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| **Y3 Build a prehistoric roundhouse** | |
| **Links made with other subjects** | English, history, maths, geography |
| **The BIG Question** | Can you build a stable roundhouse like the ones found during the Stone Age |
| **The BIG Outcome** | To build a prehistoric roundhouse |
| **DT objectives**  (link to NC) | Design   * Design purposeful, functional, appealing products for themselves and other users based on design criteria * Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology   Make   * Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] * Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics   Evaluate   * Explore and evaluate a range of existing products * Evaluate their ideas and products against design criteria   Technical knowledge   * Build structures, exploring how they can be made stronger, stiffer and more stable * Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. |
| **Prior knowledge**  What prior knowledge is needed for children to be successful in this unit? | * Used basic tools safely and appropriately * Discussed ideas * Worked with paper and card – cutting, shaping and joining. * Joined framework structure – Castles – Year 1 – Build a car garage – year 2 |
| **Future learning**  Consider the conceptual knowledge within a subject that pupils need for future learning not just the recall of facts but the importance of concepts | This unit builds on: Reception – Design and make a boat Year 1 – Design and make a castle Year 2 – Design and make a house Year 3 - Design and make a Stone age roundhouse Year 4 – Design and make a package Year 5 – Design and make a Greek inspired structure Year 6 – Design and make a fairground ride |
| **DT strands** | Design   * Design purposeful, functional, appealing products for themselves and other users based on design criteria * Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology   Make   * Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] * Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics   Evaluate   * Explore and evaluate a range of existing products * Evaluate their ideas and products against design criteria   Technical knowledge   * Build structures, exploring how they can be made stronger, stiffer and more stable * Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. |
| **Vocabulary/ Glossary** | Stable, structure, design criteria, clay, strong, sturdy, pole, support, straw, grass, thatched, circular building, wooden posts, weave, wattle, cone. |
| **Knowledge**  (see italics for knowledge to remember) | The knowledge that children will learn and remember:  *1. Investigate and analyse a range of existing products.*   * What is a roundhouse What was it used for? * How does a roundhouse stand? * What materials are used for the roundhouse? * Discuss the history of roundhouses – Use PowerPoint to help support teaching. How important do you think the roundhouses were to people during the Stone Age? * How tdo roundhouses compare to the house you live in today?   2. *Generate, develop, model and communicate their ideas through discussion and annotated sketches*.   * To design and plan a stable structure. Do you know what a stable structure is? * Look at some pictures of objects and ask the children if they think they are stable. What would make them more stable? Why? * Look at some everyday objects and discuss which are the most and least stable and why, then apply this knowledge to roundhouses. * Show the children pictures of a roundhouse. What shape is it? Why is it circular? Thinking about houses today, what shape is your house? Our school? Why do you think they were shaped this way? * Children to investigate how to successfully include both shape and size in a design – see examples in resources below of what the end product should look like. * List the advantages and disadvantages of living in a roundhouse. * To make a roundhouse, which materials could you use for the walls? Roof? and the * Children to explore a range of different materials and assess how suitable they would be for making a roundhouse. * Children to draw what their roundhouse will look like an annotate their drawing with information including materials and why they have been chosen.   3. *Use a range of tools and equipment to perform practical tasks accurately.*  4. Select and use tools suitable for the task, explaining their choices, to cut, shape and join paper and card.   * + Gather all of the equipment and materials that they will need.   + Encourage children to refer to their plan regularly, and think carefully about each step in the process.   + Explain to the children that if they need to change part of their design during the making process, they can.   + Discuss any safety tips or issues with the children when using the various tools and materials today.   5. Use simple finishing techniques suitable for the product they are creating.  *6. Know and explain how to create a stable structure* (children to think and talk through how their structure stands and what holds it together.)  7. *Evaluate their product by discussing how well it works in relation to the purpose and the user and whether it meets the design criteria.*   * Evaluate your design. What does this mean? Why is it important that we do this? Think, pair, then share your ideas. * How successful was your roundhouse? Was it stable? Will it/does it do the job intended? * What would you change? What would you keep the same? |
| **SEND expectations** | * To know what a roundhouse is, how it is constructed and what they are made from. * To know different types of materials that roundhouses are constructed from. * To know how a roundhouse is built, thinking about materials and stability. * To know which tools and equipment to use and why.   To know and explain how to create a stable structure. |
| **Resources** | Research: iPads/pictures  Materials: Corrugated card, polystyrene tile, clay, extra card, dowelling/lollypop sticks, straws, tape, glue, hay/straw, shredded paper.  Make your own Roundhouse • The Sill  <https://www.english-heritage.org.uk/learn/story-of-england/prehistory/daily-life/>  <https://fmlearnwithobjects.co.uk/questions/stone-age-to-iron-age-activity-5-build-a-prehistoric-roundhouse/> |