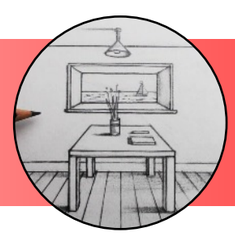
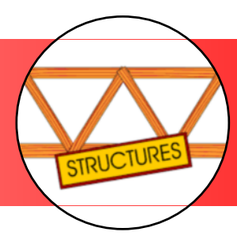
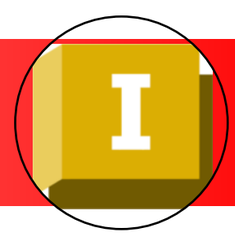
S1 course overview

DESIGN & Technology




S1 Course Overview

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☆- KEY LEARNING TASK

All outcomes will be assessed against a:

gold, silver, bronze standard using a department matrix

DESIGN & Technology

-Discussion around expectations of health and safety within the workshop

-Signed contract of H&S expectation by pupils and parents

Workshop - Health and safety overview

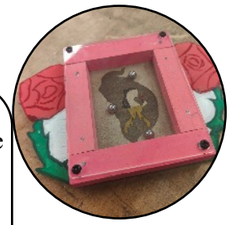
Expected Outcomes:

-Pupils will have a thorough understanding of health and safety regulations.

-Pupils will be able to identify and mitigate hazards in the workshop.

-Pupils will demonstrate safe working practices.

-A culture of safety and responsibility will be promoted within the workshop environment.



–Construct a Ball bearing game practical model

Develop associated theory knowledge of tools and processes

-Associated homework's

-End of unit theory test

Wood Project

-Premade template can be used

-Base to be painted

-Frame to be oil finished

Expected Outcomes:

-Pupils will develop proficient hand skills through precise cutting, shaping, and assembling of wooden components.

-Pupils will gain experience and confidence in using various machinery and tools safely and effectively.

-Pupils will enhance their understanding of wood properties, including grain direction, strength, and finishing techniques.

-Pupils will complete a functional wooden ball bearing game, demonstrating their acquired skills and knowledge.

–Construct a Coat Hook practical model - Jig by SB

Develop associated theory knowledge of tools and processes

-Associated homework's

-End of unit theory test

Metal Project

-Wood to be oiled

-Metal to be polished - not dip coated

Expected Outcomes:

-Pupils will develop proficient hand skills through the precise cutting, shaping, and assembling of metal components.

-Pupils will gain experience and confidence in using various machinery and tools safely and effectively.

-Pupils will enhance their understanding of metal properties, including strength, malleability, and finishing techniques.

-Pupils will learn laser engraving techniques to create detailed designs on wooden backings.

-Pupils will complete a functional metal coat hook with a wooden laser engraved back, demonstrating their acquired skills and knowledge..

19 periods per workshop/design suite

-Develop skills in the use of Autodesk Inventor

☆ - Create a gym bottle

-Create a ball bearing game

CAD Tasks

Expected Outcomes:

Autodesk Inventor Skills: Pupils will gain proficiency in 3D modeling and design using Autodesk Inventor.

Gym Bottle Creation: Pupils will develop design and manufacturing skills, understanding product design principles.

Ball Bearing Game Creation: Pupils will enhance creativity and practical skills through designing and constructing a ball bearing game.

-Pupils will design and laser cut a timetable - CUT BY SB

☆-Develop Serif skills using the gym fit logo task

☆-Create a label for a gym bottle

-Design a poster to advertise their ball bearing game -PLENARY

DTP Tasks

Expected Outcomes:

Laser Cut Timetable: Pupils will develop precision in digital design and gain hands-on laser cutting experience.

Gym Fit Logo Task: Pupils will enhance graphic design skills using Serif software and create professional-quality logos.

Gym Bottle Label: Pupils will improve creativity and design skills, learning about branding and visual communication.

Poster for Ball Bearing Game: Pupils will design visually appealing posters, understanding marketing and promotional techniques.

☆- Orthographic sketching on show me boards

-Graphics challenge

☆- 1 point perspective sketching in sketch book

Drawing Tasks

Expected Outcomes:

-Orthographic Sketching: Pupils will accurately create orthographic projections and improve their visualization skills.

