

Design Technology Curriculum



Intent

At the Federation of Holy Trinity Schools, we believe Design Technology helps us to develop as reflective learners as we work through the design process. Through design technology, we are able to work collaboratively to solve problems and find solutions, teaching us to deal with uncertainty whilst developing communication, organisational and other practical life skills. In design technology, we learn to appreciate the needs of others, the built environment and the likely impact of future technologies.

As DT Inventors at The Federation of Holy Trinity Church of England School we want...

Design Technology to give pupils the opportunity to develop skills, knowledge and understanding of designing and making functional products.

Through design technology, pupils to develop the creative, technical and practical expertise needed to perform tasks confidently.

Pupils to develop their communication skills through design technology, when they are sharing ideas and explaining their thinking.



Meet Westwood!

Westwood is a designer and maker. Designers and makers use their skills and their knowledge to design or create a solution to a problem. Designers and makers plan the look or workings of something prior to it being made, by preparing drawings or plans. They use their skills and their knowledge to design or create a solution to a problem.



The Four 'C's

- Communication
- Conflict
- Conservation
- Culture

Knowledge building



Food Technology



Uses and Purposes



Product Research



Design and Technology vocabulary



Product Features



Invention and Development

Uses and Purposes



Know what they are designing and making and say what its purpose is



Know why they need to make products suitable for intended end users and how this influences design



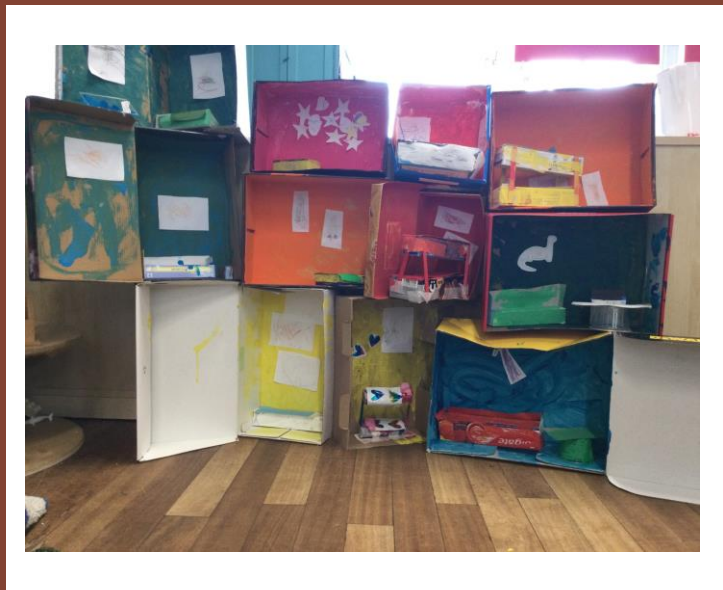
Understand the purpose of their product and know which design features will appeal to intended users

