WOMBWELL PARK STREET PRIMARY SCHOOL

WHOLE SCHOOL SUBJECT OVERVIEW

SUBJECT: D&T SUBJECT LEADER: Mr J Davison (L.Longden mentor)

YEAR GROUP: EYFS FOR FULL DETAILS OF HOW EARLY LEARNING GOALS ARE TAUGHT AND ASSESSED REFER TO EYFS PLANNING OVERVIEW		
Area of learning: Understanding the World	**Pupils will be taught:** Understanding the world involves guiding children to make sense of their physical world and their community. The frequency and range of children's personal experiences increases their knowledge and sense of the world around them –from visiting parks, libraries and museums to meeting important members of society such as police officers, nurses and firefighters. In addition, listening to a broad selection of stories, non-fiction, rhymes and poems will foster their understanding of our culturally, socially, technologically and ecologically diverse world. As well as building important knowledge, this extends their familiarity with words that support understanding across domains. Enriching and widening children's vocabulary will support later reading comprehension.	**By the end of EYFS expected outcomes for learning:** **The Natural World ELG:** Children at the expected level of development will: -Explore the natural world around them, making observations and drawing pictures of animals and plants; -Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class; -Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.
Area of learning: Expressive Arts and Design	**Pupils will be taught:** 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.	**By the end of EYFS expected outcomes for learning:** **Creating with Materials ELG:** Children at the expected level of development will: -Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; -Share their creations, explaining the process they have used; -Make use of props and materials when role playing characters in narratives and stories.
Area of learning: Communication and Language Development	**Pupils will be taught:** The development of children's spoken language underpins all seven areas of learning and development. Children's back-and-forth interactions from an early age form the foundations for language and cognitive development. The number and quality of the conversations they have with adults and peers throughout the day in a language-rich environment is crucial. By commenting on what children are interested in or doing and echoing back what they say with new vocabulary added, practitioners will build children's language effectively. Reading frequently to children, and engaging them actively in stories, non-fiction, rhymes and poems, and then providing them with extensive opportunities to use and embed new words in a range of contexts, will give children the opportunity to thrive. Through conversation, story-telling and role play, where children share their ideas with support and modelling from their teacher, and sensitive questioning that invites them to elaborate, children become comfortable using a rich range of vocabulary and language structures.	**By the end of EYFS expected outcomes for learning:** **Listening, Attention and Understanding:** Children at the expected level of development will: -Listen attentively and respond to what they hear with relevant questions, comments and actions when being read to and during whole class discussions and small group interactions; -Make comments about what they have heard and ask questions to clarify their understanding; -Hold conversation when engaged in back-and-forth exchanges with their teacher and peers. **Speaking:** Children at the expected level of development will: -Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary; -Offer explanations for why things might happen, making use of recently introduced vocabulary from stories, non-fiction, rhymes and poems when appropriate - Express their ideas and feelings about their experiences using full sentences, including use of past, present and future tenses and making use of conjunctions, with modelling and support from their teacher.

Pupils will explore Design and Technology through the context of a range of engaging themes for learning.	Autumn 1: Marvellous Me	Autumn 2: Sparkle and Shine
	Spring 1: Magical Storyland	Spring 2: Amazing Animals
	Summer 1: Watch it Grow	Summer 2: Around the World

Y R/1, 1 & 2

DELIVERY METHOD: Design Technology projects tend to be blocked each half term. Elements of cross-curricular design and evaluation, exploration of design of new technology and inventions are also covered in art, Incredible Me sessions, geography and history.. **ENRICHMENT/EXTRA-CURRICULAR OPPORTUNITIES:** May include opportunities such as: technology and engineering is a focus of Science and Technology Week, celebration assemblies, class presentations and collaborative ventures with other schools in the Trust.

