



Design and Technology (D&T) Learning & Teaching Policy: The Bradshaw Hall Approach
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The Vision

At Bradshaw hall we aim to provide all children the platform to explore a wide range of technologies. Through building on prior knowledge and researching tools, techniques, designers and inventors we aim for all children to become powerful designers and makers in their own right. We aim for all children to create real and purposeful products they can be proud of.

Aims:

The national curriculum for design and technology aims to ensure that all pupils:

- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- critique, evaluate and test their ideas and products and the work of others
- understand and apply the principles of nutrition and learn how to cook.

Purpose of study:

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

Golden Aims and Principles:

Teaching should: build on children's prior learning and skills (progressive), be process driven, support 'iterative process' and be for a real life purpose (functional).

Our D&T curriculum is congruent with our schools values: *Successful Learners, Confident Individuals, Responsible Citizens* and our Golden Principles: *Responsibility, Respect, Learning Well, Resilience, Being a Team Player.*

1. Progressive

Long term and medium term planning will be guided by the projects on a page programme of study.

2. Process driven

D&T portfolios should show clear development of the process, thinking, critique and evaluations not simply the end product.



3. 'Iterative process'

The other key idea in D & T is the "iterative process". This should be the case in KS1 and KS2. This means the whole class do not produce an identical item or product but all children should be encouraged to think carefully who their user will be, how they can design their product to suit them and how they can make adaptations throughout the whole process to improve their unique product! There are suggestions on the back of the projects on a page sheet in the far right column.

4. Functional

The Projects on a page sheets clearly states children should Design, make and evaluate a _____ (product) for _____ (user) for _____ (purpose). This means it can actually be used by somebody for a real purpose!

Projects on a Page (POAP).

At Bradshaw Hall we use the DT Association 'Projects on a Page' as the basis for our long term overviews, adapting them for our own unique planning and learning experience through a scheme of work.

The Design and Technology Key Essentials in each project are:

- **User** – children should have a clear idea of who they are designing and making products for, considering their needs, wants, interests or preferences. The user could be themselves, an imaginary character, another person, client, consumer or a specific target audience.
- **Purpose** – children should know what the products they design and make are for. Each product should perform a clearly defined task that can be evaluated in use.
- **Functionality** – children should design and make products that function in some way to be successful. Products often combine aesthetic qualities with functional characteristics. In D&T, it is insufficient for children to design and make products which are purely aesthetic.
- **Design Decisions** – when designing and making, children need opportunities to make informed decisions such as selecting materials, components and techniques and deciding what form the products will take, how they will work, what task they will perform and who they are for.
- **Innovation** – when designing and making, children need some scope to be original with their thinking. Projects that encourage innovation lead to a range of design ideas and products being developed, characterised by engaging, open-ended starting points for children's learning.
- **Authenticity** – children should design and make products that are believable, real and meaningful to themselves i.e. not replicas or reproductions or models which do not provide opportunities for children to make design decisions with clear users and purposes in mind.

The 'Projects on a Page' reflects the purpose of study in the national curriculum. The 3 main types of activities are:

1. Investigative and Evaluative Activities (IEAs) where children learn from a range of existing products and find out about D&T in the wider world
2. Focused Tasks (FTs) where they are taught specific technical knowledge, designing skills and making skills
3. Design, Make and Evaluate Assignment (DMEA) where children create functional products with users and purposes in mind.

