

Year 8 Design and Technology Resistant Materials Colour Band Descriptors

“Green” Skills Criteria - Practical	“Green” Skills Criteria - Theory
I can use engineers blue and a scribe to help me mark out my metal work.	I can provide examples of different types of wood
I can use abrasive paper to smooth out any rough areas on my work.	I can list examples of different types of tree
I can use a centre punch to prepare my work for drilling	I know that wood can be grouped into two categories: softwood and hardwood.
I can use the dip coating machine with assistance	I can explain how I made my project by producing a manufacturing diary.
I can apply a finish (e.g. wax, paint or cellulose sealer) to my timber backboard.	I can list a range of tools that I used during this project and explain how to use them safely.
I know what a countersink bit does	I can develop a list of design criteria
I can use the forge to shape a simple steel hook with assistance	I can carry out a product analysis using ACCESS FM as a guide.

“Pink” Skills Criteria - Practical	“Pink” Skills Criteria - Theory
I can mark out my work to given measurements	I can categories some types of wood
I can use different grades of abrasive paper to get a very fine finish on my timber backboard.	I can categories some types of trees
I can drill into my work accurately having used the centre punch to mark out beforehand.	I can explain which trees softwood comes from and which trees hardwood comes from.
I can use the dip coating machine	I can explain how I made my project by producing a manufacturing diary that includes key words and technical vocabulary.
I can apply a consistent finish (e.g. wax, paint or cellulose sealer) to my timber backboard.	I can list a range of tools and machines that I used during this project and explain how to use them safely.
I can use the countersink bit to allow for a flush finish on my screw heads	I can develop a list of justified design criteria using connectives.
I can use the forge to shape a simple steel hook.	I can use my research (e.g. from a product analysis, mood board or materials research) to develop my design criteria

“Yellow” Skills Criteria - Practical	“Yellow” Skills Criteria - Theory
I can cut my work accurately following careful marking out	I can categorise types of wood into softwoods and hardwoods
I can use files and the belt-sander to smooth off appropriate materials.	I can explain the difference between a coniferous and deciduous tree
I can mark out and drill my wall-mounting holes symmetrically	I can explain why we are using a softwood for our project, referring to both aesthetic and environmental factors.
I can use the dip coating machine to apply a consistent protective finish to my steel hook.	I can use diagrams to illustrate my manufacturing diary.
I can achieve a good finish on my timber backboard through the use of abrasive paper and cellulose sealer.	I can give an example of a thermoplastic.
I can use either a coping saw or the Hegner (fretsaw) to cut out MDF or acrylic.	I can use key words to develop a detailed set of design criteria.
I can use the forge to accurately shape a steel hook.	Referring to material properties, I can explain why steel was used in making this project.

"Blue" Skills Criteria - Practical	"Blue" Skills Criteria - Theory
I can use templates or guides to ensure multiples are cut out accurately	I can list the 6 Rs
I can explain the different situations for when abrasive paper, files and belt sanders would be best suited.	I can explain why it is important to use recycled materials where possible
I can mark out and drill my wall-mounting holes symmetrically and counter sink them evenly	I can explain why we might use painted MDF in our project, referring to both aesthetic and environmental factors.
I can use the dip coating machine with no assistance to apply a consistent protective finish to my steel hook.	In my manufacturing diary, I can use connectives to explain why I have done each step.
I can use epoxy resin to glue small, non-porous materials together.	I can give an example of a thermosetting plastic.
I can use either a coping saw or the Hegner (fretsaw) to cut out MDF or acrylic accurately.	I can create a list of design criteria that has a hierarchy of importance.
I can use the forge to accurately shape a steel hook with very little assistance.	Referring to material properties, I can explain why acrylic was used in making this project.

"Salmon" Skills Criteria - Practical	"Salmon" Skills Criteria - Theory
I can create my own templates/jigs/guides for cutting out multiples	I can list the 6 R's and explain their differences
I can explain the different situations for when abrasive paper, files, needle files, orbital sanders & belt sanders would be best suited.	I can explain why it is important to reuse parts of products and extend their life cycle.
I can mark out and drill holes for my screws and hooks symmetrically. I also counter sink them evenly.	I can explain why MDF is easier to shape than natural timber (isotropic vs orthotropic)
I can use the dip coating machine and convection oven to apply a consistent protective finish to my steel hook.	In my manufacturing diary, I can use explain how parts of my project might have been produced in industry.
I can develop my work using 2D Design and the laser cutter to develop my work.	I can shape thermoplastics using heat (line bender)
I can use either a coping saw or the Hegner (fretsaw) to cut out natural timber accurately.	I can create a list of justified design criteria that has a hierarchy of importance.
I can use the forge to very accurately shape a steel hook independently.	Referring to material properties, I can explain why epoxy resin was used in this project.