

Brough Primary School – Curriculum Intention Plan 2021 - 2022



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| Subject: Design and Technology Year Group: Year 6 | | Area of learning: Complex Structures Focus - how to strengthen, stiffen and reinforce more complex structures. |
| Links to previous work/Remember when | <ul style="list-style-type: none"> • Links to work in Geography locational study - Hull | |
| Term | Year 6 | Key Skills to be taught |
| Summer 2022 What the children should know at the end of this series of lessons | | <p>Make a small wind turbine capable of lifting a cup from the floor - The wind power challenge. Links with Geography location study - Hull.</p> <p><u>Design</u></p> <ul style="list-style-type: none"> • Explain what I want to do and describe how I may do it. • Explain purpose of product, how it will work and how it will be suitable for the user. • Choose best tools and materials, and explain choices. <p><u>Make</u></p> <ul style="list-style-type: none"> • Make suggestions as to what they need to do next. • Join materials/components together in different ways • Measure, mark out, cut and shape materials and components, with support. • Describe which tools they are using and why. • Use finishing techniques to make the product look good. • Work safely. <p><u>Evaluate</u></p> <ul style="list-style-type: none"> • Describe what went well, thinking about design criteria. • Talk about existing products considering: use, materials, how they work, audience, where they might be used; express personal opinion. • Talk about what I would do differently if I were to do it again and why |

Vocabulary

- ❖ lever, pivot, slider, left, right, push, pull, up, down, forwards, backwards, in, out, guide/bridge, straight, curve, slot, investigate, design, purpose, product, function, make, measure, cut, fold, join, fix, weak, strong, tools, template, discuss, compare, evaluate, improve, change, adapt.

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| Sequence of learning | Objectives and suggested details provided by subject leader. |
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| 1 | To investigate mechanisms in moving picture books, thinking about how well they work and the intended user of these. <ul style="list-style-type: none"> Children spend time exploring and evaluating a selection of moving picture and pop up books. Teacher to ask questions - Which part will move? How does the user make it move? How does the mechanism work? |
| 2 | To practise making simple levers and sliders and begin to understand how they can be used to make something move. <ul style="list-style-type: none"> Teacher to model and demonstrate how a simple slider or lever is made including the correct use of tools and materials. Use a premade teaching aid for the children to replicate. |
| 3 | To plan our moving picture book as a whole class and then draw individual designs for different parts of the story. <ul style="list-style-type: none"> Children need to be clear how their mechanism will work and which parts they want to move. Discuss simple design criteria e.g. it should work smoothly, it should make the right type of movement. Discuss the order in which the mechanism will be made. |
| 4 | To create and assemble our pictures for the class book as well as the mechanisms that will make them move. <ul style="list-style-type: none"> This could be done in pairs or individually. Children create their moving pictures depicting a specific part of the current text from their English lessons. |
| 5 | To assess and evaluate our finished product. <ul style="list-style-type: none"> Children look at the different mechanisms created in detail and evaluate how effective they are against the design criteria. Can children suggest what they might do differently if they were to do it again? |

Learning Outcome/product

To design, make and evaluate a whole class moving picture book suitable for a child.

This product should use levers and sliders, words and pictures to retell a story that the children have been looking at as part of their English lessons.

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| Assessment records | List only those children who have not achieved the expected outcomes. |
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| Assessment records | List only those children who have exceeded the expected outcomes. |
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| End of unit assessment question |
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