OUTLINE OF TERMLY LEARNING THEMES – Description of historical content and context	**NC CONTENT: CONTENT, KNOWLEDGE AND SKILLS What pupils will be taught to do, know and understand**	**LEARNING OUTCOMES:**	**KEY VOCABULARY CLASS TEXTS**
Y R/1, 1 & 2 YEAR A AUTUMN: Ya What is weather like around the world? Design, make and evaluate, weather wheels and weather stations Weather Vane Weather Wheel SPRING: Ya What was life like in a castle? Design, make and evaluate castles. Research and identify design features, develop own designs and then evaluate. FOCUS ON FREE STANDING STRUCTURES 1 / 2 D&T ASSOCIATION POSTER TO INFORM AND SUPPORT SUMMER: Ya. How do plants and animals grow? Design, make and evaluated shoe box habitats (for school geckos or animal of choice) FOCUS ON TEXTILES – TEMPLATES AND JOINING TECHNIQUES 1 / 2 D&T ASSOCIATION POSTER TO INFORM AND SUPPORT Y R/1, 1 & 2 YEAR B AUTUMN: Yb What is it like in different parts of the UK? Design and make a healthy afternoon tea celebrating food from around the UK. Design sandwiches and prepare fruit and veg. FOCUS ON FOOD TECH – PREPARING FRUIT AND VEG 1 / 2 D&T ASSOCIATION POSTER TO INFORM AND SUPPORT SPRING:	KEY STAGE 1 D&T NATIONAL CURRICULUM (Refer to EYFS section above for R) **DESIGN** • design purposeful, functional, appealing products for themselves and other users based on design criteria • generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology **MAKE** • select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] • select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics **EVALUATE** • explore and evaluate a range of existing products • evaluate their ideas and products against design criteria **TECHNICAL KNOWELDGE** build structures, exploring how they can be made stronger, stiffer and more stable explore and use mechanisms [for example, levers, sliders, wheels and axles] in their products **COOKING AND NUTRITION** • understand where food comes from • use the basic principles of a healthy and varied diet to prepare dish the basic principles of a healthy and varied diet to prepare dishes	**DESIGN** **Y1** • I can say what I am making in different contexts: imaginary, story based, home, school, playground, nature reserve etc. • I am beginning to come up with ideas and experiment with different materials. **Y2** • I can say what I am making and who it is for. I can say what my product is for and how it will work. • I can generate ideas by drawing on my experiences. I can use my knowledge of existing products to help me generate my own. I can use construction kits and a range of other materials. **MAKE** **Y1** • I am beginning to plan by saying what I might do next. • I am beginning to use a range of materials including construction kits, textiles, and food ingredients. I am beginning to cut and shape materials independently. **Y2** • I can plan by saying what I might do next. I can select from a range of tools and equipment. • I can use a range of materials including construction kits, textiles, and food ingredients. I can mainly independently: measure, mark out, cut and shape materials. I am beginning to assemble, join and combine materials and components. **EVALUATE** **Y1** • I am beginning to talk about my design ideas and what I am making. • I have had the opportunity to explore a product I have found out what it is , who it is for and how it works **Y2** • I can talk about my designs and what I am making. I can make simple judgements about my products and ideas against a design criteria. • I have had the opportunity to explore a range of products. I have explored what they are, what they are for, who they are for, how they are used, what they are made from and where they might be used. **TECHNICAL KNOWLEDGE** **Y1** • I can with support make freestanding structures stronger and more stable. I am beginning to understand the working characteristics of some materials and components. **Y2**	KEY VOCABULARY (to be introduced over KS1 and revisited over the phase) **Y1** mix attach stick join materials model **Y2** design support strengthen observe print dab craft ingredients recipe axle template

