

Subject:	Graphic design	Year	9	Ability	All
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Term / Date(s)	HT 1	HT 2	HT3
Topic	The importance of the design Process, sustainability and ACCESSFM.	Understanding the importance of using floor plan and perspective drawing.	Practical. Model making and using scale when designing.
Topic overview	To understand what makes successful branding by looking at existing brands.	Understand what a floor plan, who uses them and how we will use them to help design our space..	Understanding how a design is taken from a sketch and is then professionally drawn using CAD.
Pupils will learn...	How to sketch 2D and 3D in order to convey an idea or concept. How to gather simple research to improve the products we use. Students will need to research existing living spaces and materials Understanding how sustainability is used in design.	The students will need to understand how to use two-point and one-point perspective to create liveable spaces. The students will need to develop skills of model making by using a variety of materials such as paper, card, cardboard and plastic. How to conduct themselves safely in a workshop.	Understanding why professional CAD designers use CAD as well as traditional sketching techniques. To understand how scale is used when designing a liveable space To understand how to use a variety of workshop machines such as laser cutters, 3D printers and vinyl cutters to help create their designs. How to successfully analyse their work and use WWW and EBI for future improvements.
Components	Students will analyse and interpret a design brief. Students will learn how to identify the purpose of a project, understand the needs of a target user, and recognise the constraints that influence a design, such as available space, budget, function, and safety. Students will investigate the features and uses of shipping containers. Students will research the history, dimensions, construction and purpose of shipping containers, exploring how they can be adapted into functional living and working spaces. Students will evaluate existing shipping container conversions. Students will examine successful examples of container architecture, considering layout, materials, colour schemes, storage solutions, lighting and functionality. Students will explore how sustainability influences modern design. Students will investigate sustainable design principles, including reusing existing structures, selecting environmentally friendly materials, improving energy efficiency and reducing waste. Students will generate ideas using creative thinking techniques. Students will use mind maps, brainstorming and other idea-generation methods to explore a wide range of possibilities before beginning detailed designs. Students will investigate suitable materials for interior design. Students will research a variety of materials commonly used within interior spaces, considering their properties, appearance, durability, cost and environmental impact. Students will explore how colours and materials influence the appearance and function of a design. Students will investigate colour psychology, material combinations and surface finishes	Students will learn how to produce accurate floor plans to communicate spatial layouts. Students will develop an understanding of how floor plans are used within architecture and interior design to represent spaces from a bird's-eye view. Students will explore how to maximise space within a compact environment. Students will investigate strategies for designing efficient layouts within limited spaces. They will consider zoning, storage solutions, multifunctional furniture and movement throughout the space Students will develop the skills to draw interior spaces using one-point perspective. Students will learn the principles of one-point perspective, including horizon lines, vanishing points and construction lines. Students will apply two-point perspective to communicate three-dimensional forms. Students will build upon their understanding of perspective drawing by producing two-point perspective sketches of the exterior and interior of shipping containers. Students will generate a range of initial design ideas in response to their research. Using the research and planning completed during Term 1, students will begin creating a variety of design concepts. They will explore different layouts, styles, materials and interior features. Students will evaluate and improve their initial ideas. Students will compare their concepts against the design	Students will produce a final design proposal that responds to the design brief. Students will combine the research, planning and design development completed throughout the project to produce a refined final design. Students will apply scale when translating their design into a physical model. Students will develop an understanding of scale and proportion by converting the dimensions of a shipping container into an appropriate modelling scale. Students will develop practical modelling skills to construct a prototype. Students will explore a range of modelling techniques and materials to produce a three-dimensional prototype of their shipping container design. Students will select appropriate materials for model construction. Students will investigate the properties of modelling materials such as card, foam board, corrugated card and wood, considering their suitability for representing different features of their design. Students will work safely and responsibly when using tools, equipment and materials. Students will develop an understanding of safe working practices within the workshop or classroom environment. Students will adapt and refine their work throughout the modelling process. Students will recognise that design and manufacture are iterative processes. They will respond to practical challenges by modifying construction methods, improving structural stability and making informed decisions to achieve the best possible final model. Students will evaluate the success of their completed design and prototype. Students will critically assess how effectively

	to understand how visual choices affect mood, usability and aesthetics. • The students will need to consider Ergonomics and Anthropometrics such as Human measurements, Space planning, furniture sizes, Movement around a room, Comfort.	specification, identifying successful features and areas for development. • Students will evaluate their work and respond constructively to feedback. Students will develop their ability to critically assess their own designs and those of their peers.	their final design meets the original design brief and specification.
