

Year 7 Design & Technology - Graphics & Mechanisms

Learning Programme 4

The LORIC skill focus for his LP is: INITIATIVE. The Moral Virtues focus for this LP are: INTEGRITY and GRATITUDE.		Literacy: <ul style="list-style-type: none"> Capital letters must be used at the start of sentences and for the first letter of proper nouns Full stops must be used at the end of a sentence Question marks must be used at the end of a question Apostrophes should only be used for possession or omission Days of the week and months must be spelled correctly Key words must be spelled correctly
Integrity - Having strong moral principles. Gratitude - Feeling and expressing thanks.		
What will I be learning about in this Learning Programme? Paper and board categories, graphical skills and types of movement in mechanical products. I will learn about levers and linkages and the laminating process.		
Where have I seen this learning before? In KS2 design & technology you will have worked with simple mechanism and made models from paper and card.		
What could I use it for? You can use paper and board materials to manufacture products in design & technology over your next 7 years; you will apply your knowledge of papers and boards in the GCSE Design & Technology exam.		

In LP4.1, I will know:	10/03/25 - (WK 2)	Key Vocabulary	Homework
where the materials categorised as 'papers and boards' come from; what the main stages of the paper making process are.		Source	Explain the stages of the paper making process.

In LP4.2, I will know:	17/03/25 - (WK 1)	Key Vocabulary	Homework
the environmental concerns of making paper.		Deforestation	Explain the environmental impact of using paper.

In LP4.3, I will know:	24/03/25 - (WK 2)	Key Vocabulary	Homework
how to apply graphics skills including tonal shading and surface rendering; how typography styles such as Word Art can represent the meaning of a word.		Rendering	Complete a tonal shading task.
Extended Task.			

In LP4.4, I will know:	31/03/25 - (WK 1)	Key Vocabulary	Homework
where different types of movement occur as a result of a mechanical system.		Oscillating & reciprocating	Create a word art design for a film, game or book.

In LP4.5, I will know:	21/04/25 - (WK 2)	Key Vocabulary	Homework
what the three classes of lever types are and their uses; how to use graphical techniques to present a range of ideas for my door hanger.		Fulcrum	Investigate the four types of motion.

In LP4.6, I will know:	28/04/25 - (WK 1)	Key Vocabulary	Homework
how to apply graphical skills to present a precise door information hanger.		Tonal shading	Identify the three classes of levers.
Extended Task.			

In LP4.7, I will know:	05/05/25 - (WK 2)	Key Vocabulary	Homework
how and why we laminate papers and how this can impact the environment; how to evaluate my door hanger and suggest improvements.		Laminating	Convert units of measurements from cm to mm.

Resources to support learning:
The following websites contain extensive revision material and information to increase design & technology subject knowledge: www.technologystudent.com; www.mr-dt.com; www.bbc.co.uk/bitesize.

FFET Award Challenge for this Learning Programme:
Create a greeting card with a moving part (mechanism) attached.



Year 7 Design & Technology - Timbers & Key Keeper Design

Learning Programme 4

<p>The LORIC skill focus for his LP is: INITIATIVE. The Moral Virtues focus for this LP are: INTEGRITY and GRATITUDE.</p>		<p>Literacy:</p> <ul style="list-style-type: none"> • Capital letters must be used at the start of sentences and for the first letter of proper nouns • Full stops must be used at the end of a sentence • Question marks must be used at the end of a question • Apostrophes should only be used for possession or omission • Days of the week and months must be spelled correctly • Key words must be spelled correctly
<p>Integrity - Having strong moral principles. Gratitude - Feeling and expressing thanks.</p>		
<p>What will I be learning about in this Learning Programme? The source, categories and types of timbers. The environmental impact of using timbers to make products. The equipment used to make different cuts in timbers. Workshop safety. The methods of exploring a context and communicating design ideas.</p> <p>Where have I seen this learning before? In KS2 design & technology you will have completed design and practical tasks using a range of modelling materials.</p> <p>What could I use it for? You can use timber materials to manufacture products in design & technology over your next 7 years; you will apply your knowledge of timbers in the GCSE Design & Technology exam. You can use hand tools to repair and create timber items in your everyday life.</p>		

In LP4.1, I will know:	10/03/25 - (WK 2)	Key Vocabulary	Homework
the source of timbers and how they are processed; how using timber can have impact on the environment; I will show compassion when discussing this.		Timber	Timber Processing.

In LP4.2, I will know:	17/03/25 - (WK 1)	Key Vocabulary	Homework
the differences between hardwood and softwood timbers.		Deciduous	The impact of timber use on the environment.