-Graphics Challenge: Pupils will enhance creativity, problem-solving, precision, and attention to detail.

-1 Point Perspective Sketching: Pupils will master one-point perspective, improving spatial awareness and depth representation.

-Portion Sketch and Tonal Scale: Pupils will develop accurate proportion sketching and understand tonal values for depth and contrast.

-Complete structures booklet on:

- Natural structures

-Man made structures

-Types of Forces

Structures Tasks

Expected Outcomes:

-Natural Structures: Pupils will understand and accurately represent various natural structures, enhancing their observational and drawing skills.

-Man-Made Structures: Pupils will develop the ability to sketch different man-made structures, improving their technical drawing abilities.

-Types of Forces: Pupils will gain knowledge of different types of forces and how they affect structures, demonstrating this understanding through detailed drawings.

-Develop awareness of FEEDSCAMP

-Use knowledge to analyse a product

Product Design Tasks

Expected Outcomes:

FEEDSCAMP Awareness: Pupils will understand and apply FEEDSCAMP principles to evaluate and improve designs.

Product Analysis: Pupils will develop critical thinking skills to analyze products based on FEEDSCAMP criteria.

S1 Assessment standard

1 2 3

All outcomes will be assessed against a:

gold, silver, bronze standard using a department matrix

DESIGN & Technology

Marking Ruberic Models

Woodwork project s1 Ball Bearing Game

	Marking Ruberic			
	gold (3)	silver(2)	bronze(1)	Criteria
Measuring and marking out	Most of the evidence in M&M has been completed accurately	There is some evidence the model has been completed accurately	There is limited evidence has been compelted accurately	1. Frame measured & marked out 2. Location of frame marked on base
Cutting, Shaping & Assembly	Most of the evidence in cutting and shaping has been completed accurately	There is some evidence in cutting and shaping has been completed accurately	There is limited evidence has been compelted accurately	1. Frame cut & sanded (butt joint) 2. Frame attached in correct position 3. Acrylic screwed into position 4. Handles neatly cut to own design
Finish	Model has prepared and finished to a high standard	Model has prepared and finished to a moderate standard	Model has prepared and finished to a basic standard	1. Pencil marks removed & sanded smooth 2. Paint neatly applied
Independence	pupil worked mostly independantly	pupil worked independantly some of the time	pupil worked independantly none of the time	
Creativity	pupil has embraced creativity to enahnce their model	pupil has engaged in some creativity to enhance their model	pupil has not engaged in creativity to enhance their model	1. Laser cut image 2. Create design for handles

Metalwork project s1 Coat hook

	Marking Ruberic			
	gold (3)	silver(2)	bronze(1)	Criteria
measuring and marking ou	Most of the evidence in M&M has been completed accuretely	There is some evidence the model has been completed accuretely	There is limited evidence has been compelted accuretely	Hooks marked out accurately for bend and holes
Cutting, Shaping & Assemb	Most of the evidence in cutting and shaping has been completed accuretely	There is some evidence in cutting and shaping has been completed accuretely	There is limited evidence has been compelted accuretely	rounding edges of metal model screwed together accuretly
Finish	Model has prepared and finished to a high standard	Model has prepared and finished to a moderate standard	Model has prepared and finished to a basic standard	Sharp edges removed deburred. and finished, wood sanded and blemishes removed
Independence	pupil worked mostly independantly	pupil worked independantly some of the time	pupil worked independantly none of the time	
Creativity	pupil has embraced creativity to enahnce their model	pupil has engaged in some creativity to enhance their model	pupil has not engaged in creativity to enhance their model	Backboard designed and finished to good standard.

S½ Workshop tasks

	s1 ball bearing game	coat hook	Trowel	Phone Holder
p1	cutting and shaping MDF base	ball bearing run over	Measure and mark trowel handle	Trowel - run over - Assembly
p2	cutting and shaping MDF base	ball bearing run over	file corners and drill handle	Trowel - run over -Dipcoat metal
p3	cutting sanding marking wooden strip	ball bearing run over	file corners and drill handle	Measure and mark wood
p4	cutting sanding marking wooden strip	measuring and marking metal	Bend handle	Cutting through housing joint
p5	pilot drill strip	filing and shaping metal	Bend handle	Cutting through housing joint & shaping
p6	painting mdf base	filing and shaping metal	Measure and mark blade	drilling holes and laser cut
p7	painting mdf base	drilling metal	file corners and drill blade	drilling holes and laser cut
p8	assembly	laser base/chamfer wood	bend blade	Glue and assembly
p9	assembly	oil/assembly	Assembly	Glue and assembly

