



## Design and Technology at Hursthead Infant School

### **Intention statement:**

At Hursthead Infants we believe that Design and Technology prepares children to participate to participate in tomorrow's rapidly changing technologies. It enables children to think creatively and become more creative problem solvers, as individuals and members of a team. They must look for users' needs and respond to them by developing ideas and making products. Design and Technology is an integral part of the National Curriculum and is a key skill for everyday life. At Hursthead Infant School we recognise that pupils are entitled to undertake engaging projects which develop their creativity, design and making skills. This is delivered within a structured and progressive approach to learning. The purpose of this policy is to state how the school intends to make this provision.

### **National Curriculum**

The national curriculum for Design and Technology states:

- ♣ 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.
- ♣ pupils 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.



The national curriculum for Design and Technology ensures pupils are taught to:

- ♣ 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.

## **EYFS Statutory Framework**

**Design and Technology in EYFS is covered in the area of learning- Expressive Arts and Design**

The development of children's artistic and cultural awareness supports their imagination and creativity. It is important that children have regular opportunities to engage with the arts, enabling them to explore and play with a wide range of media and materials. The quality and variety of what children see, hear and participate in is crucial for developing their understanding, self-expression, vocabulary and ability to communicate through the arts. The frequency, repetition and depth of their experiences are fundamental to their progress in interpreting and appreciating what they hear, respond to and observe.

## Our Curriculum

Through the Design and Technology curriculum at Hursthead Infants our aims enable children to:

- ♣ develop enjoyment and interest in the subject and build a foundation to understand its contribution to aspects of everyday life
- ♣ gain the confidence and skills to participate in an ever-changing, technological world.
- ♣ undertake practical activities to investigate and make good quality products, fit for their intended purpose
- ♣ develop their design and technology capability using knowledge and skills from a wide range of other curriculum areas.
- ♣ generate, develop and talk about ideas of their own and work of others
- ♣ develop their creativity and design skills and begin to understand design criteria and how it relates to user and authentic purpose for products so that they can go on to build prototypes and finished products
- ♣ select tools, techniques and materials for their product, adhering to safety procedures
- ♣ evaluate their and others' work, testing their ideas and products
- ♣ understand the basic principles of food, nutrition and healthy eating
- ♣ develop a love of cooking
- ♣ understand where food comes from
- ♣ experience designing, testing and preparing a variety of healthy dishes
- ♣ follow safe procedures for food safety and hygiene

In EYFS, Design and Technology is taught indirectly through the Expressive Arts and Design, Physical Development and Understanding the World areas of the curriculum, in line with the Statutory Framework for the EYFS (2025). . It is introduced through engaging, practical activities that encourage every child to explore, predict, think, make decisions and discuss what they have found out.

In Key Stage 1 planning is based on the Design and Technology Programmes of Study: Key Stage 1 of the National Curriculum in England (2014) The scheme of work also incorporates guidance from the Design and Technology Association including the 'Projects on A Page' planners, as well as the 'Progression of Key Skills' advice and inclusion of the 'Six Principles of Design and Technology'. These form the basis of the Design and Technology scheme of work in school. The scheme helps to ensure progression and continuity of coverage throughout the school.

As children move into Key Stage 1, Design and Technology is planned using the Design and Technology progression of skills and knowledge which enables teachers to ensure they are always planning for the next steps in learning around any Design and Technology concept. Knowledge and skills are further enhanced by the use of subject specific vocabulary and experiences rich in practical and real-life opportunities. Design and Technology is linked with our topic work and the wider curriculum enabling children to use their knowledge and skills to develop a deeper understanding of the reasons behind why a product has been created, how it has been created, and how we can create our own, in response.

## What does Design and Technology teaching look like at Hursthead Infants?

In Key Stage 1 all Design and Technology units follow the same process which is outlined below.

Children begin a project by evaluating a variety of existing products.