In LP4.3, I will know:	24/03/25 - (WK 2)	Key Vocabulary	Homework
about different types of timbers and their uses; the differences between natural timber and manufactured boards.		MDF Medium density fibreboard	Timber categories.

In LP4.4, I will know:	31/03/25 - (WK 1)	Key Vocabulary	Homework
how to work safely in a workshop by starting a timbers practical task; how to use different saws for different types of cuts.		Grain	Manufactured boards.

In LP4.5, I will know:	21/04/25 - (WK 2)	Key Vocabulary	Homework
how to use the 5W strategy to explore the key keeper project.		Context	Health & safety in the workshop.

In LP4.6, I will know:	28/04/25 - (WK 1)	Key Vocabulary	Homework
how to evaluate existing key keeper products.		Aesthetics	Product analysis of key holder products.

In LP4.7, I will know:	05/05/25 - (WK 2)	Key Vocabulary	Homework
how to draw in oblique and isometric projection; how to present a range of key keeper design ideas and label the key features of my designs.		Isometric	Isometric drawing.

Resources to support learning:
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FFET Award Challenge for this Learning Programme:
Create a collage to show the difference between hardwoods and softwoods.



Year 7 Design & Technology - Timbers Key Keeper Manufacture Learning Programme 4

<p>The LORIC skill focus for his LP is: INITIATIVE. The Moral Virtues focus for this LP are: INTEGRITY and GRATITUDE.</p>		<p>Literacy:</p> <ul style="list-style-type: none"> • Capital letters must be used at the start of sentences and for the first letter of proper nouns • Full stops must be used at the end of a sentence • Question marks must be used at the end of a question • Apostrophes should only be used for possession or omission • Days of the week and months must be spelled correctly • Key words must be spelled correctly
<p>Integrity - Having strong moral principles. Gratitude - Feeling and expressing thanks.</p>		
<p>What will I be learning about in this Learning Programme? To plan the stages of manufacture for my project using a flow chart. To assess the risk of working with tools and equipment before selecting them to make my timbers key keeper. To know how to use workshop tools correctly and safely.</p> <p>Where have I seen this learning before? You will build on your learning from the last Learning Programme in which you were introduced to working with timbers in the D&T workshop.</p> <p>What could I use it for? You can use timber materials to manufacture products in design & technology over your next 7 years; you will apply your knowledge of timbers in the GCSE Design & Technology exam. You can use hand tools to repair and create timber items your everyday life.</p>		

In LP4.1, I will know:	10/03/25 - (WK 2)	Key Vocabulary	Homework
how to plan the stages of my key keeper manufacture; what flow chart symbols represent in a flow chart.		Flow chart	Complete a flow chart planning task.
In LP4.2, I will know:	17/03/25 - (WK 1)	Key Vocabulary	Homework
the dangers that can exist in the workshop; how to complete a risk assessment so that I can work safely with tools in the workshop.		Risk assessment	Safety in the workshop task.
In LP4.3, I will know:	24/03/25 - (WK 2)	Key Vocabulary	Homework
how to use a try square to accurately mark out for cutting; how to use a tenon saw to cut straight lines.		Try square	Describe the stages of using a tenon saw safely.
Extended Task.			
In LP4.4, I will know:	31/03/25 - (WK 1)	Key Vocabulary	Homework
how to use the coping saw or scroll saw to cut out my keyrings.		Coping saw	Describe the stages of using a coping saw safely.
In LP4.5, I will know:	21/04/25 - (WK 2)	Key Vocabulary	Homework
how to use files, abrasive paper and sanding disk to smooth and finish the edges of timber.		Abrasive paper	Describe the stages of using a scroll saw safely.
In LP4.6, I will know:	28/04/25 - (WK 1)	Key Vocabulary	Homework
how to use the pillar drill to create the hole on my keyring.		Pillar drill	Describe the stages of using a pillar drill safely.
Extended Task.			
In LP4.7, I will know:	05/05/25 - (WK 2)	Key Vocabulary	Homework
why timbers require a surface finishes and be able to identify timber finish types; how to apply a finish to improve the appearance and properties of my key keeper.		Material finishes	Describe a range of timber finishes and their uses.

<p>Resources to support learning: The following websites contain extensive revision material and information to increase design & technology subject knowledge: www.technologystudent.com; www.mr-dt.com; www.bbc.co.uk/bitesize.</p>
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<p>FFET Award Challenge for this Learning Programme: Design a health & safety in the workshop poster to inform new pupils into D&T how to work safely.</p>