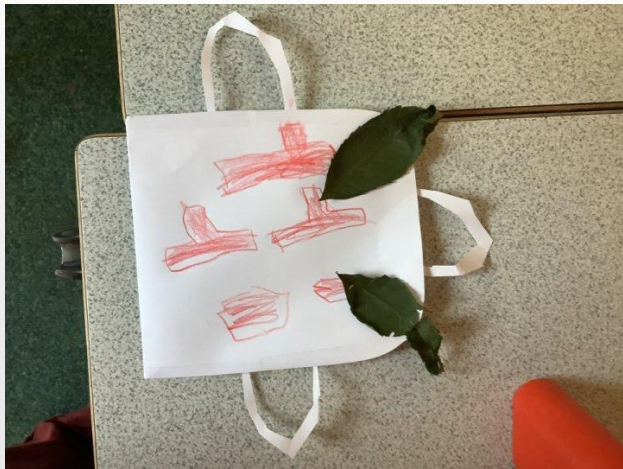


Know what impact products have beyond their intended purpose



Know what they are
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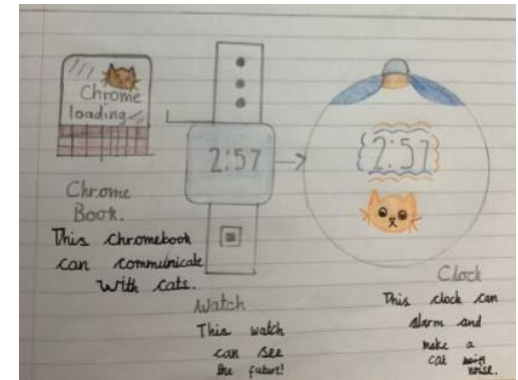
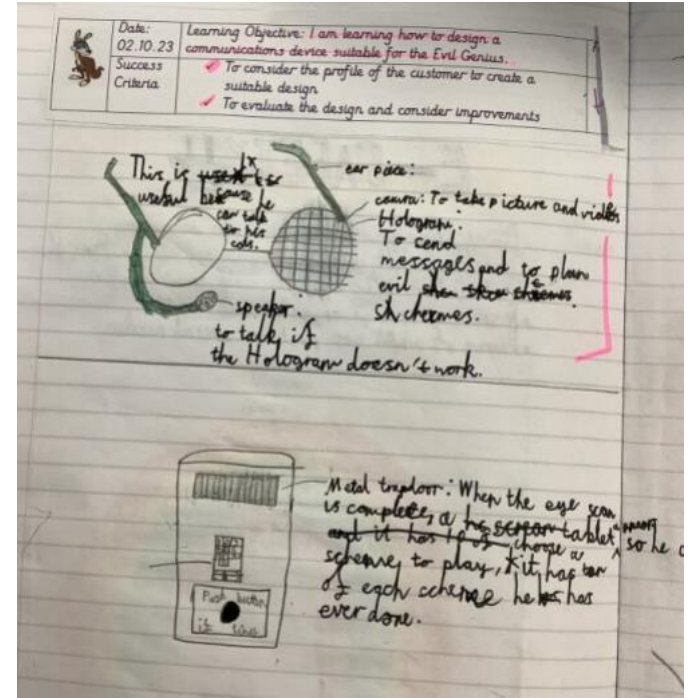


Know why they need to make products suitable for intended end users and how this influences design

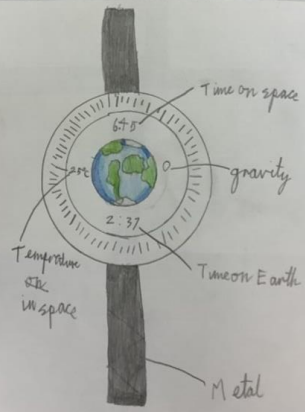




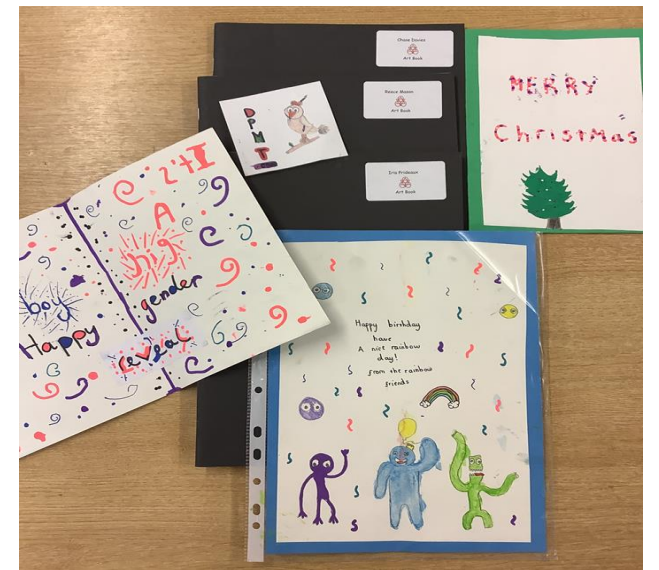
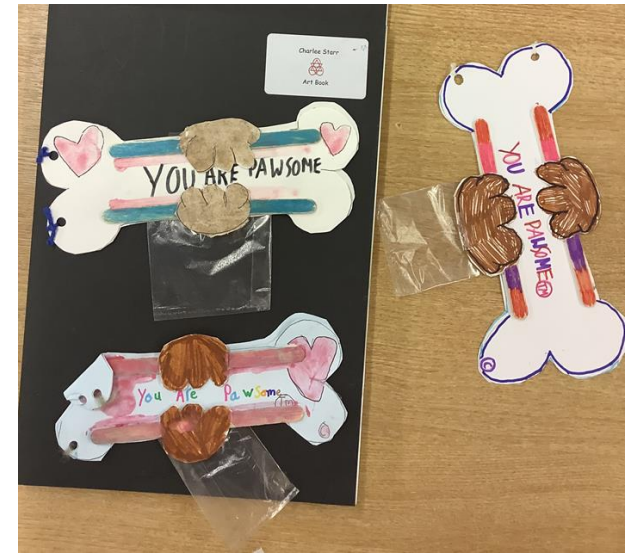
Understand the purpose of their product and know which design features will appeal to intended users



Date: 18.10.23	Learning Objective: Design a timekeeping device for a spaceman or	Feedback
Success Criteria	<ul style="list-style-type: none"> Consider different time keeping devices and the key features they must have. Select appropriate features for a device which would benefit a spaceman. Begin to design your time keeping device. 	



