

# ONE VOICE DESIGN TECHNOLOGY AT TORKINGTON PRIMARY SCHOOL



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# INTENT

## DESIGN AND TECHNOLOGY



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# INTENT- Design and Technology (DT)



Design and Technology at Torkington instils qualities such as curiosity, enquiry and determination. Students are inspired, engaged and excited through carrying out a range of effective research and design and make tasks. Students thrive in learning how to work independently and collaboratively to gain an in-depth understanding of the creative and problem-solving process. The sense of achievement and the rewarding nature of the subject results in a tangible manifestation of pride in the completion of a product.

We intend to design a design technology curriculum with appropriate subject knowledge, skills and understanding as set out in the National Curriculum Design Technology Programmes of study, to fulfil the duties of the NC whereby schools must provide a balanced and broadly-based curriculum

## How does the Design Technology curriculum take account of the needs of all pupils, including your most disadvantaged and SEND pupils?

DT is often taught as a whole class or ½ class lesson, dependant on the age of class and the art subject being delivered. The children are taught a new skill and create a modelled example of how they can demonstrate this. Within the scheme there are three levels of differentiated tasks for the children to explore. Differentiation task outcome options through resources is used as a secondary option when scaffolded support is needed. At the point of need, teacher and TA intervention is made to children who have been identified as struggling or in need of an extra challenge.

## How do you ensure that the Design Technology curriculum guarantees that pupils in Years 2 and 6 have full coverage which is not lessened by the amount of additional time given to English and maths?

At Torkington, DT is taught every other half term. Children will present their weekly sessions work in their DT sketch books.

# IMPLEMENTATION

DESIGN AND TECHNOLOGY



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# IMPLEMENTATION- DT



- ▶ Clear and comprehensive scheme of work in line with the National Curriculum- The Design Technology National Curriculum and EYFS is planned for and covered in full within the EYFS, KS1 and KS2 school curriculum. Whilst the EYFS and National Curriculum forms the foundation of our curriculum, we make sure that children learn additional skills, knowledge and understanding and enhance our curriculum as and when necessary.
- ▶ Delivery of design and technology projects with a clear structure.
- ▶ Delivery showing clear following of the design process where each unit follows: research, design, make and evaluate.
- ▶ A range of skills will be taught ensuring that children are aware of health and safety issues related to the tasks undertaken
- ▶ Clear and appropriate cross curricular links to underpin learning in multi areas across the curriculum giving the children opportunities to learn life skills and apply skills to ‘hands on’ situations in a purposeful context.
- ▶ Independent learning: In design technology children may well be asked to solve problems and develop their learning independently. This allows the children to have ownership over their curriculum and lead their own learning in Design Technology.
- ▶ Collaborative learning: In design and technology children may well be asked to work as part of a team learning to support and help one another towards a challenging, yet rewarding goal.

# Plan Bee



## DT Whole School Curriculum Pack

A complete DT curriculum for Year 1 to Year 6

### What is the DT Whole School Curriculum Pack?

- A series of Design & Technology schemes of work arranged across the Autumn, Spring and Summer terms for all year groups from Year 1 to Year 6 (one scheme of work per term per year group)
- Each scheme of work contains between five and seven ready-to-teach DT lessons
- Each individual lesson includes a detailed plan, a slideshow presentation for the teaching input, differentiated activities and a range of printable resources.

### Why use our DT Whole School Curriculum Pack?

- Deliver a complete DT curriculum that meticulously covers all the necessary National Curriculum objectives for Design & Technology across KS1 and KS2
- Embed consistency across year groups, phases and key stages
- Ensure confidence in teaching DT from all staff members
- High-quality prepared planning written by experienced teachers
- Clearly mapped knowledge and skills progression.

