

Hemswell Cliff Primary School's teaching sequence for Design and Technology

Teaching sequence

1. Go through design brief/criteria,
2. Explore and research work/model,
3. Experiment and practice with techniques/skills required,
4. Plan/design model,
5. Final piece (2 lessons, if needed)– make finished product,
6. Evaluation.

Expectation that Design and Technology is taught in a block unit and can alternate with Art units, with a minimum of 6 lessons within the term, showing progression from lesson 1 to a final piece at lesson 6.

1. One session looking at designs and models that are already made- single/double page (depending on unit) spread of work/model, including info about the work/model, including some pictures of the work/model, what do they like/not like about the work, what techniques do they think have been used,
2. One session for development of techniques – learn and practice skills associated with the unit e.g. sewing stitches, joining materials together.
3. One session designing the final piece- decide what materials will be needed and techniques to be used, rough layout and colours that will be used, annotations to be included about what they are using and why,
4. **Two** sessions completing the final piece – photos of children working, to show the progression of final piece. Photo evidence in books if the work is being used on display,
5. One session evaluating the final piece (self and peer comments) – 3 questions for children to answer – what worked well? What could be improved? What would you do differently next time?

Design brief/Criteria

To show the difference between Art and D.T., the children need to be given a set of criteria or a design brief for their D.T. work to align with. This will show that there is a specific purpose for their model.

Example of criteria for Stone Age pouch –

Set criteria	Pupil	Teacher
1. Must hold at least 10 marbles/pebbles.		
2. Must be able to close.		
3. Must fit around your waist and tie up securely.		

The children have 3 (KS1) and 4-5 (KS2) specific purposes for their model/work that they need to meet. Once they have completed final product, they can go back and tick off on their

criteria if their product has met each one. This will also support the teacher's assessment of their work, as they are also able to tick against each criterion and assess the child's work.

Sketchbooks

Sketchbooks are a vital part of Design and Technology, they shouldn't be marked, but some feedback on a final piece, or TT to show where support has been given.

To show a D.T. block unit, sticking in the design brief or criteria table at the beginning will show the difference between Art and D.T.

In KS2, the children should be annotating their work, ideas and show the use and understanding of key vocabulary.

Assessment in Design and Technology

Assessments can include the children's evaluations of their work, linking back to the skills they were using or being taught. An end of unit ticket can be used, to get a quick summary from the children about what they have been learning and how they think they have done.

Teacher assessment against the criteria given will also support meeting the skills on the progression grids.

Other assessment/evidence collection is on the Design and Technology progression grid.

Expectations within Key Stage 1

Design brief/criteria- This can be shared and discussed with the children in any way but a printed copy needs to be glued in each book (it may be necessary to differentiate design briefs).

Examples of work/model – Various examples of models to be shared with the children, a printed example must be in their books.

Technique practice- Can be examples in sketchbooks, stuck into sketchbooks or photographs.

Design ideas and preparation – Drawn, labelled and coloured with appropriate techniques.

Final piece – The final piece should be created by the children, with examples of templates stuck in books after using them. The final piece should be photos of the children completing work and the finished product, stuck in sketchbooks.

Evaluation – Children to answer the following questions.

- What went well?
- How could you improve your work?

Year 2 children need to write their answers, Receptions and Year 1 children can draw a happy face or sad face against a set of statements evaluating their work.

Examples of work/models It has a clear user. It has a clear purpose good design choices made: materials, shape, textures It is innovative and unique It is functional (works well)	Technique practice	Design
Final piece	Evaluation Aim of the project: to make a nice smoothie What worked well? adding milk What would I change next time? I would change yoghurt to Ice cream Why fruit smoothie? Did you face any challenges? yes because it was to make	

Examples of work/models

ANALYSING EXISTING PRODUCTS

Product: Rubik's Cube

Function: To solve the cube by rotating the faces to get the colors to match.

Materials: Plastic, rubber bands, stickers.

Design: A cube with 6 faces, each with 9 stickers. The stickers are in 3 colors (red, blue, yellow).

Structure: The cube is made of plastic and has a central axis with a rubber band around it. The stickers are on the outside of the cube.

Use: To solve the cube by rotating the faces to get the colors to match.

Technique practice

How to do the running stitch

Starting off: To start with a running stitch, you need to make a loop of the thread to go into the needle and then pull it through the loop.

Step 1: Insert the needle. The needle should be inserted into the fabric at the point where you want to start the stitch.

Step 2: Pull the thread through. The thread should be pulled through the fabric at the point where you want to start the stitch.

Step 3: Repeat the process. The process should be repeated until the running stitch is complete.

My sample of the running stitch:

Design

My ideas

Idea 1: A product that will be designed and made in a way that it will be useful to the user. The product will be made from a material that is easy to use and will be designed to be used in a way that it will be useful to the user.

Idea 2: A product that will be designed and made in a way that it will be useful to the user. The product will be made from a material that is easy to use and will be designed to be used in a way that it will be useful to the user.

Idea 3: A product that will be designed and made in a way that it will be useful to the user. The product will be made from a material that is easy to use and will be designed to be used in a way that it will be useful to the user.

Final piece

The final piece consists of two models. The first model is a rocket ship made from a cardboard box, with a red flag on top and a blue and white striped body. The second model is a lunar lander made from a cardboard box, with a blue and white striped body and a red flag on top.

Evaluation

Design Technology
Two Stars and a Wish

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Design Technology
Two Stars and a Wish

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Design Technology
Two Stars and a Wish

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Design Technology
Two Stars and a Wish

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Expectations within Upper Key Stage 2

Design brief/criteria- This can be shared and discussed with the children in any way but a printed copy needs to be glued in each book (it may be necessary to differentiate design briefs).

Examples of work/model - Various examples to be shared with the children, a printed example must be in their books. Children to make annotations of their thoughts about the artists' work.

Technique practice- Can be examples in sketchbooks, stuck into sketchbooks or photographs.

Design ideas and preparation- Drawn, labelled and coloured with appropriate techniques suggested and materials to be used, colour swatches to be included. For 3D sculptures, measurements to be included and drawn from at least 2 angles (birds eye view, side angles, front and back).

Final piece- The final piece should be created by the children, with examples of templates stuck in books after using them. The final piece should be photos of the children completing work and the finished product, stuck in sketchbooks.

Evaluation- Children need to respond to the following questions about their final piece – How did you feel using chosen technique? What went well? What would you improve next time? Did you enjoy creating your final piece?

Examples of work/models

Technique practice

Design

Final piece

Evaluation

GOOD POINTS

I like the overall design of my project. It is a suitable game for a young child as it helps in the development of hand/eye coordination. The game and its container are safe as the edges are not sharp and there are no small pieces that could be swallowed.

The points are accurate and hold the sides together permanently. The wood is pine and this is quite cheap to buy and yet strong and able to withstand everyday knocks.

I like the colour scheme as it reflects the results of my questionnaire. The person I'd in red as this was found to be the favourite of children aged 5 to 9 years of age.

The lid closes quite smoothly and the butterfly hinges work well. The translucent lid allows the internal maze to be seen and the pattern looks quite interesting.

I like the position of the coat of arms. This has been machined on a CNC machine.

Overall the game works well. The maze is complex but with effort it can be beaten.

EVALUATION

PRODUCT PHOTOGRAPHS

IMPROVEMENTS

Although I like my maze game it could be improved and be even better.

A selection of woods could be available so that parents could choose the type they like best. A wood such as mahogany would increase the price but I think parents would be prepared to pay a higher price for a quality product.

A selection of handle shapes would allow the user to choose the shape they like best. The game could be supplied with a variety of shapes making the game more interesting to look at and play.

Customers could select lids from a range of colours including translucent and transparent perspex.

The coat of arms could be chosen by the customer to reflect the family name. This would personalise the product and lift the price of sale.

In future the maze game could be based on a rectangular, circular or even triangular shape.