Design & Manufacture

outcomes - 1. Application of Skills 2. Creativity & Presentation
3. Knowledge & Understanding (based on class test grades)

1. Application of Skills
Grade:-

G- produces accurate, well finished craft work largely independently— GOLD
S - with some help, can produce an acceptable standard of craftwork which at times may be roughly finished. – SILVER
B - is able to produce very basic craft work only with direct teacher assistance. - BRONZE

2. Creativity & Presentation
G- mostly working independently, produces sound solutions to design problems and shows competence in the use of graphic illustration techniques— GOLD
S - with some assistance produces simple solutions to design problems and can use graphic techniques to effectively present their work— SILVER
B - produces basic work with teacher assistance which is generally untidy and poorly presented. Work is often unfinished— BRONZE

Graphic Communication

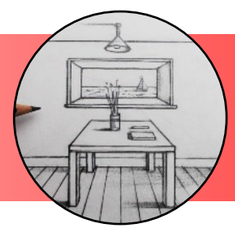
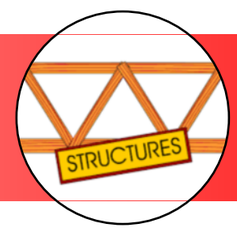
Outcomes - 1. Application of Skills 2. Computer-Aided Drawing / Desk-Top Publishing
3. Knowledge & Understanding (based on class test grades)

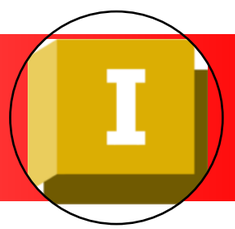
1. Application of Skills
Grade:-

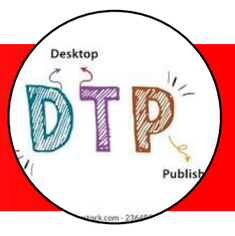
G - normally works independently and produces a good standard of work. can solve more complex graphics problems— GOLD
S - can solve simple graphics problems with some teacher assistance and has a basic understanding of graphics concepts— SILVER
B - has a very basic grasp of graph. comm. skills and can solve simple graphics problems with frequent teacher Assistance. Has difficulty with many aspects of graphic communication coursework— BRONZE

C.A.D./D.T.P.

G - has a good understanding of computers and can effectively use CAD/DTP software to solve a range of graphics problems— GOLD
S - has a basic grasp of computer and cad skills and can use CAD/DTP software with some assistance— SILVER
B - is able to operate computer and use software only with frequent/direct teacher supervision— BRONZE





S1/2 Key Terminology

1 2 3

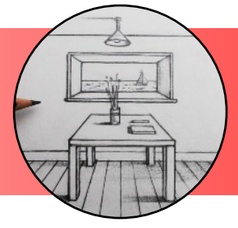
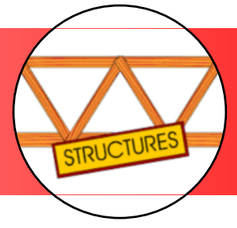
All outcomes will be assessed against a:

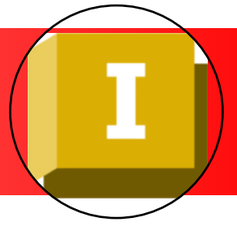
gold, silver, bronze standard using a department matrix