Yb. Why are these people famous? Linked to Great Fire of London Design, make and evaluate a fire engine. FOCUS ON WHEELS AND AXLES 1 / 2 D&T ASSOCIATION POSTER TO INFORM AND SUPPORT SUMMER: Yb Which plants and animals live at the seaside? Design, make and evaluate Seaside creature toy/puppet FOCUS ON SLIDERS AND LEVERS 1 / 2 D&T ASSOCIATION POSTER TO INFORM AND SUPPORT		• I have independently explored the movement of simple mechanisms such as wheels, levers, sliders and axles. I am beginning to use some correct technical vocabulary. **FOOD NUTRITION** **Y1** • I can name and sort foods into the 5 groups of the 'Eat Well' plate. I know that everyone should eat at least 5 portions of fruit and veg a day. Y2 • I can prepare simple dishes without using a heat source. I am beginning to use techniques such as cutting, peeling and grating. **MASTERY AND GREATER DEPTH** **MASTERY:** Obtaining greater levels of understanding and being able to apply learning in different contexts **WORKING AT GREATER DEPTH:** Learning can be transferred and applied in different contexts. Pupils can explain their understanding to others. **PUPILS CAN DEMONSTRATE:** **Independence –** Apply the skill or knowledge without recall to the teacher **Fluency –** Apply the knowledge and skill with a high level of confidence, showing resilience when the task becomes demanding **Application –** Apply the knowledge and skill to a range of different contexts, including other areas of the curriculum **Consistency –** Consistently use their skills, knowledge and understanding **Synthesise –** Organise ideas to make connections with other areas of learning and new ones **Re-visit –** Return to this aspect of learning after a break and still feel confident that they can work on the skill and knowledge without difficulty **Explain it –** Able to explain to others their understanding and perhaps offer peer learning support to others	

CONCEPTUAL/CROSS-CURRICULAR LINKS:

HISTORICAL CONCEPTUALLINKS: Importance of design and innovation through history

SCIENTIFIC CONCEPTUAL LINKS: Application of scientific principles during the design process. Concepts of innovation and invention.

MATHEMATICAL CONCPETUAL LINKS: The importance of accuracy in measurement.

ARTISTIC CONCEPTUAL LINKS: The importance of aesthetics during the design process. Links between cultural traditions and design. Design within each art form.

GEOGRAPHICAL CONCEPTUAL LINKS: How the physical and human characteristics link to the design process. Designs to make living in a particular geographical region more comfortable. Locality, habitats, wildlife, customs and traditions as inspiration for design.

Y 2/3 & 3

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OUTLINE OF TERMLY LEARNING THEMES – Description of historical content and context	**NC CONTENT: CONTENT, KNOWLEDGE AND SKILLS What pupils will be taught to do, know and understand**	**LEARNING OUTCOMES:**	**KEY VOCABULARY CLASS TEXTS**
Y 2/3 & 3 YEAR A AUTUMN Ya, How does South America compare to Wombwell? (focusing on Columbia/Brazil) Design, make and evaluate rainsticks. Create a carnival t-shirt. FOCUS ON TEXTILES – 2d SHAPE TO 3D PRODUCT Y3/4 D&T ASSOCIATION POSTER TO INFORM AND SUPPORT	Y2 & 3 NATIONAL CURRICULUM COVERAGE **DESIGN** • design purposeful, functional, appealing products for themselves and other users based on design criteria • generate, develop, model and communicate their ideas through talking, drawing, templates, mock-	**DESIGN** **.Y2** • I can say what I am making and who it is for. I can say what my product is for and how it will work. • I can generate ideas by drawing on my experiences. I can use my knowledge of existing products to help me generate my own. I can use construction kits and a range of other materials. **Y3**	KEY VOCABULARY (to be introduced over lower KS2 and revisited. All vocabulary from KS1 to be revisited and consolidated) **Y2**