What pupils should already know (prior learning components)	Using pencil sketches to create 2D designs Drawing and rendering (presentation) skills evident. How to annotate and explain designs, identifying key features.	Using pencil sketches to create 2D designs Drawing and rendering (presentation) skills evident. How to annotate and explain designs, identifying key features. Understanding how to draw in one/two-point perspective and why we use this technique Understanding of what a floor plan is and why it is used	Understanding of Health and Safety within a workshop – be able to identify simple hazards and how to reduce the risks. Using tooling safely & confidently in order to produce an outcome. Using colour schemes and drawing techniques To be able to evaluate focusing on what processes went well or didn't go well.
Golden Knowledge	Golden Knowledge: Designing Golden Threads • Understanding the Design Brief • A successful design begins with thorough research. • Existing Product Analysis • Designers use research to inform design decisions. • Sustainability • Sustainability should be considered throughout the design process. • Target User • The needs of the target user influence every design decision. • Mind Mapping and Idea Generation • Mind maps, mood boards and annotated sketches help generate and communicate creative ideas.	<u>Golden Knowledge Safety, making and nets:</u> Golden Threads • Floor Plans • Floor plans communicate the layout and function of a space. • Perspective Drawing • One-point and two-point perspective create the illusion of depth and communicate three-dimensional designs. • Technical Drawing • Technical drawings require accuracy, proportion and clear annotation. • Design Development • Design ideas are refined through evaluation and development. • Design Principles • Successful designs balance functionality, aesthetics and sustainability.	Golden Knowledge:CAD Golden Threads • Final Design • A final design should respond fully to the design brief and specification. • Scale • Scale allows real-life objects to be represented accurately in model form. • Model Making • Prototypes communicate and test design ideas before production. • Health and Safety • Safe working practices are essential when using tools, equipment and materials. • Evaluation • Evaluation helps designers identify strengths and improve future outcomes.
Transferrable knowledge (skills)	How to use the design process in order to produce a product suitable for a specific user or client. Analyse and evaluate their work. Basic use of a CAD package to produce a concept model	How to draw in different perspectives How to create Initial designs using research and product analysis' Taking initial designs and developing them further before creating a well-informed final design	How to use a range of modelling tools and machinery confidently in order to keep safe in a practical environment. How to design products that are suitable for a specific user. How to make sustainable products from recycled materials.
Key vocabulary pupil will know and learn	Design brief, Context, Research, sustainability Initial Ideas, Computer Aided Design (CAD), rendering, Annotation, ACCESS FM.	Development, one-point perspective, two point perspective, floor plan, technical drawings, aesthetics, function, environment.	Risk, Hazard, Brief, sustainable, Adhesives, Health & safety, templates and jigs, CAM – Computer Aided Manufacture (CAM), Acrylic, typeface, font, packaging, card, cardboard, plastic, nets, 2d, 3d, folding, double sided tape, glue.
Assessment activities	30-minute summative assessment based of the final outcome – making, at the end of the project. Formative ongoing assessment used throughout the project in the form of verbal feedback and EBI.MRIs. Along with a design ideas milestone assessment Assessment is based around design and presentation skills and covers: 1. Ability to look at existing products that will influence our creative designs 2. Designs are well presented with accurate rendering and detailed annotations 3. Quality of graphic communication 4. Importance of CAD/ CAM 5. Understanding of how designers can be sustainable	30-minute summative assessment at the end of the project. Formative ongoing assessments used throughout the project in the form of verbal feedback and EBI.MRIs Assessment of: 1. Quality of initial designs 2. Quality of colouring in and rendering 3. Quality of development 4. Consideration of the brief while designing 5. Quality of final design 6. Consideration of sustainability whilst designing	30-minute summative assessment at the end of the project. Formative ongoing assessments used throughout the project in the form of verbal feedback and EBI.MRIs Assessment of: 1. importance safe working practice. 2. identification of modelling tools, research and processes. 3. Use tool effectively and accurately. 4. Be aware of relevant health and safety issues and awareness of suitable control measures. 5. Application of finishes. 6. Final Outcome
Resources available			