DESIGN & Technology

Graphic Communication

Key Terminology	Definition	D&T Area	year grouo
advertisement	information about a product or service used to attract potential consumers; advertising takes place in newspapers and magazines, on hoardings, on radio and television and on the Internet	Graphic Communication	S1/S2
Alignment	One of the principles of design, alignment refers to lining up the top, bottom, sides, or middle of text or graphic elements on a page	Graphic Communication	S1/S2
assembly	the way parts of a product are fitted together	Graphic Communication	S1/S2
Assembly drawing	: drawing that shows how all the different parts of a product fit together, with each part identified by a number	Graphic Communication	S1/S2
Axis	the centre of rotation	Graphic Communication	S1/S2
Bleed	Extension of graphic or block of colour beyond the trimmed edge of a page	Graphic Communication	S1/S2
Bold type introducing an article or story	One colour gradually becoming lighter or darker.	Graphic Communication	S1/S2
BSI- British Standards Institute	British Standards Institute has responsibility of devising standards that particular products must meet, for a variety of reasons. For example toys must be tested to BS EN 71, for safety reasons	Graphic Communication	S1/S2
CAD	computer aided design; the designer uses the computer to help with the production of the design 'on screen' instead of developing the design by drawing on paper or making 3D models	Graphic Communication	S1/S2
Colour Fill	Solid colour fill applied to a shape or area	Graphic Communication	S1/S2
Colour Gradient	A colour gradually blending into another colour.	Graphic Communication	S1/S2
Colour Picking	Colour Picking is the process of using the colour picker tool on illustration so ware to select an specific colour sample from an image or graphic.	Graphic Communication	S1/S2
Copy / Paste	Copy and paste is the process of piecing together something from multiple sources.	Graphic Communication	S1/S2
Dimension	a add measurements to drawings	Graphic Communication	S1/S2
Drawn Visual	This is a manually drawn item which is full size and to scale give the client a good idea of what the end product would look like. Gives the client an opportunity to visualise the end product and make any changes to the page	Graphic Communication	S1/S2
Drop Shadow	A shadow created behind an object or text to create depth and emphasis	Graphic Communication	S1/S2
End Elevation	A side on view of a product	Graphic Communication	S1/S2
Extended Text	A wider, expanded version of a typeface	Graphic Communication	S1/S2
Flow Text Along a Path	Text that follows in the same direction as a line, curve or shape	Graphic Communication	S1/S2
font	a particular style or design of lettering	Graphic Communication	S1/S2
Freehand sketching	method of presenting design ideas on paper without the use of drawing aids or formal drawing conventions.	Graphic Communication	S1/S2
Graphic	Original Illustration produced for use in a publication. Such as photo- graphs, logos etc	Graphic Communication	S1/S2
Graphics	Use of pictures and words to communicate ideas and information. An Introduction to Design and Technology Vocabulary Developing, planning and communicating ideas.	Graphic Communication	S1/S2
Grid	Transparent lines and patterns which appear on the screen as construction aids but do not form part of a document.	Graphic Communication	S1/S2
Guides	Similar to grids but these are o en used to help frame and align elements in layouts. This helps make it easier for create layouts and structure	Graphic Communication	S1/S2
Gutter	Space between columns on a page	Graphic Communication	S1/S2
Header & Footer	Text placed in the header / footer space that is repeated throughout a document.	Graphic Communication	S1/S2
Heading/Headline	Large text displayed at the top of a page to introduce an article	Graphic Communication	S1/S2
Layers	This allows designers to 'build up' a document with an image on 1 layer and text contained on another, allowing greater control of structure.	Graphic Communication	S1/S2
Margin	Space at either side and top and bo om of a page that is not printed on	Graphic Communication	S1/S2
Orthographic projection	method of showing a 3D object in 2D, using front, pan and side views	Graphic Communication	S1/S2
Outline	A typeface which uses an outline effec	Graphic Communication	S1/S2
perspective drawing	a drawing that shows depth as well as length and height	Graphic Communication	S1/S2
Pictorial drawings	– a realistic, 3d drawing of the project	Graphic Communication	S1/S2
Plan	A top down view of a product	Graphic Communication	S1/S2
Sans Serif Font	Typeface which has no serifs such as, Arial, Tahoma or Verdana. Sans Serif fonts are more readable on computer screens.	Graphic Communication	S1/S2
Serif Font	Small terminal stroke at the end of letters, such fonts like Times, Garamond or Palatino.	Graphic Communication	S1/S2
Snap	A CAG command that locks or 'Snaps' the cursor to the nearest 'snapable' point. This might be points on a screen-displayed grid, or any point naturally arising as a 'lockable' point (a line-end or vertex).	Graphic Communication	S1/S2
Sub Heading	Minor heading above an article or item in the body text	Graphic Communication	S1/S2
Text Wrap	Allows text to be placed on a page around a piece of artwork such as a graphic or table	Graphic Communication	S1/S2
Title / Strap Line	Bold type introducing an article or story	Graphic Communication	S1/S2
Transparency	: the amount of light transmitted through a material.	Graphic Communication	S1/S2
transparent	a transparent material is one that you can see through	Graphic Communication	S1/S2
Underline	A line under text to add emphasis.	Graphic Communication	S1/S2
White Space	White Space Empty areas on a page. Graphic Designers use white space to balance layout, complement graphics, create emphasis—does not have be the colour 'white'	Graphic Communication	S1/S2