WOMBWELL PARK STREET PRIMARY SCHOOL

SPRING Ya.What as life like in Britain from the Stone Age to the Iron Age? Tribes, hunting, gathering, farming and lifestyle Why did the Romans invade Britain? Who was Boudicca and why is she famous? Design, make and evaluate a primitive house based on research around roundhouses, FOCUS ON FREE STANDING STRUCTURES 1 / 2 D&T ASSOCIATION POSTER TO INFORM AND SUPPORT. FOCUS ON STRUCTURES SHELL STRUCTURES – 3 / 4 D&T ASSOCIATION POSTER TO INFORM AND SUPPORT SUMMER Ya – What do plants and animals need to be healthy? **Sketching/painting** Designing, making and evaluating a healthy meal RECAP FOCUS ON FOOD TECH – PREPARING FRUIT AND VEG 1 / 2 D&T ASSOCIATION POSTER TO INFORM AND SUPPORT FOCUS ON FOOD – HEALTHY AND VARIED DIET 3 / 4 D&T ASSOCIATION POSTER TO INFORM AND SUPPORT Y 2/3 & 3 YEAR B AUTUMN Yb. Where are the most famous national and international mountains and rivers? **Design, make and evaluate a water vessel** to carry a specified cargo over a given distance. SPRING Yb. What was life like in Britain from the Stone Age to the Iron Age? Technology and Travel Who were the Romans and why did they invade Britain? Design, make and evaluate a chariot or a cart to link to or be drawn by a horse. FOCUS ON WHEELS AND AXLES 1 / 2 D&T ASSOCIATION POSTER TO INFORM AND SUPPORT FOCUS ON Levers and LINKAGES 3 / 4 D&T ASSOCIATION POSTER TO INFORM AND SUPPORT SUMMER **Design, make and evaluate**	ups and, where appropriate, information and communication technology • **Generate, develop, model and communicate their ideas through discussion and annotated sketches**. **MAKE** • select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] • **Perform practical tasks accurately** • select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics • **Select from and use a wider range of tools** **EVALUATE** • explore and evaluate a range of existing products • evaluate their ideas and products against design criteria • evaluate their ideas and products against design criteria and consider the views of others to improve their work • **TECHNICAL KNOWELDGE** • build structures, exploring how they can be made stronger, stiffer and more stable explore and use mechanisms [for example, levers, sliders, wheels and axles] in their products • **understand and use mechanical systems in their products, such as gears, pulleys, cams, levers and linkages** **COOKING AND NUTRITION** • understand where food comes from • **understand and apply the principles of a healthy and varied diet**	• I can select tools and equipment suitable to the task. I can select materials and components suitable to the task • I can measure mark out, cut and shape materials. **MAKE** **Y2** • I can plan by saying what I might do next. I can select from a range of tools and equipment. • I can use a range of materials including construction kits, textiles, and food ingredients. I can mainly independently: measure, mark out, cut and shape materials. I am beginning to assemble, join and combine materials and components. **Y3** • I can gather information about the needs and wants of particular individuals and groups. I am beginning to develop my own design criteria and use these to inform my own ideas. **EVALUATE** **Y2** • I can talk about my designs and what I am making. I can make simple judgements about my products and ideas against a design criteria. • I have had the opportunity to explore a range of products. I have explored what they are, what they are for, who they are for, how they are used, what they are made from and where they might be used. **Y3** I can identify strengths and weaknesses in my ideas and products. I can consider the views of others. • I am beginning to investigate how well products have been designed and made. Why materials have been used and which methods of construction have been used. • I am beginning to investigate how well products work and how well a product achieves its purposes. • I have also investigated who designed and made a product and when it was designed and made. **TECHNICAL KNOWLEDGE** **Y2** • I have independently explored the movement of simple mechanisms such as wheels, levers, sliders and axles. I am beginning to use some correct technical vocabulary. **Y3** • I know that a single fabric shape can be used to make a 3d textile product. • I know how mechanical systems such as levers and linkages or pneumatic systems create movement. **FOOD NUTRITION** Y2 • I can prepare simple dishes without using a heat source. I am beginning to use techniques such as cutting, peeling and grating. **Y3** • I know that a healthy diet is made up from a variety and balance of different food and drink as depicted on the 'Eat Well' plate.	design support strengthen observe print dab craft ingredients recipe axle template **Y3** style construct structure create textile 2d 3d equipment product inventor levers linkages pneumatic

Yb <u>What is life like in the seas and oceans?</u> (link to Geography topic) Create a moving sea-creature toy RECAP LEVERS and LINKAGES 3 / 4 D&T ASSOCIATION POSTER TO INFORM AND SUPPORT FOCUS ON MECHANICAL SYSTEMS - PNEUMATICS 3 / 4 D&T ASSOCIATION POSTER TO INFORM AND SUPPORT		**MASTERY AND GREATER DEPTH** **MASTERY:** Obtaining greater levels of understanding and being able to apply learning in different contexts **WORKING AT GREATER DEPTH:** Learning can be transferred and applied in different contexts. Pupils can explain their understanding to others. **PUPILS CAN DEMONSTRATE:** **Independence –** Apply the skill or knowledge without recall to the teacher **Fluency –** Apply the knowledge and skill with a high level of confidence, showing resilience when the task becomes demanding **Application –** Apply the knowledge and skill to a range of different contexts, including other areas of the curriculum **Consistency –** Consistently use their skills, knowledge and understanding **Synthesise –** Organise ideas to make connections with other areas of learning and new ones **Re-visit –** Return to this aspect of learning after a break and still feel confident that they can work on the skill and knowledge without difficulty **Explain it –** Able to explain to others their understanding and perhaps offer peer learning support to others	

<u>CONCEPTUAL/CROSS-CURRICULAR LINKS:</u>

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Y 4, 4/5 & 5

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Y4,4/5&5 YEAR A: **AUTUMN** **<u>Ya Where would you like to visit in Europe?</u>** Designing, making and evaluating European Landmarks that light up but can be turned on and off. FOCUS ON ELECTRICAL SYSTEMS – SIMPLE CIRUCITS AND SWITCHES 3 / 4 D&T ASSOCIATION POSTER TO INFORM AND SUPPORT FOCUS ON FRAME STRUCTURES - 5 / 6 D&T ASSOCIATION POSTER TO INFORM AND SUPPORT	**Y4,4/5&5 YEAR A:** **DESIGN** • Use research and develop design criteria to inform the design of innovative, functional, appealing that are fit for purpose aimed at particular individuals or groups. • **generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design select from and use a wider range of tools and equipment to**	DESIGN Y 4 • I can select tools and equipment suitable to the task. I can select materials and components suitable to the task. I can order the mainstages of making • I can measure mark out, cut and shape materials and components with some accuracy Y 5	KEY VOCABULARY (to be introduced over upper KS2 and revisited. All vocabulary from lower KS2 and KS1 to be revisited and consolidated) Y4

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SPRING

Ya Who were the Anglo Saxons and Vikings?

Ancient Greeks Culture and Beliefs

Design, make and evaluate a Viking longboat toy using cams.

FOCUS ON MECHANICAL SYSTEMS - CAMS 5 / 6 D&T ASSOCIATION POSTER TO INFORM AND SUPPORT

SUMMER

Ya What on Earth is beyond our planet?

Design and make and evaluate a space buggy, which can be programmed using computer software.

Use of LEGO WEDO.2 software

FOCUS ON ELECTRICAL SYSTEMS – Simple programming and control 3 / 4 D&T ASSOCIATION POSTER TO INFORM AND SUPPORT

Y4,4/5&5 YEAR B:

AUTUMN

Yb How does Whitby compare to Wombwell?

Creating seaside souvenir packaging.

FOCUS ON STRUCTURES –SHELL STRUCTURES USING COMPUTER AIDED DESIGN – Simple programming and control 3 / 4 D&T ASSOCIATION POSTER TO INFORM AND SUPPORT

SPRING

Yb. What was life like in Wombwell during WW1?

Linking to science topic on forces design, make and evaluate products using pulleys or gears – link to WW1 finding safe ways to transport food, messages or ammunition.

FOCUS ON MECHANICAL SYSTEMS – PULLEYS OR GEARS 5 / 6 D&T ASSOCIATION POSTER TO INFORM AND SUPPORT

Who were the Ancient Greeks – innovation and legacy?

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perform practical tasks [for example, cutting, shaping, joining and finishing], accurately

MAKE

- Select from and use a wider range of materials and components including, including construction materials, textiles and ingredients, according to their characteristics.
- **select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately**

EVALUATE

- understand how key events and individuals in design and technology have helped shape the world
- **evaluate their ideas and products against their own design criteria and consider the views of others to improve their work**

TECHNICAL KNOWLEDGE

- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.