Know what impact products have beyond their intended purpose





Design Technology Skills Map



	C1	C2				C3	C4
N	'Happy to Be Me'	'Let's Play'	'Come and Join the Celebration'	'Jurassic Park'	'Animal Crackers'	'No Place Like Home'	'Under the Sea'
R	'Tell Us a Story'	'Help is at Hand'	'Food Glorious Food'	'Way Back When...' Hats Had Brims	'If You Go Down to the Woods...'	'What On Earth...?'	'Come Fly <u>With</u> Me!'
	Joining Materials	Joining Materials	Joining Materials	Joining Materials	Joining Materials	Joining Materials	Joining Materials
Y1	' <u>Happy</u> Ever After'	'Unity in the Community'	'Royal Patrons'	'Never Eat Shredded Wheat'	'Children's Champion'	'Light Up the World'	'Come Fly <u>With</u> Me!'
	The Fairy Design Project Food Technology	SDT: Structures				SDT: Mechanisms - Sliders and Levers 2	SDT: Mechanisms - Sliders and Levers 1
Y2	'Inter-Nation Media Station'	'Land Ahoy!'	'Dancing Spy'	'Paddington's Passport'	'Record Breaker'	'Going Wild!' All About Animals	'Zero to Hero'
	Design Nan's Outfit Task: Textiles	The Pirate Design Project				SDT: Textiles	The Gift Task
Y3	'That's All, Folks!'	'Athens v Sparta'	'Lindow Man'	'Rocky the Dinosaur '	Out and <u>About</u>	Under the Canopy'	'Come Fly <u>With</u> Me!'
	SDT: Mechanisms - Levers and Linkages 2	SDT: Structures				The Tribal Child Design Project	Food Technology Benin Plaque Task
Y4	'Lightning Speed'	'Law and Order'	'Viking Warrior'	'May the Force Be <u>With</u> You'	'Saxon King'	Picture Our Planet	'Cry Freedom'
	The Evil Genius Design Project	SDT: Mechanisms - Levers and Linkages	Textiles			SDT: Textiles Weaving Food Technology	
Y5	'Mission Control'	'You're Not Invited'	'Fighting Footballer'	'Go With <u>The</u> Flow'	'Pharaoh Queen'	'Global Warning'	'Come Fly <u>With</u> Me!'
	The Spaceman Design Project	The Soldier Design Project				Board Game Task	SDT: Structures 1 Dream Catchers Task
Y6	'A World of Bright Ideas'	'Wars of the World'	'True Crime'	'In Your Element'	'Time Team'	'Full of Beans'	'I Have a Dream...'
	SDT: Structures 2	SDT - Electronics 1				SDT: Electronics 2	SDT: Textiles

'Happily Ever After'

The Fairy Design Project Skills

Dt1 Explore the sensory qualities of materials

Dt3 Identify a target group for what they intend to design and make

Dt4 Recognise how structures can be made, stronger, stiffer and more stable

Dt6 Follow safe procedures

Dt7 Take account of simple properties of materials when deciding how to cut, shape, combine and join them

Dt8 Use tools and materials with help

'Come Fly With Me!'

Dream Catchers Task

Structures 1

Skills


Dt35 Investigate ways of meeting design challenges with a construction focus

Dt36 Investigate how the work of individuals in design and technology has helped to shape the world

Dt39 Estimate and measure using appropriate instruments and units

Dt40 Plan what they have to do, including how to use materials, equipment and processes

Dt41 Communicate design ideas in different ways e.g. discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer aided design

LO & SC	Script	Learning Experience	Big Questions Answered	Juicy Jargon Spoken
<p>DT 18.10.23 Design a timekeeping device for a spaceman to use.</p> <ul style="list-style-type: none"> ✓ Consider different time keeping devices and the key features they must have. ✓ Select appropriate features for a device which would benefit a spaceman. ✓ Begin to design your time keeping device 	<p>DT: Today we are working with Westwood who is a designer and maker. Designers and Makers use their skills and their knowledge to design or create a solution to a problem.</p> 	<p>Use the given profile of a spaceman, look at what they do and their needs when in space. Consider what type of timepiece they would need and what it could do/tell them. Design a timekeeping device for the spaceman considering the purpose for this invention and how the design features will appeal to the spaceman. Label key features. Consider what materials you will need to make the prototype. Make a list of the resources you will need to make this prototype.</p>	<p>What sort of time piece would a spaceman need. How much pressure should it withstand? Could it do anything else?</p>	<p>Space, pressure, time piece, time difference, compass, purpose, design features, prototype.</p>
<p>Session 7</p>				

Subject Leadership

- Structure and oversight – big picture
- Monitoring:
 - Sketch books and completed designs/products
 - Planning
 - Pupil voice
 - The learning environment: areas of provision in EYFS



Pupils	AR	CO	DE	DR	GE	HI	MU	SC
Year Five Average	3.9	3.8	3.8	3.8	3.7	3.7	3.8	3.7



Next steps:

Further personalise and develop

Exploit opportunities for enrichment activities

Refine and adapt planning to focus on the development of key skills

Develop links to other design professionals and establishments

Challenge for greater depth and scaffolding/adaptations