S1/2 Key Terminologyy

1 2 3

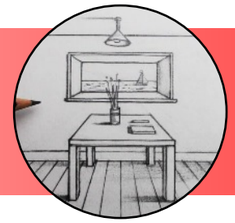
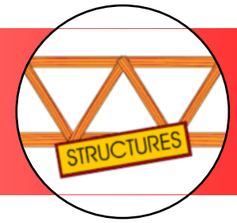
All outcomes will be assessed against a:

gold, silver, bronze standard using a department matrix

DESIGN & Technology

Design

Key Terminology	Definition	D&T Area	year grouo
aesthetics	A branch of philosophy dealing with the nature of art, beauty and taste. It is more scientifically defined as the study of sensory-emotional values, sometimes called judgements of sentiment and taste. Aesthetic judgement is concerned with the visual impact or appeal of a product or environment and is influenced by social, emotional and demographic factors.	Design & Manufacture	S1/S2
Aesthetics	Aesthetics is how the product looks. Consider all the different aspects of a single product that will contribute to the final style of the design. Consider: form,proportion,colour,texture,materials,shape	Design & Manufacture	S1/S2
annotations	brief notes added to design sketches to make things clearer or to give more detail	Design & Manufacture	S1/S2
Anthropometric data	data about the sizes of measurement of people, what they can reach and hold etc.	Design & Manufacture	S1/S2
Anthropometrics	Anthropometrics is the practice of taking measurements of the human body and provides categorised data that can be used by designers.	Design & Manufacture	S1/S2
appearance	the way something looks to an observer	Design & Manufacture	S1/S2
biomimicry	An inspiration of functions found in nature for use and adaptation in the design of a product, service or environment or to solve human problems. For example, velcro fastening was inspired by small hooks on the end of burr needles. Termite mounds that maintain a constant temperature through air vents inspired architects to design cooling for buildings.	Design & Manufacture	S1/S2
brainstorming	a way for a group of people to think of lots of ideas quickly	Design & Manufacture	S1/S2
carbon footprint	The environmental impact of an individual or organisation's operation, measured in units of carbon dioxide. It includes primary emissions (the sum of the direct carbon dioxide emissions of fossil fuel burning and transportation such as cars and planes) and secondary, or indirect, emissions associated with the manufacture and breakdown of all products, services and food an individual or organisation consumes.	Design & Manufacture	S1/S2
Conceptual stages	Use of models, sketches and computer aided design (CAD) to show the design of a product as it develops.	Design & Manufacture	S1/S2
Cost	How much a product cost to sell in a shop but also how much it would cost to make	Design & Manufacture	S1/S2
craft knife	a sharp single bladed knife used to cut paper, stiff card and sheet plastic; should only be used by older pupils under close supervision	Design & Manufacture	S1/S2
criteria for success	the principles or standards by which a design is judged	Design & Manufacture	S1/S2
decoration	the application of colour, texture and pattern to a surface to improve its appearance	Design & Manufacture	S1/S2
design brief	a summary of the aims of a design and the kind of product that is needed. A closed brief says what the product will be. An open brief leaves it for the designer to decide	Design & Manufacture	S1/S2
design criteria/specification	a list describing the standards that a design must meet if it is to be successful	Design & Manufacture	S1/S2
design decisions	a product is the result of the design decisions made by the designer about things such as Why (is it needed?); Who (is the outcome meant for?, is to be involved in its production?); What (should the outcome do?, should it be made from?, shape/colour should it be?	Design & Manufacture	S1/S2
Design process	Process of designing from identifying a need, generating a design, planning and making it and evaluating its performance.	Design & Manufacture	S1/S2
design proposal	a response to a design brief, a description of the product to be made in sufficient detail that the designer and/or the client can decide whether it is worth developing the proposal further	Design & Manufacture	S1/S2
designer	any person who designs things	Design & Manufacture	S1/S2
Durability	: resistance to wear, long lasting.	Design & Manufacture	S1/S2
Elevation –	a front on view of a product	Design & Manufacture	S1/S2