COOKING AND NUTRITION

- Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.
- Understand seasonality, and know where and how a variety of ingredients are grown**, reared, caught and processed**

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- I am beginning to independently carry out research, using surveys, interviews, questionnaires and web based resources. I can identify the needs, wants, preferences and values of a particular individuals and groups.

MAKE

Y4

- I can share and clarify ideas through discussion, model ideas with prototypes and use annotated sketches. I can generate realistic ideas, focusing on the needs of the user.

Y5

- I can produce appropriate lists of tools, equipment and materials I will use
- I can accurately assemble, join and combine materials and components.

EVALUATE

Y4

- I can consider the views of others including intended users to improve my work. I can refer to my design criteria as I design and make.
- I am beginning to investigate if a product meets the needs of the user.
- I can independently find out about one inventor, designer, engineer, chef or manufacturer who has developed ground-breaking products.

Y5

- I can critically evaluate the quality of the design, manufacture and fitness for purpose of my products as I design and make.
- I can find out about more than one inventor, designer, engineer, chef or manufacturer who has developed ground-breaking products. I can explain the impact and importance of their work

TECHNICAL KNOWLEDGE

Y4

- I know how to make strong, stiff shell structures.
- I know how simple electrical circuits and components can be used to create functional products. I know how to program a computer to control my products.

Y5

- I understand how mechanical systems such as cams or pulleys or gears create movement.
- I can use appropriate technical vocabulary

FOOD AND NUTRITION

Y4

- I can explain where some foods come from.
- I can design a menu showcasing traditional food from countries I have studied

Y5

- I know that different food and drink contain different substances - nutrients, water and fibre - that are needed for health.
- I understand that seasons may affect the food available.

MASTERY AND GREATER DEPTH

MASTERY: Obtaining greater levels of understanding and being able to apply learning in different contexts

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perspective
layer
focus
costume
criteria
component
circuit
switch
cam

Y5

survey
assemble
questionnaire
preference
finishing technique
pulleys
gears
project
display
reinforce
seasonality

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SUMMER **Yb. <u>Which pants and habitats can be found in different habitats around the world?</u>** Food topic on celebrating culture and seasonality**.** FOCUS ON FOOD – CELEBRATING SEASONALITY AND CUSTOMS 5 / 6 D&T ASSOCIATION POSTER TO INFORM AND SUPPORT		**WORKING AT GREATER DEPTH:** Learning can be transferred and applied in different contexts. Pupils can explain their understanding to others. **PUPILS CAN DEMONSTRATE:** **Independence –** Apply the skill or knowledge without recall to the teacher **Fluency –** Apply the knowledge and skill with a high level of confidence, showing resilience when the task becomes demanding **Application –** Apply the knowledge and skill to a range of different contexts, including other areas of the curriculum **Consistency –** Consistently use their skills, knowledge and understanding **Synthesise –** Organise ideas to make connections with other areas of learning and new ones **Re-visit –** Return to this aspect of learning after a break and still feel confident that they can work on the skill and knowledge without difficulty **Explain it –** Able to explain to others their understanding and perhaps offer peer learning support to others	

<u>CONCEPTUAL LINKS:</u>
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MATHEMATICAL CONCPETUAL LINKS: The importance of accuracy in measurement. **ARTISTIC CONCEPTUAL LINKS:** The importance of aesthetics during the design process. Links between cultural traditions and design. Design within each art form.
GEOGRAPHICAL CONCEPTUAL LINKS: How the physical and human characteristics link to the design process. Designs to make living in a particular geographical region more comfortable. Locality, habitats, wildlife, customs and traditions as inspiration for design.