1. Design – generating and sharing ideas collectively, consider simple design criteria, developing and recording their own ideas using a design sheet, test ideas
2. Make – experiment using tools and materials to perform practical tasks, perform simple food preparation tasks, follow a simple plan/design, consider characteristics of materials and their suitability, use simple finishing techniques
3. Evaluate – explore and evaluate a range of existing products, identify strengths of individual projects and suggest improvements, evaluate product against a simple design criteria

### Technical Knowledge:

- ♣ build structures, exploring how they can be made stronger, stiffer and more stable
- ♣ explore and use mechanisms, such as levers, sliders, wheels and axles, in their products.

Design and Technology Projects

| Topic overview | Autumn                                                                                                                                                              | Spring                                                                                                       | Summer                                                                                                                         |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
|                | All about me<br>Traditional tales                                                                                                                                   | Water<br>Dinosaurs                                                                                           | Animals<br>Our World                                                                                                           |
| EYFS           | House for the Three Bears (structures)<br>Christmas decoration (textiles)<br><br>+ ongoing construction challenges and exploring mechanisms in continuous provision | Boats (structures)<br><br>+ ongoing construction challenges and exploring mechanisms in continuous provision | Fruit kebabs (cooking and nutrition)<br><br>+ ongoing construction challenges and exploring mechanisms in continuous provision |
|                | Our Living World                                                                                                                                                    | Changes                                                                                                      | Journeys                                                                                                                       |
| Year 1         | Hedgehog houses (structures)                                                                                                                                        | Moving pictures (mechanisms)                                                                                 | Healthy sandwich (cooking and nutrition)                                                                                       |
|                | Remember, Remember                                                                                                                                                  | Mighty Mountains                                                                                             | All around the world                                                                                                           |
| Year 2         | Christmas decoration (textiles)                                                                                                                                     | Mountaineer shelter (structures)<br>Vegetable curry (cooking and nutrition)                                  | Wheelie luggage (mechanisms)                                                                                                   |

| D&T progression | EYFS-Reception                                                                                                                                                                                                                               | Year 1                                                                                                                                                                                                                                                                                                                                                                                                    | Year 2                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                 | <b>Projects:</b><br>Fruit kebabs (cooking and nutrition)<br>House for ‘Three Bears’ (structures)<br>Junk model – boat, animal (structures)<br>Early needle skills (textiles)<br>Lego Challenge (structures)<br>Vehicles (mechanisms)         | <b>Projects:</b><br>Hedgehog houses (structures)<br>Moving pictures (mechanisms)<br>Healthy Sandwiches (nutrition & cooking)                                                                                                                                                                                                                                                                              | <b>Projects</b><br>Vegetable curry (cooking and nutrition)<br>Christmas hanging decoration (textiles)<br>Wheelie luggage (mechanisms)<br>Mountaineer Shelter (structures)                                                                                                                                                                                                                                                                                          |
| Design          | Exploring existing products, teacher guided and collective sharing of ideas. Begin to develop their own ideas. Use story-based contexts as starting points for their design. Begin to consider who will use their product and its relevance. | Begin to evaluate existing products. Develop individual designs for moving pictures and hedgehog houses. Begin to consider simple design criteria, including user, purpose and function. Introduction to design sheets to record and illustrate to select features of their design (joins, shape, structure, finishing details).                                                                          | Evaluate existing products to shape their ideas. Develop understanding of design criteria, using design sheets and labelled diagrams to indicate their choice of materials and components. Model their ideas using templates and mock-ups to test ideas before making. Develop their own templates.                                                                                                                                                                |
| Make            | Experiment with using tools and materials. Begin to perform simple tasks developing skills such as cutting, rolling, shaping, joining. With adult support mix, roll and cut foods. Begin to learn early sewing skills.                       | With support follow a simple plan. Begin to select from a range of tools (scissors, knife, peeler). Begin to consider characteristics of materials and their suitability, including ingredients. Learn about safety and food hygiene. Cut, assemble and combine materials and components, with adult support where necessary. Use simple finishing techniques to improve the appearance of their product. | With support follow a simple plan or recipe. Select from a wider range of tools including G-clamp and hacksaw. Select appropriate materials based on the characteristics and their suitability. With help measure and mark out, use template and develop their own. Use running or blanket stitch and 2D patterns to create a 3D product, with adult support where necessary. With support measure and weigh ingredients using a heat source for cooking hot food. |
| Evaluate        | Designated space for models and creative endeavours to be displayed and stored for continued adaptation and refinement.                                                                                                                      | Begin to explore existing products through discussion, identifying positive aspects and things to improve. Begin to discuss their individual design ideas and what they are making. Start to identify strengths of their product and possible changes they                                                                                                                                                | Evaluate existing relating these to their developing designs. Discuss and illustrate their individual design ideas (diagrams, design sheet) and explain how their product will work. Explore what materials are made from identify strengths                                                                                                                                                                                                                       |

