



## DESIGN TECHNOLOGY PROGRESSION IN SKILLS AND KNOWLEDGE YEAR 5 STATUTORY REQUIREMENTS

AUTUMN	SPRING	SUMMER		
AUTUMN 2: DESIGN AND MAKE A CONTAINER THAT	<b>SPRING 2:</b> FRAME STRUCTURES – BRIDGES AND TOWERS	SPRING 2: Mechanical systems using Gears or pulleys		
WILL HOLD SOMETHING SECURELY. [E.G.MONEY,	DESIGN AND MAKE A STRUCTURE TO REACH A CERTAIN	Create a moving toy/display using gears and or pulleys.		
PHONE] LINK TO ANGLO-SAXON TOPIC.	HEIGHT/SPAN A CERTAIN DISTANCE.	<u>DESIGN:</u> Use research and develop design criteria to		
DESIGN: Use research and develop design criteria to	INVESTIGATE THE WORKS OF GUSTAVE EIFFEL	inform the design of innovative, functional, appealing		
inform the design of innovative, functional, appealing	DESIGN: Use research and develop design criteria to	products that are fit for purpose, aimed at particular		
products that are fit for purpose, aimed at particular	inform the design of innovative, functional, appealing	individuals or groups		
individuals or groups	products that are fit for purpose, aimed at particular	Generate, develop, model and communicate their ideas		
Generate, develop, model and communicate their	individuals or groups	through discussion, annotated sketches, cross-sectional		
ideas through discussion, annotated sketches, cross-	Generate, develop, model and communicate their ideas	and exploded diagrams, prototypes, pattern pieces and		
sectional and exploded diagrams, prototypes, pattern	through discussion, annotated sketches, cross-sectional	computer-aided design		
pieces and computer-aided design	and exploded diagrams, prototypes, pattern pieces and	-Come up with a range of ideas after collecting		
-Come up with a range of ideas after collecting	computer-aided design	information from different sources		
information from different sources	-Come up with a range of ideas after collecting	-Produce a detailed, step-by-step plan		
-Produce a detailed, step-by-step plan	information from different sources	-Explain how a product will appeal to a specific audience		
-Explain how a product will appeal to a specific	-Produce a detailed, step-by-step plan	MAKE: Select from and use a wider range of tools and		
audience	-Explain how a product will appeal to a specific audience	equipment to perform practical tasks [for example,		
MAKE: Select from and use a wider range of tools and	MAKE: Select from and use a wider range of tools and	cutting, shaping, joining and finishing], accurately.		
equipment to perform practical tasks [for example,	equipment to perform practical tasks [for example,	Select from and use a wide range of materials and		
cutting, shaping, joining and finishing], accurately.	cutting, shaping, joining and finishing], accurately.	components, including construction materials, textiles		
Select from and use a wide range of materials and	Select from and use a wide range of materials and	and ingredients, according to their functional properties		
components, including construction materials, textiles	components, including construction materials, textiles	and aesthetic qualities		
and ingredients, according to their functional	and ingredients, according to their functional properties	-Use a range of tools and equipment competently		
properties and aesthetic qualities	and aesthetic qualities	-Make a prototype before making a final version		
-Use a range of tools and equipment competently	-Use a range of tools and equipment competently	<b>EVALUATE</b> : Investigate and analyse a range of existing		
-Make a prototype before making a final version	-Make a prototype before making a final version	products. Evaluate their ideas and products against their		
<b>EVALUATE</b> : Investigate and analyse a range of existing	EVALUATE: Investigate and analyse a range of existing	own design criteria and consider the views of others to		
products. Evaluate their ideas and products against	products. Evaluate their ideas and products against their	improve their work.		
their own design criteria and consider the views of	own design criteria and consider the views of others to	-Suggest alternative plans; outlining the positive features		
others to improve their work	improve their work.	and draw backs		
-Suggest alternative plans; outlining the positive	-Suggest alternative plans; outlining the positive features	-Evaluate appearance and function against original		
features and draw backs	and draw backs	criteria		





## DESIGN TECHNOLOGY PROGRESSION IN SKILLS AND KNOWLEDGE YEAR 5 STATUTORY REQUIREMENTS

-Evaluate appearance and function against original	-Evaluate appearance and function against original	TECHNICAL KNOWLEDGE: apply their understanding of
criteria	criteria	how to strengthen, stiffen and reinforce more complex
	TECHNICAL KNOWLEDGE: apply their understanding of	structures. Understand and use mechanical systems in
	how to strengthen, stiffen and reinforce more complex	their products [for example, gears, pulleys, cams, levers
	structures. Understand and use mechanical systems in	and linkages]. Understand and use electrical systems in
	their products [for example, gears, pulleys, cams, levers	their products [for example, series circuits incorporating
	and linkages]. Understand and use electrical systems in	switches, bulbs, buzzers and motors]. Apply their
	their products [for example, series circuits incorporating	understanding of computing to program, monitor and
	switches, bulbs, buzzers and motors]. Apply their	control their products.
	understanding of computing to program, monitor and	-Use knowledge to improve a made product by
	control their products.	strengthening, stiffening or reinforcing
	-Use knowledge to improve a made product by	
	strengthening, stiffening or reinforcing	

## KNOWLEDGE TO BE LEARNED BY THE END OF EACH UNIT (WHAT DO WE WANT THE CHILDREN TO KNOW AND REMEMBER?)

- Anglo Saxons often used small bags to carry money, combs and other small items
- Some bags/purses were highly decorated
- The qualities required to make a strong, usable purse/bag are material and stitching quality.
- Gustave Eiffel was a French engineer who specialized in metal structures.
- Lived in France 1832 1923
- His early work focused on building bridges.
- He won competitions for his design
- He designed and built the Eiffel Tower
- Some shapes are better at supporting weight than others.

• Gears and pulleys can be used to change the speed or effort of a mechanism

Children working at below Age Related Expectations in DESIGN TECHNOLOGY at the end of Year 5:				