

Year 8 Candle Holder Homework

Try looking at the following website to get some help with your homework:

www.designandtech.com/resistantmaterials/ or www.technologystudent.com

	Must be completed by all students	Could be completed to show a better understanding
1	Conduct a survey with your family and friends on the different styles of candle holders and find out which they prefer. Present the results using a spreadsheet and graphs.	Research into the history of the use of candles and find out how their design and manufacture has changed. Also try to find out how candle making has affected people's lives through history.
2	Collect some pictures of existing candle holders both from catalogues or the internet, paste onto paper and explain how they have been made.	Measure and draw different types of candles, put them into a table of sizes and work out which candles can be used on a candle holder made out of the materials from school.
3	Using notes and drawings produce a step by step guide on how to successfully braze mild steel, include safety tips	Research into welding mild steel and the difference between gas welding and electric arc welding.
4	Explain with drawings and notes how a flat sheet of aluminium can be shaped into a dish. Name all the pieces of equipment used, include safety tips.	Copper can be beaten into a dish shape and plannished to create an even surface. Investigate what is involved in this process and write up your findings.
5	Explain with drawings and notes how a scrolling jig can be use to make scrolls out of mild steel strip include safety tips. <i>Visit www.metal-craft.co.uk</i>	Explain with drawings and notes how twists and circular rings can be made in mild steel. Name all the equipment used.
6	Write a step by step plan of making for your candle holder. All the steps must include a sketch of the tools or machines used and an explanation of what you did and how long it took. Include any changes you might make.	Write out what you will do if things go wrong whilst making each step of your candle holder. Also write down how you will check your work for quality.
7	Investigate ways in which candles can be held in place on candle holders. Use notes and drawings to show at least three different methods of holding candles in place	Using a computer design and produce a leaflet to be given out by the fire brigade that explains how to use candles safely in the home
8	Design a candle holder to be made using only mild steel. Explain fully how it will be made and how the parts will be joined together.	. Find out what 'malleability' means and why this property is important when using mild steel to make candle holders.
9	Brass is another metal that is often used to make candle holders. Explain what brass is made from and three ways it is different from copper. Draw four things made from brass.	. Investigate three other alloys; bronze, stainless steel and high speed steel. Say what they are made from, what they are used for and two properties for each one
10	Investigate and explain the process of plastic dip coating. Present this work as a flow chart and include diagrams.	Investigate and explain the process of galvanising steel
11	Design an improved and different design to your original candle holder; explain how you have changed it and why.	Design a questionnaire to find out what people think of your finished candle holder.
12	Look back at your original design specification and evaluate your finished candle holder against this.	Explain how you could make a batch of 100 candle holders. Present your work as a flow chart to show how you would organise the making of the candle holders.