End user	the person who will purchase or use the finished product.	Design & Manufacture	S1/S2
environment	the surroundings, e.g. a room, a town, a park, a forest	Design & Manufacture	S1/S2
environmental concern	worries about these effect of industrial and commercial activity on the natural world and on the people, animals and plants that live in the world	Design & Manufacture	S1/S2
evaluate	assess how well a product or service meets the design criteria or specification	Design & Manufacture	S1/S2
Evaluation	Assessment of how an artefact functions.	Design & Manufacture	S1/S2
Final design	Chosen solution from a selection of design ideas	Design & Manufacture	S1/S2
Function	Easily described as what is the products job? Within design the major influence is the function and this can be a single aspect or many different aspects. the influence of function on the design of products – what is the product's mainpurpose the primary and secondary functions of the design – does it do one thing or several?	Design & Manufacture	S1/S2
Functionality	How well a product carries out its purpose.	Design & Manufacture	S1/S2
Initial Designs	Your first design sketches that show a range of possible ideas. (These are usually accompanied by comments that are you on-going evaluation)	Design & Manufacture	S1/S2
Laser cutting	the use of a high-powered laser beam to cut shapes in materials	Design & Manufacture	S1/S2
Laser engraving	using a laser to etch the surface of a polymer.	Design & Manufacture	S1/S2
manufacturing	this is the word used to describe the way that products are made in the world outside school. It usually implies making in quantity. For example confectionery such as Kitkats are manufactured at a rate of many thousands per hour.	Design & Manufacture	S1/S2
Modelling	making small scale replicas or using a computer program to test ideas	Design & Manufacture	S1/S2
modelling design ideas	the process of representing ideas from `inside the head' in a form that can be shared with oneself and others. The form of the model is 3D e.g. a construction from paper, card, straws, pipe cleaners.foam	Design & Manufacture	S1/S2
mood board	a collection of colours and shapes of paper, card and fabric that evoke an emotional response. Designers and pupils can use image boards to decide on the right colours and convince others of their choice	Design & Manufacture	S1/S2
Product	Item or artefact developed for an intended audience to solve a problem or meet a need.	Design & Manufacture	S1/S2
product analysis	A way of investigating and describing products in order to develop new designs	Design & Manufacture	S1/S2
Prototype	An early model or sample of a product used to test a concept.	Design & Manufacture	S1/S2
questionnaire	a device consisting of a series of questions designed to elicit the views and opinions of those answering the questions. Some questionnaires are administered by a person who asks the questions and record the answers but many are filled in unaided by those answering the questions using mainly tick boxes. Pupils can design their own questionnaires, and if the number of responses is very large, they should be processed by computer. There are several suitable programs designed for school use.	Design & Manufacture	S1/S2
Recycle	Recycling involves processing used materials into new products in order to prevent waste.	Design & Manufacture	S1/S2
survey	a broad investigation into a situation or environment. It can involve definite measurements as in a survey of the school grounds or elicit opinions in a survey to find out who thinks solar power is a good thing. Surveys of opinion rely on information from questionnaires.	Design & Manufacture	S1/S2
Sustainability	the manufacture of goods without compromising future needs; the materials required for a product can be replenished and will not run out	Design & Manufacture	S1/S2
Sustainable Design	Designing a product using the philosophy of RETHINK, REFUSE, REDUCE, REUSE, REPAIR, RECYCLE in order to reduce the use of energy and environmental impact of products. (each is defined in this glossary)	Design & Manufacture	S1/S2
testing	investigating a product or material to find out how it performs in use	Design & Manufacture	S1/S2
translucent	translucent material is one that transmits light but you cannot see through it	Design & Manufacture	S1/S2