The procedure for planning from the 'Projects on a Page' is the same across all year groups, ensuring consistency of approach throughout:

Stage 1- 9. The Planning Process:

1. Year groups – projects are allocated to year groups and evidenced on the long term planner
2. Aspect of D&T and Focus –identifies coverage
3. **Key learning in D&T – this starts by stating what children should have previously learnt and coverage in the programmes of study. This will need to be referred to in your scheme.** You may need to adapt this if prior learning has been missed or if more challenge is required to move children's learning on.
4. What could children design and make? Examples of what could be made and evaluated
5. Intended users – intended user or users for the children's products.
6. Purpose of products –what will it be used for
7. Links to topics and themes – when selecting what children might design and make, think about what would fit well with your termly or half termly topic or theme.
8. Possible contexts – select the broader context or contexts that children will work in when carrying out the project.
9. **Project title – on the basis of all the above, you decide upon and complete the title for the project, including in general terms what children will design and make, who it will be for and what purpose it will fulfil.**

Stage 10 to 15 The Learning Process/Model:

- (IEA) Immersions/evaluations of existing products (week 1)
- (FT) Focus steps/task and rehearsal (week 2,3)
- (DMA) Planning stage (week 4)
- (DMA)Product production (week 5)
- (DMA) Evaluation (week 6)

10. 12. 14. IEAs, FTs and DMEA – having established the key learning, context, purpose and user, you need to consider the main D&T activities suggested and annotate these to suit what children will be designing and making. Evidenced in scheme.

11. 13. 15. Potential related activities to other subjects.

Stage 16-20 are other considerations for planning and delivery

16. Possible resources – these are possible resources for the project, not a definitive list.
17. Key vocabulary – this is a list of the key technical vocabulary, not a complete list. (reference in scheme)
18. Key competencies – select from those which children are likely to develop through the project.
19. Health and safety – a general reminder about risk assessment and health and safety.
20. Overall potential of project – here you rate the project prior to carrying it out to ensure that each of the D&T essentials has been adequately addressed.

To the reverse of each unit is suggested CPD- it includes sketches, diagrams, tips, techniques, suggestions, technical terminology

Application of the D&T Curriculum:

What will learning look like across the Key Stages?

The model/process and monitoring of Design Technology:

- Projects on a Page should be used to write a personalised DT scheme of work for each unit...the exemplar is shown below
- For each unit, the product, user and purpose for the unit is clearly visible and central to D&T teaching and learning (stage 9 of POAP): Design, make and evaluate a _____ (product) for _____ (user) for _____ (purpose).
E.g. Design, make and evaluate a **greetings card** (product) for **family and friends** (user) for **Christmas** (purpose)

Evidence of each stage should capture the model process:

- The Task
- IEA Immersions/evaluations of existing products (week 1)
- (FT) Focus steps/task and rehearsal (week 2,3)
- (DMA) Planning stage (week 4)
- (DMA)Product production (week 5)
- (DMA) Evaluation (week 6)

- Remember the end product is an iterative process not a conveyor belt of rigid design and make.
- The process of each stage above should be modelled and displayed in the classroom, incorporating vocabulary. Children's ideas/work should be added to each and referred to.
- To ensure children's knowledge and skills are secure in their long term memory, teachers are to provide regular 'check-in's by recapping previous learning before introducing new concepts using the display.
This may also be in the form of: quizzes, true or false, short starter activities etc to build and secure key learning or by looking back at their previous learning in portfolios.
- There is an assessment portfolio to support teacher's judgements of children's designing, making and evaluative ability. (CB AND JG to provide and add to the DT Policy)
- Examples of children's work from each year group will be displayed on the Bradshaw Hall School Communal D&T display which will showcases each year groups skills the term after completion.



Non-negotiables KS1 And KS2

1. All year groups have a D&T booklet for each unit of study. The booklet has a front cover to ensure the following ...

Design, make and evaluate a _____ (product) for _____ (user) for _____ (purpose)

2. Page 2 is a D&T knowledge organiser which includes

-Knowledge and skills

-Key vocabulary

(These statements are to be taken directly from projects on a page and ensure they are pure D&T).

3. All pages to contain a progress bar (evaluate and learn, design, make, evaluate



4. Marking and feedback- pink and green pen to be used on the evaluation page to evaluate pupils understanding. Additionally, any good use of D&T vocabulary throughout the booklet to be highlighted in pink.

Teachers to provide feedback at the end of the unit via a feedback text box.