

Year 8 Design & Technology - Systems Night Light Learning Programme 5

The LORIC skill focus for his LP is: COMMUNICATION. The Moral Virtues focus for this LP are: COURAGE and HUMILITY. Courage - Acting with bravery and overcoming fears. Humility - Having a modest view of oneself.			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
What will I be learning about in this Learning Programme? Electronic systems and their input, process and output. The function of electronic components. How to solder safely to produce a functioning Night Light. How to use CAD/CAM to create a lamp shade.			
Where have I seen this learning before? In KS2 design & technology you will have used simple electronic components to make electrical systems in a product.			
What could I use it for? You can use electronic components to manufacture electronic systems in design & technology over your next 6 years; you will apply your knowledge of electronic systems in the GCSE Design & Technology exam.			
In LP5.1, I will know:	12/05/25 - (WK 1)	Key Vocabulary	Homework
which steps to follow to safely solder; how to safely and precisely solder components onto a circuit board.		Soldering	Produce a step-by-step storyboard to explain how to use the soldering iron safely.
In LP5.2, I will know:	19/05/25 - (WK 2)	Key Vocabulary	Homework
how to use CAD 2D Design to present a Night Light shade final design.		CAD (Computer aided design)	Explain the positives and negatives of using CAD.
LP5 RLW, I will:		02/06/25 - (WK 1)	
review my learning, recalling and applying key knowledge, and focus on closing any gaps in my knowledge.			
In LP5.3, I will know:	09/05/25 - (WK 2)	Key Vocabulary	Homework
the advantages and disadvantages of using the CAM laser cutter.		CAM (Computer aided manufacture)	Explain the positives and negatives of using CAM.
Extended Task.			
In LP5.4, I will know:	16/06/25 - (WK 1)	Key Vocabulary	Homework
how to convert my 2D design file to the laser cutter.		Convert	Explain the laser cutting process.
In LP5.5, I will know:	23/06/25 - (WK 2)	Key Vocabulary	Homework
what the main stages of the vacuum forming process are; how to safely use the vacuum former to manufacture the night light base.		Vacuum forming	Describe the stages of the vacuum forming process.
In LP5.6, I will know:	30/06/25 - (WK 1)	Key Vocabulary	Homework
how to finalise the soldering of my circuit; how to test and troubleshoot any problems on my circuit board.		Troubleshooting	Manufacturing Diary.
Extended Task.			
In LP5.7, I will know:	07/06/25 - (WK 2)	Key Vocabulary	Homework
how to assemble, test and evaluate my final manufactured night light.		Improvements	Primary user feedback of the night light in use.
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.			
FEET Award Challenge for this Learning Programme: Create a safe soldering fact sheet for pupils to use a guide when soldering.			

PRT Task 1

PRT Task 2