S1/2 Key Terminology

1 2 3

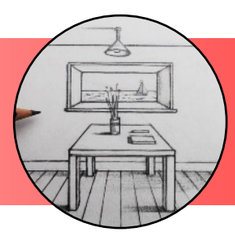
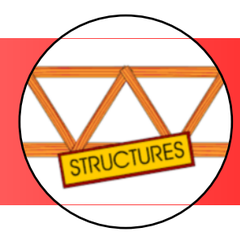
All outcomes will be assessed against a:

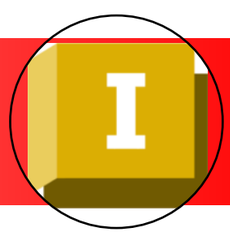
gold, silver, bronze standard using a department matrix

DESIGN & Technology

Manufacture

Key Terminology	Definition	D&T Area	year grouo
abrasive	a material which smoothes and removes marks from wood, plastics and metal; see glass paper and sand paper	Workshop	S1/S2
adhesive	a substance used to stick materials together; examples include pva glue, cow gum, low temperature hot melt glue	Workshop	S1/S2
Alloy	a metal mixed with another metal or element (such as carbon) to improve its properties in some way.	Workshop	S1/S2
bench hook/sawing board	a device to make it easy for pupils to saw strips of wood to length	Workshop	S1/S2
Bowing	Becoming bent along the length of the piece of wood.	Workshop	S1/S2
bradawl	a sharp tool for making small holes either through thin materials or into soft block materials; should be used under supervision	Workshop	S1/S2
characteristics of a material	the physical properties of a particular material; e.g. its hardness, strength and stiffness	Workshop	S1/S2
Clamping	Forcing two materials together using a G-clamp or vice	Workshop	S1/S2
Coniferous	tree which has cones; usually an evergreen	Workshop	S1/S2
consumable materials	materials used to make products e.g. paper, card, wooden strip, plastic sheet, metal rod. These materials get used up and have to be replaced if pupils are to continue designing and making.	Workshop	S1/S2
Deciduous	tree which loses its leaves in winter; broad leafed	Workshop	S1/S2
Dip coating	coating metal with a polymer using heat.	Workshop	S1/S2
drill	a tool used for making small round holes in wood, plastic and metal	Workshop	S1/S2
drill bit	the cutting tool used in a drill. It is held in the chuck and cuts into the material as it rotates	Workshop	S1/S2
Ferrous metals	metals that contain iron.	Workshop	S1/S2
file	a tool for removing burs from freshly sawn metal	Workshop	S1/S2
g-clamp	a device you can use to clamp bench hooks to tables for added stability and/or to hold work steady or to keep parts assembled while glue dries	Workshop	S1/S2
Gloss	a very shiny finish	Workshop	S1/S2
glue gun	a device for applying hot melt glue to parts to be joined together. A low temperature version is available for use in primary schools and should only be used by older pupils under close supervision	Workshop	S1/S2
Hacksaw	Small saw with removable blades for cutting small sections of wood, metal or plastic. Its teeth face forwards so it cuts on the push stroke (safety warning	Workshop	S1/S2
Hardwood	timber that comes from deciduous trees	Workshop	S1/S2
health and safety	the activities carried out in your classroom must meet health and safety requirements. You can ensure that this is the case by carrying out risk assessments and organising the activities so that all risks are controlled.	Workshop	S1/S2
hole punch	a device for making small circular holes in paper and thin card. Some produce two holes so that paper or card can then be kept in ring binders. Others produce a single hole. See also paper drill	Workshop	S1/S2
hygiene	the principles of maintaining health through cleanliness	Workshop	S1/S2
joint	a means of connecting two pieces of material, Some joints are permanent e.g. joints that are held together with an adhesive. Other joints are temporary e.g. joints held together by nuts and bolts	Workshop	S1/S2
Knot	– a round dark part of timber, where a branch starts in the tree	Workshop	S1/S2
Manufactured boards/timber	: human-made boards made from recycled timber.	Workshop	S1/S2
materials	the matter from which things are made e.g. wood, metal, plastic, fabric, food	Workshop	S1/S2
Matt	a dull finish with no shine	Workshop	S1/S2
MDF	medium density fibre board, a man made board	Workshop	S1/S2
Natural timber	: timber that comes from trees.	Workshop	S1/S2
Non-ferrous metal	metals that do not contain iron	Workshop	S1/S2
permanent joining	a joining process in which the joining is permanent and not easily reversed e.g. glueing, welding etc	Workshop	S1/S2
Pilot hole	– a small hole used to stop materials splitting when using nails or screws	Workshop	S1/S2
Plastic memory	when reheated thermoplastics try to return to their previous shape	Workshop	S1/S2
Polishing	rubbing the surface of a material to achieve a shiny finish.	Workshop	S1/S2
Powder coating	coating metal with a polymer by electrostatic spraying then heating.	Workshop	S1/S2
risk assessment	the process by which you consider the seriousness of any risks in a learning activity and then devise ways to reduce the hazard e.g. clear instruction and close supervision	Workshop	S1/S2
sand paper	the common (but strictly incorrect) term for an abrasive paper used to smooth the rough edges of freshly sawn wood	Workshop	S1/S2
sanding block	a piece of cork or wood or plastic wrapped round with sandpaper. It is often easier for young children to work with a sanding block than with a piece of sandpaper when they are smoothing a flat surface	Workshop	S1/S2
Satin:	a finish with some shine	Workshop	S1/S2
sheet material	material in a form where the length and width are much greater than the thickness e.g. paper, card, fabric, corrugated plastic	Workshop	S1/S2
Softwood	timber that comes from coniferous trees.	Workshop	S1/S2
Stiffness:	resistance to bending and flexing.	Workshop	S1/S2
template	a template is a device that allows a shape to be drawn accurately and repeatedly onto a sheet of materials e.g. paper, card, fabric. It can be a thin sheet of plastic in the shape of the shape to be transferred, in which case a pencil is held against the outside edge and follows the edge around the shape thus drawing the shape on the sheet of material beneath. Or it can be a thin sheet of plastic in which there is a hole in the shape of the shape to be transferred. In this case the pencil is held against the inside edge and follows the edge around the shape thus drawing the shape on the sheet of material beneath. Children find it easier to use the ‘hole’ template.	Workshop	S1/S2
Tolerance	The minimum and maximum measurements that can be accepted when manufacturing.	Workshop	S1/S2
Vice	Holding device for components or materials so they may be worked on	Workshop	S1/S2



