







Springdale First School





Imagine, Believe, Achieve

Year 1 Design and Technology - Structures

|  Children's prior learning in this area |  Cultural Capital Opportunities |  Key vocabulary and glossary |
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| <p>Mechanisms - sliders</p> <p>Select and use tools to cut and shape paper.</p> <p>Sliders – create a simple slider that moves from left to right</p> <p>Junk modelling.</p> <p>Joining materials/techniques – sellotape/masking tape/hole punches/staples/squeezeie scissors.</p> | <p>Designers – impact of structures – chairs in today's world.</p> <p>Investigate what an architect is – Famous architect design chairs.</p> | <p>Anchor – structure, cut, fold, join, fix metal, wood, plastic, circle, square, rectangle, cuboid, cube, cylinder</p> <p>Goldilocks – design, make, evaluate, weak, strong, thinner, thicker, straight, purpose, ideas, function.</p> <p>Step on – framework, underneath, edge, criteria.</p> |

| Enquiry Question – What did chairs look like in the 1600's? | Enquiry Question – How could we make a chair? | Enquiry Question – How could we make a chair stronger? |
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| <p>Concept – Product - chairs in 1600's.</p> | <p>Concept – Make/evaluate – investigate chair structure and joining techniques.</p> | <p>Concept – design.</p> |
| <p> Children will know how chairs have changed from the time of Stuarts in England and what components make a chair (product).</p> <p>What is the purpose of a chair? Create mind map.</p> <p><u>Use product knowledge to research and understand that products are designed for users.</u></p> <p><u>Compare products.</u></p> <p><u>Talk about and record ideas as a class.</u></p> <p><u>Use relevant technical vocabulary.</u></p> | <p> Children will create a whole class design criteria for making a chair fit for purpose.</p> <p><u>Investigate design ideas.</u></p> <p><u>Experiment with product design.</u></p> <p><u>Build a simple structure and explore how to make it stronger</u></p> <p><u>Use a range of different tools</u> and experiment with cutting, sticking and joining - masking tape/sellotape/split pins/glue to make it fit for purpose.</p> | <p> Using class design criteria – children to know how to design a chair using chosen materials and techniques.</p> <p><u>Investigate design ideas through experimenting with product design.</u></p> <p><u>Explore ideas using drawings and mock ups.</u></p> <p><u>Explore how to join components together effectively.</u></p> <p><u>Use relevant technical vocabulary.</u></p> <p>R&R – materials and joining techniques.</p> |

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| <p>Who invented the chair? The first chair to be widely reproduced came from Renaissance Italy, when a cabinet maker named Guiseppe Gaetano Descalzi, was commissioned to redesign an opulent Empire-Style chair he acquired from Paris.</p> <p>Look at different chairs through the ages – what is similar/same/different?</p> | <p><u>Evaluate ideas against a given design criteria.</u></p> <p><u>Use relevant technical vocabulary.</u></p> <p>R&R – materials – properties that make a material appropriate for making a chair.</p> <p>Investigate materials that could be used to make a chair – explore why successful.</p> <p>R&R – joining techniques.</p> <p>Investigate different cutting/joining techniques for materials – wood/plastic/cardboard.</p> | <p>Chn to choose the design on their chair, material & joining techniques using informed choices from investigations.</p> |
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| Enquiry Question – How successful was my product? | |
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| Concept -Make | Concept – Evaluate |
|  <p>Children will make a product for a specific user following design criteria.</p> <p><u>Build a simple structure and explore how to make it stronger.</u></p> <p><u>Explore how to join components together effectively.</u></p> <p><u>Know a range of tools that can be used to for different purposes, cutting, sticking, joining.</u></p> |  <p>Children will evaluate their ideas against design criteria.</p> <p><u>Evaluate ideas and finished products against design criteria, including intended user and purpose.</u></p> <p><u>Discuss use of tools and the techniques – think about what could be improved and what went well.</u></p> <p><u>Use relevant technical vocabulary.</u></p> <p><u>What went well? Even better if...</u></p> <p>Talk about whether it is fit for purpose and for the intended user.</p> <p>Use evaluation against design criteria – chn to answer questions verbally or recorded.</p> |