Y6

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OUTLINE OF TERMLY LEARNING THEMES – Description of historical content and context	**NC CONTENT: CONTENT, KNOWLEDGE AND SKILLS What pupils will be taught to do, know and understand**	**LEARNING OUTCOMES:**	**KEY VOCABULARY CLASS TEXTS**
AUTUMN **<u>Extreme Earth: What causes natural disasters?</u>** .Linking to Electricity science topic design, evaluate and make products with more complex switches. Disaster warning systems linking to geography topic. FOCUS ON ELECTRICAL SYSTEMS – MORE COMPLEX SWITHES AND CIRCUITES 5 / 6 D&T ASSOCIATION POSTER TO INFORM AND SUPPORT	YEAR 6 **DESIGN** • use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups • generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and	YEAR 6 DESIGN • I can confidently carry out research, using surveys, interviews, questionnaires and web based resources. I can identify the needs, wants, preferences and values of a particular individuals and groups. MAKE	**Y6** target audience purpose focal point annotate prototype manufacture

SPRING **Who were the Ancient Egyptians?** Design, make and evaluate an alarm system to protect priceless artefacts in the British Museum FOCUS ON ELECTRICAL SYSTEMS – MONITORING AND CONTROL S 5 / 6 D&T ASSOCIATION POSTER TO INFORM AND SUPPORT **What was life like in Wombwell in Victorian Times?** **SUMMER** **What is the story behind chocolate?** **Who were the Mayans?** Design, make and evaluate chocolate box designs. **APPLICATION OF COMPUTER AIDED DESIGN** Design, make and evaluate continental style chocolates	exploded diagrams, prototypes, pattern pieces and computer-aided design select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately MAKE • select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately • select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities **EVALUATE** • investigate and analyse a range of existing products • evaluate their ideas and products against their own design criteria and consider the views of others to improve their work **TECHNICAL KNOWLIEDGE** • apply their understanding of how to strengthen, stiffen and reinforce more complex structures • **COOKING AND NUTRITION** • Understand where food comes from and importance of ethically sourced ingredients.	• I can produce appropriate lists of tools, equipment and materials I will use and explain my choices according to functional properties and aesthetic qualities. • I can accurately apply a range of finishing techniques, including those from art and design. I can use techniques that involve a number of steps **EVALUATE** • I can also investigate and analyse how much products cost to make and how innovative products are **TECHNICAL KNOWLEDGE** • I know how to reinforce and strengthen a 3d framework. • I can use appropriate technical vocabulary • I know how to use more technical switches and circuits **FOOD AND NUTRITION** • I know that recipes can be adapted to change the appearance, taste, texture and aroma. • I understand that food is processed into ingredients that can be eaten or used in cooking. **MASTERY AND GREATER DEPTH** **MASTERY:** Obtaining greater levels of understanding and being able to apply learning in different contexts **WORKING AT GREATER DEPTH:** Learning can be transferred and applied in different contexts. Pupils can explain their understanding to others. **PUPILS CAN DEMONSTRATE:** **Independence –** Apply the skill or knowledge without recall to the teacher **Fluency –** Apply the knowledge and skill with a high level of confidence, showing resilience when the task becomes demanding **Application –** Apply the knowledge and skill to a range of different contexts, including other areas of the curriculum **Consistency –** Consistently use their skills, knowledge and understanding **Synthesise –** Organise ideas to make connections with other areas of learning and new ones **Re-visit –** Return to this aspect of learning after a break and still feel confident that they can work on the skill and knowledge without difficulty **Explain it –** Able to explain to others their understanding and perhaps offer peer learning support to others	computer aided design

CONCEPTUAL LINKS:

CONCEPTUAL/CROSS-CURRICULAR LINKS:

. **HISTORICAL CONCEPTUALLINKS:** Importance of design and innovation through history **SCIENTIFIC CONCEPTUAL LINKS:** Application of scientific principles during the design process. Concepts of innovation and invention.
MATHEMATICAL CONCPETUAL LINKS: The importance of accuracy in measurement. **ARTISTIC CONCEPTUAL LINKS:** The importance of aesthetics during the design process. Links between cultural traditions and design. Design within each art form.
GEOGRAPHICAL CONCEPTUAL LINKS: How the physical and human characteristics link to the design process. Designs to make living in a particular geographical region more comfortable. Locality, habitats, wildlife, customs and traditions as inspiration for design.