|                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <p>could make to improve their existing design. Evaluate their product against their simple design criteria.</p>                                                                                                                                                                                                                                                                                 | <p>of their product and as they are working, possibly identify changes they could make to refine their existing design. Evaluate their product against their simple design criteria. Begin to understand that the iterative process sometimes involves repeating certain stages of the process.</p>                                                                                                            |
| Technical Knowledge                                                                                                       | <p>Explore structure and making these and most stable using construction kits and materials inside and outside the classroom, including natural materials. Use toys, moving vehicles in the classroom to start to understand how objects move. Begin to understand some of the properties of materials and how they can be used to make things.</p> <p>Use a needle to learn early sewing skills. With support learn that ingredients can be mixed to create recipes and that hygiene and using tools and utensils safely is important.</p> | <p>Explore and use mechanisms (pivots, sliders) in their products. Consider how structure can affect performance and that materials and components can make products stronger and more stable.</p>                                                                                                                                                                                               | <p>Explore and use mechanisms (axles, wheels) in their product and understand how these work. Build a simple structure and understand how it can be made stronger, stiffer and more stable. Use this knowledge to talk about and gain a better understanding of the simple working of components and materials.</p>                                                                                            |
| <p>Cooking &amp; Nutrition – principles of a healthy diet to prepare dishes</p> <p>Knowledge of where food comes from</p> | <p>Begin to discuss what constitutes a healthy diet and how it is important to help us grow.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p>Children use the basic principles of a healthy and varied diet to prepare dishes. They understand that all food comes from plants or animals.</p> <p>They can name foods into the five groups in the Eatwell Guide and understand that everyone should eat at least five portions of fruit and vegetables every day. They prepare dishes (sandwiches) using foods from the Eatwell Guide.</p> | <p>They understand that all food comes from plants or animals and that food has to be farmed, grown elsewhere or caught. They can name and sort foods into the five groups in the Eatwell Guide. They understand that everyone should eat at least five portions of fruit and vegetables every day and start to explain why. They use what they know about the Eatwell Guide to design and prepare dishes.</p> |

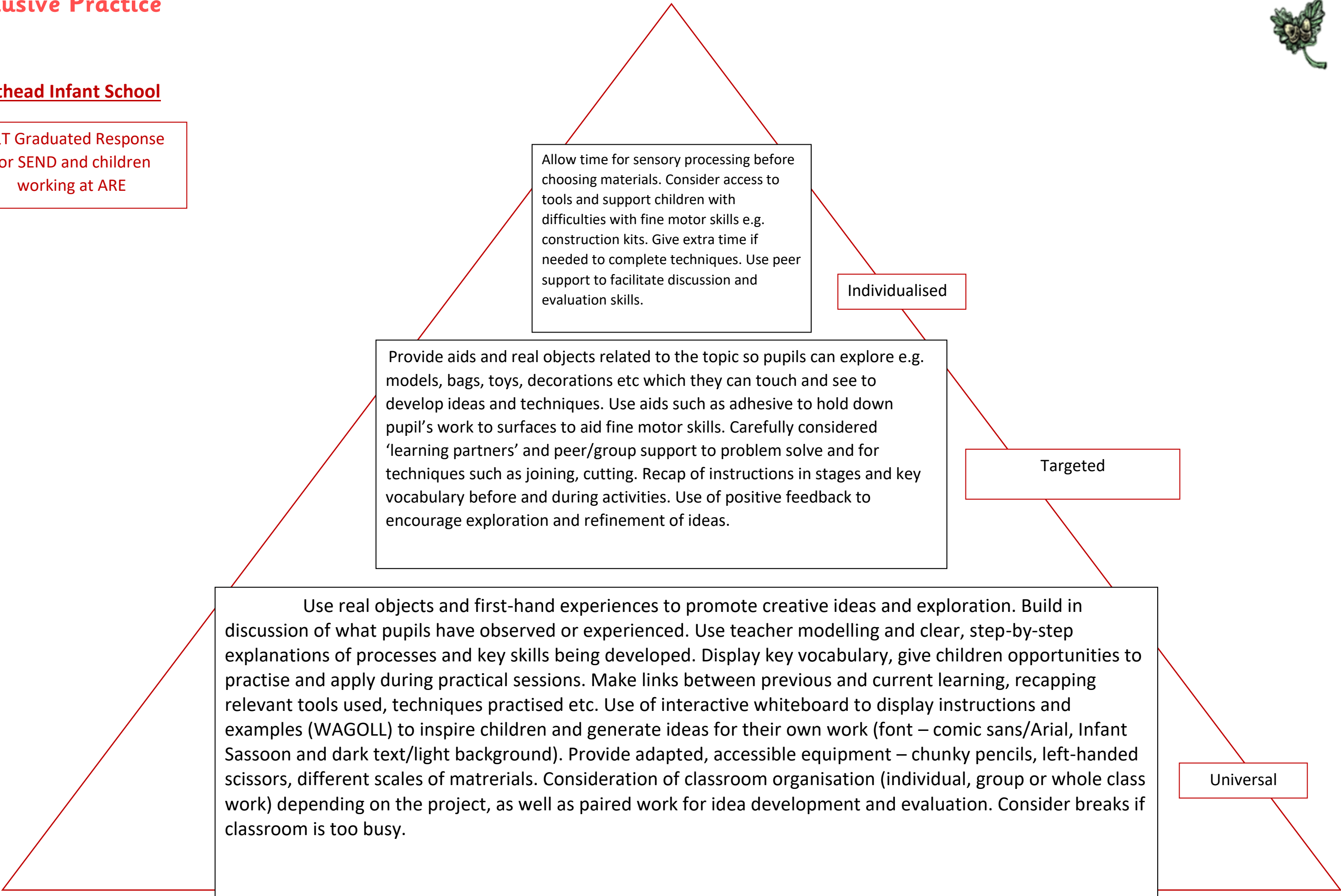


Inclusive Practice



Hursthead Infant School

D&T Graduated Response  
for SEND and children  
working at ARE







## Examples of Design and Technology work:

Reception – Junk model boats



Yr 1 – Hedgehog houses



Yr 2 – Wheelie luggage

## Extra opportunities for Design and Technology:

Building club – KS1



## Pupil Voice

‘I enjoyed learning about and designing things using levers and pulleys.’

‘We design and create lots of different products like hedgehog houses.’

‘We learn about how to join materials in different ways, like sewing, gluing, stapling.’

‘We had to make sure that our hedgehog house was camouflaged and waterproof.’

## CPD

This can take many forms including but not limited to: staff meetings, attendance at subject leader meetings, design and technology specific training linked to phases/year groups. Engagement in this training allows for the development of staff confidence, knowledge and curriculum coverage across the school.

All staff also have access to Projects on a Page to access resources and training.

Governors are also kept up to date with any changes made to the design and technology curriculum through presentations by the subject coordinator and regular visits into school.



# Evaluating existing products



# Designing

I can design a house for a hedgehog.

I am designing a house for: a \* Hedgehog

My hedgehog house must be: warm and camouflaged  
waterproof



List of tools and materials

|                                                                                                 |                                     |                                                                                               |                                     |
|-------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------|
|  Big box     | <input type="checkbox"/>            |  Tarpaulin | <input checked="" type="checkbox"/> |
|  Small box   | <input checked="" type="checkbox"/> |  Newspaper | <input type="checkbox"/>            |
|  Cotton wool | <input checked="" type="checkbox"/> |  Twigs     | <input checked="" type="checkbox"/> |
|  Scissors    | <input type="checkbox"/>            |  Leaves    | <input checked="" type="checkbox"/> |



Making



Evaluating