S1 Code of Conduct

1 2 3

All outcomes will be assessed against a:

gold, silver, bronze standard using a department matrix

DESIGN & Technology

The Robert Burns Academy Design and Technology Department

Name _____ Teacher _____ Date ___/___/___

In order to gain access to the D&T departments workshops machinery, a period of health and safety must be carried out and an agreement contract must be signed. Just because you have chosen to take a practical subject does not allow you to breach the contract you are about to sign.

The workshop rules are as follows:

- Students must remove any object of clothing with a hood, it does not matter if it is black. Hoods can get caught on machinery and cause an accident.
- Students must remove headphones, again this is a hazard and can be caught in machinery and causes distractions in a dangerous environment.
- Students reserve the right to remove their ties when using workshop *machinery* if it makes them feel more comfortable, this is to prevent the tie being caught in machinery. *(Note, if tie is removed, it must be put back on before student leaves room)*
- Students must wear an apron at all times, this is to protect their clothes from general dirt and chemicals and possible damage. It is also to prevent them from transferring dust and harmful chemicals out with the workshop.
- Students must use all relevant PPE (safety glasses, gloves etc) when using equipment.

Students must not use tools for any other purpose than that they are intended for without clear permission from their teacher.

- Students must be aware that inappropriate behaviour will result in being removed from the workshop. This is to ensure the safety of all in the class.
- Students must be aware that there is writing and sketching involved in this subject and as such must agree to one period of theory per week (day and period to be decided.

Students must not deliberately damage other students' work or any of the tools, machinery or workshop tables or surfaces.

- Students must be aware that tools will be checked on a period by period basis, any missing tools will result in students being kept behind to ensure that dangerous items are not removed from the class.

 # - Instant removal from workshop.

Repeated failure to adhere to any of these rules or statements stated will result in the removal of the workshop to textbook based learning.

Parent/Guardian _____ Signature _____

RIGHTS RESPECTING SCHOOL UNICEF

Ready

Respectful

Safe

· Ready to learn · Respectful to others · Safe in all that we do