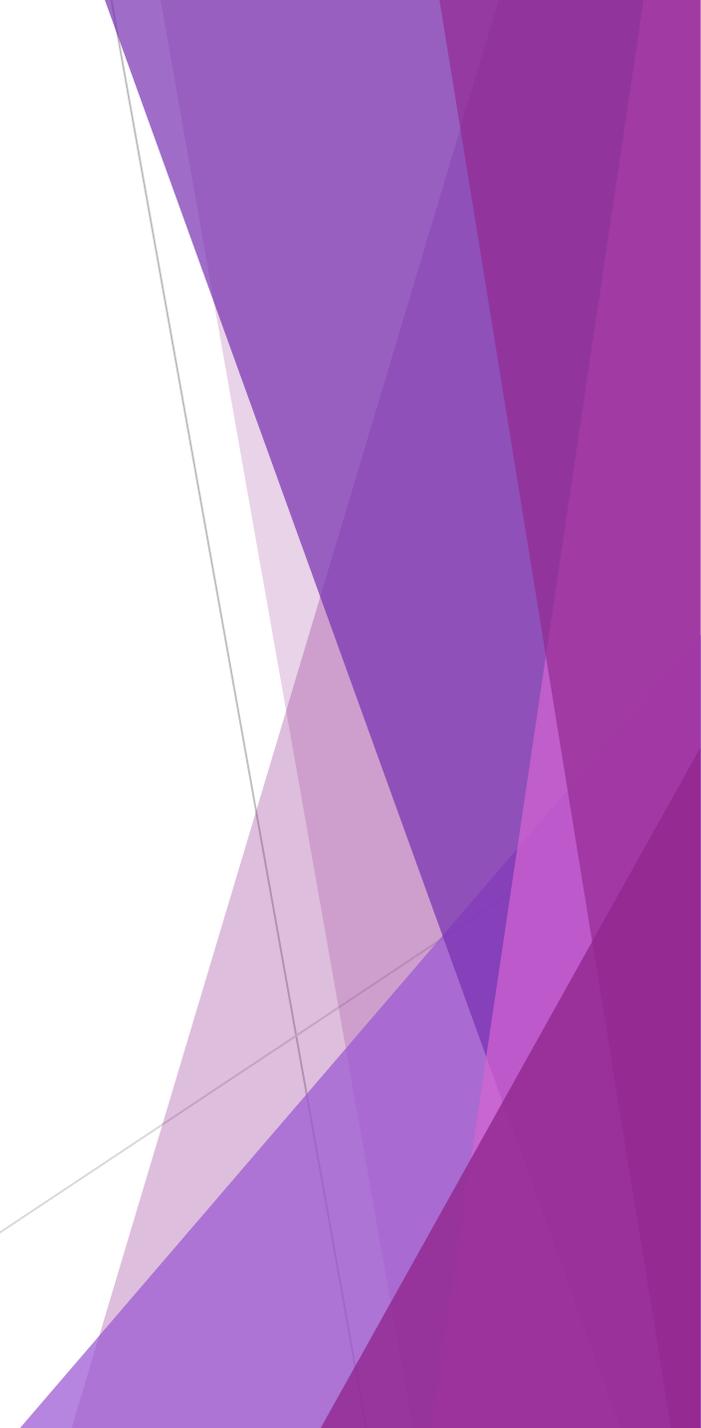


18 ready-to-teach DT schemes of work

Complete coverage of National Curriculum DT objectives

Built-in knowledge and skills progression

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# IMPLEMENTATION- DT

## Whole School DT Progression

This whole school progression allows for the children to build a solid foundation of skills that is then development and enhanced as they move through each key stage. The skills the children learn in each lesson are based around the main elements of the Design and Technology curriculum.



DT Whole School Curriculum Pack : Year 1 to Year 6

SKU: bulk2020



	Autumn Term	Spring Term	Summer Term
Year 1	Eat More Fruit and Vegetables	Moving Minibeasts	Stable Structures
Year 2	Puppets	Vehicles	Perfect Pizzas
Year 3	Storybooks	British Inventors	Light-Up Signs
Year 4	Seasonal Stockings	Making Mini Greenhouses	Seasonal Food
Year 5	Building Bridges	Chinese Inventions	Fashion and Textiles
Year 6	Programming Pioneers	Bird House Builders	Burgers

# Implementation

## Anatomy of a PlanBee DT Lesson:



### Slides to guide you and your class through the teaching input



### Slides to bring your class back together for the plenary



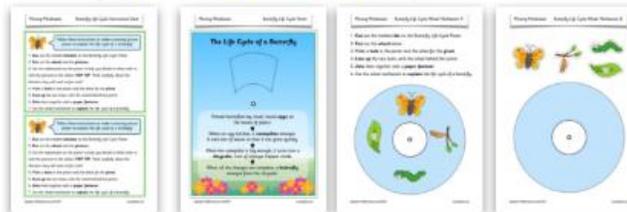
Moving Mini-beasts	
IT	Year 1/2
<b>Learning Objectives</b> To be able to create a wheel mechanism.	<b>Resources</b> Slides Mini-beast Wheel Mechanism A/B/C/D Scissors, sticky tack, paper fasteners, beads Butterfly Life Cycle Poster (FSD7 activity only) Butterfly Life Cycle Wheel Mechanism A/B (FSD7 activity) Butterfly Life Cycle Instructions Card (FSD7 activity only)
<b>Teaching Input</b> <ul style="list-style-type: none"> <li>Can you remember the two different mechanisms we have used to make our moving pictures so far? Explain to a partner how each one works.</li> <li>Tell the children that today we are going to look at a third type of mechanism. Show children the pictures of the wheel mechanisms. Which part do you think moves? How?</li> <li>Explain that the goal today is to create a larger wheel to move around the inside, smaller wheel, and the insect it looks like the bees are flying around the inner. Display the equipment needed to make this moving picture. With a partner, can you explain how to make it?</li> <li>Use the following slides to order and discuss the steps needed to create a simple wheel mechanism.</li> <li>Now show children the equipment needed for a different, slightly more complicated, construct moving picture that uses a wheel mechanism. How could this equipment be used to make a moving picture of a butterfly flying through the air?</li> <li>Again, use the following slides to display and discuss the steps needed to make this picture, which incorporates a wheel mechanism.</li> <li>Tell the children that it is now their turn to produce moving pictures using this mechanism.</li> </ul>	
<b>Main Activity</b> Teacher Note: Depending on your children's fine motor skills, you may wish to enlarge the Mini-beast Wheel Mechanism sheets for the slower and middle-ability groups to A3. As a challenge for the higher-ability group, keep the size of the worksheets as A4. You may also wish to photocopy the Mini-beast Wheel Mechanism sheets onto card to make them sturdier. Lower ability: Give children the choice of one of the Mini-beast Wheel Mechanism A/B sheets, and the equipment they will need to create the moving picture. Encourage them to discuss with each other how the mechanism is made and works. Middle ability: Give children the choice of one of the Mini-beast Wheel Mechanism C/D sheets, and the equipment they will need to create the moving picture. Encourage them to discuss with each other how the mechanism is made and works. Higher ability: Give children the choice of one of the Mini-beast Wheel Mechanism C/D sheets, and the equipment they will need to create the moving picture. Children are challenged to work out where the holes for the paper should be made.	
<b>Fancy something different...?</b> Teacher Note: You may wish to photocopy the Butterfly Life Cycle sheets onto card to make them sturdier. <ul style="list-style-type: none"> <li>Give each child the Butterfly Life Cycle Poster and (dependent on ability) either Butterfly Life Cycle Wheel Mechanism A, or Butterfly Life Cycle Wheel Mechanism B along with a Butterfly Life Cycle Instructions Card.</li> <li>Children follow the instructions to make a moving picture poster. Once they have completed their poster, encourage them to use the wheel mechanisms to help them explain the life cycle of a butterfly.</li> </ul>	
<b>Plenary</b> We have now explored three different ways of making moving pictures. Can you match up the pictures of the mechanisms that have been used? Which did you enjoy making the most? Why? Which did you find most difficult? Why? Which do you think you would like to use again? Why? Choose ideas for a class.	<b>Assessment Questions</b> <ul style="list-style-type: none"> <li>Can children describe what a pivot is?</li> <li>Can children cut out and join components to create a wheel mechanism?</li> <li>Can children evaluate their work and identify areas for future development?</li> </ul>

Assessment questions to help you track progress (free editable assessment grids available for each scheme of work)

### Printable resources to support the differentiated main activity for children's independent learning



### Printable resources for the alternative 'Fancy Something Different...?' activity



# EXTRA CURRICULAR OPPORTUNITIES

- ▶ Each week children from reception to Year 6 are offered extra curricular clubs, that are run by our teachers and teaching assistants.
- ▶ The children have a choice of clubs that include opportunities to rehearse, explore and develop their DT skills and knowledge.
- ▶ **Reception and KS1** are offered: Messy and Science club.
- ▶ **KS2 are offered:** Computing, cookery and DT club



# IMPACT

## DESIGN TECHNOLOGY



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# IMPACT

- ▶ DT learning is recorded in sketchbooks across the school. We encourage children to treat their sketchbooks like journals and their thoughts and learning are recorded in a format that they would like to use, for example, using thought bubbles. Each child is unique and each sketchbook should be unique, enabling children to develop their independence and creativity.
- ▶ Teachers assess children's knowledge, understanding and skills DT by making observations of the children working during lessons. Each session has key assessment questions that will be discussed. Feedback given to children by their peers or teachers is in the form of post-it notes over the learning so that their DT is not marked in the process. Children are also encouraged to be critical of their own work, highlighting their own next steps. After each half term's work assessment grids are completed by class teachers, showing children's attainment. After the assessment grids have been updated, the DT leader analyses the data and provides feedback in order to inform and improve future practice.



# IMPACT - PUPIL VOICE/BOOK LOOK



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# IMPACT - STAFF VOICE



NEXT STEPS:

