

Design and Technology: Y9

Medium term Plan

Autumn term 1

Learning Overview (Contents)	Theory: Innovation, manufacture and evaluation
Assessment Opportunities	Assessment is based on classwork, homework assignments, Tri-weekly tests and end of unit tests. In addition to these students will also be assessed on their practical assignments with a 50/50 ratio in these to reflect the GCSE assessment criteria. • BBC Bitesize – KS3 Design and Technology • URL: https://www.bbc.co.uk/bitesize/subjects/zfr9wmn • Technologystudent.com • URL: https://www.technologystudent.com • 3. HowStuffWorks – Science & Tech • URL: https://www.howstuffworks.com • 4. IET Education (The Institution of Engineering and Technology) • URL: https://education.theiet.org
Textbooks Published Lesson Resources	• Title: <i>Collins Key Stage 3 Design and Technology Student Book</i> • Title: <i>Design & Technology: KS3 Textbook (9-1 GCSE Foundation),</i> • Title: <i>Smart Skills: Design and Technology – Key Stage 3</i>
Home Learning Resources	All learning material will be shared with students in their workbooks. BBC Bitesize/TES resources/Design and Technology student.
Knowledge organisers	Shared with students at the end of each lesson. This will be added to their workbooks.

Week Number	Learning Overview / objective (outlined above)	What should pupils know, understand and be able to do by the end of the week? (Use clear Success criteria)
1. Biomimicry	1. Define biomimicry in product design 2. Identify examples inspired by nature 3. Explain how biomimicry solves design problems 4. Sketch a biomimetic product idea	Intro to biomimicry and nature-inspired design, Research and sketch an example of a biomimetic product, Annotate a photo of a natural form with design potential
2. Environmental Impact	1. Explain environmental issues in design 2. Evaluate material impact using LCA 3. Suggest sustainable alternatives 4. Understand carbon footprint in manufacturing	Life cycle analysis, sustainable materials, waste, Create a flowchart showing product life cycle stages, Write a paragraph on reducing waste in D&T
3. Product Requirements	1. Identify user needs and design problems	Understanding needs and writing specifications, Complete an ACCESS FM analysis for a small product,

	2. Apply ACCESS FM 3. Write a product design specification 4. Link requirements to function	Complete a SCAMPER worksheet for homework, Tri Weekly test
4. Innovation When Creating Ideas	1. Define innovation 2. Recognise features of innovative products 3. Generate original ideas 4. Improve an idea through innovation	What makes a product innovative? Examples and techniques, Generate 3 design ideas with innovative features, Select your strongest idea and explain your reasoning,
5. SCAMPER Design Technique	1. Use SCAMPER method to develop ideas 2. Apply each SCAMPER stage 3. Record design changes 4. Reflect on effectiveness of SCAMPER	Using SCAMPER to enhance creativity, Apply SCAMPER to a basic speaker design, Complete a SCAMPER worksheet for homework
6. Feedback and Develop	1. Collect peer and teacher feedback 2. Identify areas for improvement 3. Make informed design changes 4. Justify refinements	Peer assessment and development of design, Peer review activity + update sketches based on feedback, Annotate changes made and why they improve the design
7. AI in Design	1. Understand how AI supports design 2. Identify AI design tools 3. Evaluate advantages of AI 4. Consider ethical issues in AI use	Explore AI-powered tools and future trends, Research AI tools in design (e.g., generative design), Write a response to "Is AI a threat or tool in design.
8. Properties and Scale	1. Define material properties 2. Match materials to function 3. Understand scale and proportion 4. Use scale accurately in drawings	Properties of woods, plastics, metals; scale use, Match materials to products; complete scale drawing activity, Create a materials comparison chart.
9. Materials in Manufacturing	1. Identify suitable manufacturing materials 2. Discuss cost, strength, appearance 3. Understand how materials are processed 4. Choose materials for speaker enclosure	Focus on MDF, acrylic, plywood, polymers, Create a materials comparison chart Write a justification for selected materials, Tri-weekly test.
10	Assessment	End of Unit Assessment Accounts for 50% of the overall mark

Design and Technology: Y9

Medium term Plan

Autumn term 2

Learning Overview (Contents)	Practical Lesson: Desk organiser
Assessment Opportunities	Assessment is based on classwork, homework assignments, Tri-weekly tests and end of unit tests. In addition to these students will also be assessed on their practical assignments with a 50/50 ratio in these to reflect the GCSE assessment criteria. - BBC Bitesize – KS3 Design and Technology - URL: https://www.bbc.co.uk/bitesize/subjects/zfr9wmn - Technologystudent.com - URL: https://www.technologystudent.com 3. HowStuffWorks – Science & Tech - URL: https://www.howstuffworks.com 4. IET Education (The Institution of Engineering and Technology) - URL: https://education.theiet.org
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Week Number	Learning Overview / objective (outlined above)	What should pupils know, understand and be able to do by the end of the week? (Use clear Success criteria)
1. Product Analysis	1. Identify the purpose and features of existing desk organisers 2. Evaluate materials and construction methods 3. Use ACCESS FM for analysis 4. Record findings visually and in writing	Analyse a variety of desk organiser examples (real or digital), Complete ACCESS FM analysis of 2–3 products, Take photos of a desk at home and suggest what it needs
2. Reverse Engineering	1. Disassemble or inspect a product 2. Understand how parts are joined and shaped 3. Sketch and label components 4. Suggest improvements or changes	Hands-on analysis of a product to see how it's made, Take photos of a desk at home and suggest what it needs, Annotate sketches with materials, joints and improvements
3. Initial Designs	1. Create 2–3 design ideas 2. Use isometric sketching 3. Annotate designs with materials and features 4. Reflect on how designs meet the user need	Drawing and annotation techniques; creativity and variety, Sketch initial ideas for a desk organiser with at least 2 compartments, Choose your favourite design and explain why, Tri-weekly test

4. Design Development (SketchUp)	1. Use SketchUp to build a 3D model 2. Apply correct dimensions 3. Create grouped components 4. Begin developing the chosen idea digitally	SketchUp skills: drawing, push/pull, measuring, grouping, Begin building your desk organiser in 3D from initial sketch, Take screenshots of progress; label main features.
5. Final Design Using SketchUp	1. Finalise the 3D model with details 2. Ensure parts align correctly 3. Export 2D views or sections 4. Evaluate the 3D model against the brief	Finalising and refining digital models; exporting drawings, Complete the final SketchUp model of the desk organizer, Reflect on changes made between sketch and digital model.
6. Draw Components (2D Design)	1. Draw accurate 2D components 2. Use CAD tools (TechSoft or equivalent) 3. Apply line colours and layer settings for cutting 4. Prepare files for laser cutting	Create 2D cutting profiles for components, Use CAD software to draw components to scale, Save files ready for cutting and submit for feedback.
7. Laser Cutting – Part 1	1. Set up files for laser cutting 2. Understand machine safety 3. Cut or engrave components 4. Manage materials and minimise waste	Laser cutter introduction; loading materials and files, Begin laser cutting flat-pack parts of the organizer, Photograph process and record material usage.
8. Laser Cutting – Part 2	1. Continue cutting all required parts 2. Check accuracy and fit 3. Organise parts for assembly 4. Reflect on precision and potential errors	Continue cutting; supervise for accuracy, Finish laser cutting and label all pieces, Write a checklist for assembly
9. Assembly of Components	1. Dry fit parts for accuracy 2. Use adhesives or fixings correctly 3. Clamp and hold joints 4. Ensure stability and alignment	Gluing, fixing, and assembling techniques, Assemble components in correct order and glue securely, Research best placement and cable routing options, Tri-weekly test
10.	Assessment	End of Unit Assessment Accounts for 50% of the term mark

Assessment Rubric – Night Light Project (KS3, Levels 1–9)

Level	Measuring & Marking Out	2D Design (CAD Proficiency)	Safe Use of Hand Tools	CAD/CAM Understanding	Laser Cutter Use	Finishing Techniques	Working Prototype
9–8	Highly accurate, consistent measuring and marking out using a variety of tools. Layout is exact and professional.	Independently creates layered, grouped 2D Design files. Uses design rules (line weights, colours) expertly.	Tools used with confidence and precision. Fully safe and independent; mentors others.	Clearly understands CAM process. Independently prepares files, sets up CAM, and troubleshoots.	Fully independent. Sets up laser cutter, loads material, adjusts settings and supervises the cut safely.	Flawless finish. Smooth edges, refined paint/stain, minimal glue marks. High attention to aesthetics.	Excellent fit, structure, and function. Design brief fully met. Visually impressive and sturdy product.

7–6	Mostly accurate measurements and layout. Minor marking errors. Good tool choice and measuring habits.	Confidently creates and edits 2D Design files with guidance. Correct use of tools, fonts, and layout.	Uses hand tools safely and correctly. Good control, minimal supervision needed.	Understands CAM workflow. Prepares files and sets up basic cutting with some assistance.	Operates laser cutter with supervision. Can follow safety checks and run a cut with support.	Good overall finish. Most surfaces are smooth. Minor blemishes or glue marks.	Product assembled securely and functions well. Minor cosmetic or alignment issues.
5–4	Some measurement and marking errors, but overall layout is functional. Needs regular checks.	Basic file created with support. Understands layout, but may struggle with grouping or tool paths.	Tool use is safe but inconsistent. Requires supervision for accuracy and safety.	Developing understanding of CAD/CAM. Needs support to export files or choose correct settings.	Requires support throughout the laser cutting process. May be unsure of safety checks.	Finish attempted but may be patchy or rough in areas. Basic sanding or painting evident.	Product is mostly functional but may lack strength or finish. Limited attention to detail.
3–2	Frequently inaccurate. Lacks understanding of correct tools or technique. Needs constant support.	Minimal 2D Design understanding. File may not be usable without significant teacher input.	Unsafe or awkward tool use. Requires constant supervision.	Little understanding of CAM or file preparation.	Cannot operate laser cutter without direct instruction. Safety awareness lacking.	Poor finish. Rough edges or visible damage. No paint/stain or excess glue.	Unstable or incomplete product. Significant functional or assembly issues.
1	No accurate measuring or layout attempted. No evidence of planning.	No usable CAD file produced. Unable to engage with software.	Unsafe with tools. No independent use demonstrated.	No understanding of CAD/CAM shown.	Unable to use laser cutter. May present a safety risk.	No finishing attempted. Product left in raw condition.	Product not assembled or does not resemble intended outcome. Non-functional.

Category	Weight (%)
Measuring & Marking Out	15%
2D Design (CAD Proficiency)	20%
Hand Tool Use	15%
CAD/CAM Understanding	15%

Laser Cutter Use	10%
Finishing Techniques	15%
Final Prototype	10%

Design and Technology: Y9
Medium term Plan
Spring Term 1

Learning Overview (Contents)	Theory: New, Modern and Smart Materials
Assessment Opportunities	Assessment is based on classwork, homework assignments, Tri-weekly tests and end of unit tests. In addition to these students will also be assessed on their practical assignments with a 50/50 ratio in these to reflect the GCSE assessment criteria. • BBC Bitesize – KS3 Design and Technology • URL: https://www.bbc.co.uk/bitesize/subjects/zfr9wmn • Technologystudent.com • URL: https://www.technologystudent.com • 3. HowStuffWorks – Science & Tech • URL: https://www.howstuffworks.com • 4. IET Education (The Institution of Engineering and Technology) • URL: https://education.theiet.org
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Home Learning Resources	All learning material will be shared with students in their workbooks. BBC Bitesize/TES resources/Design and Technology student.
Knowledge organisers	Shared with students at the end of each lesson. This will be added to their workbooks.

Week Number	Learning Overview / objective (outlined above)	What should pupils know, understand and be able to do by the end of the week? (Use clear Success criteria)
1. New Technologies	1. Define what is meant by ‘new technologies’ in design 2. Identify current trends in product innovation 3. Describe how new technologies change manufacturing 4. Give examples of cutting-edge innovations	Understanding how technology shapes product design, Research 3 new technologies and their impact, Create a short report on a technology that has changed design
2. Design and New Technologies	1. Explain how new technologies influence designers 2. Identify products improved by tech 3. Understand how designers adapt to emerging trends 4. Apply future-thinking to a design brief	Link between technology and the creative process, Analyse a case study of a tech-influenced product, Sketch a product redesign using a new technology
3. Energy Generation	1. Identify different energy sources 2. Explain renewable vs non-renewable energy 3. Describe how energy is generated for design and production 4. Evaluate pros and cons of each method	Focus on solar, wind, hydro, fossil fuels, nuclear, Create a comparison chart of energy sources, Explain how your school could improve energy use, Tri-weekly test
4. Energy Impact on Design	1. Understand how energy availability affects design 2. Consider energy efficiency in products 3. Explore low-energy design strategies	Energy-conscious design thinking, Case study: energy-efficient product redesign, Write a product critique focusing on energy use.

	4. Analyse how energy choice impacts sustainability	
5. Modern Materials	1. Define 'modern materials' and give examples 2. Identify properties of modern materials 3. Explain how they differ from traditional materials 4. Match modern materials to product needs	Graphene, carbon fibre, polymorph, Teflon, etc Case study: energy-efficient product redesign, Write a product critique focusing on energy use. Match products to appropriate modern materials, Research a product that uses a modern material
6. Smart Materials	1. Define what smart materials are 2. Describe how they respond to stimuli 3. Identify real-world examples (e.g. thermochromic, shape memory) 4. Suggest uses for smart materials in design	Properties and uses of smart materials, Group discussion: match smart materials to design contexts, Design a product using at least one smart material, End of Unit Test
7. Electronic Systems	1. Understand what an electronic system is 2. Identify input, process and output components 3. Draw and label a basic system 4. Understand how systems solve design problems	Introduction to electronic systems and block diagrams, Label components in a system diagram, Create a basic system using drawn symbols.
8. Electronic Systems (continued)	1. Describe how systems are integrated into products 2. Identify types of sensors and outputs 3. Understand the role of microcontrollers 4. Analyse real products that use systems	Sensors, actuators, system flow in real applications, Deconstruct a product example to identify system parts, Choose a system-based product and explain its function
9.	Assessment	End of Unit assessment Accounts for 50% of the Unit overall mark

Design and Technology: Y9
Medium term Plan
Spring Term 2

Learning Overview (Contents)	Practical Lesson: Art Deco or Bauhaus self-standing clock
Assessment Opportunities	Assessment is based on classwork, homework assignments, Tri-weekly tests and end of unit tests. In addition to these students will also be assessed on their practical assignments with a 50/50 ratio in these to reflect the GCSE assessment criteria. • BBC Bitesize – KS3 Design and Technology • URL: https://www.bbc.co.uk/bitesize/subjects/zfr9wmn • Technologystudent.com • URL: https://www.technologystudent.com • 3. HowStuffWorks – Science & Tech • URL: https://www.howstuffworks.com • 4. IET Education (The Institution of Engineering and Technology) • URL: https://education.theiet.org
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Home Learning Resources	All learning material will be shared with students in their workbooks. BBC Bitesize/TES resources/Design and Technology student.
Knowledge organisers	Shared with students at the end of each lesson. This will be added to their workbooks.

Week Number	Learning Overview / objective (outlined above)	What should pupils know, understand and be able to do by the end of the week? (Use clear Success criteria)
1. Introduction to Art Deco and Bauhaus	1. Identify key features of both movements 2. Compare differences and similarities 3. Understand cultural/historical context 4. Choose a style to influence design	Art Deco vs Bauhaus: visual language and philosophy, Complete style comparison worksheet; mood board, Find 3 products inspired by chosen style
2. Product Analysis	1. Analyse existing clock designs 2. Identify functional and aesthetic features 3. Use ACCESS FM for evaluation 4. Determine best design elements to use	Looking at existing Art Deco & Bauhaus clocks, Complete a product analysis table, Sketch 1 existing product and annotate it.
3. Initial Ideas	1. Generate 3 clock design ideas 2. Incorporate chosen style 3. Use annotation to explain ideas 4. Consider materials and shape	Design idea generation and layout, Sketch 1 existing product and annotate it, Choose and justify a final idea Tri-weekly test
4. Develop Final Design	1. Refine chosen design 2. Include dimensions and materials 3. Consider assembly methods	Developing ideas toward manufacture, Draw final design with full labels and notes, Reflect on improvements made to design

	4. Justify final aesthetic and style choices	
5. CAD – 2D Design Drawing	1. Convert design into 2D CAD 2. Use line types and colours for laser cutting 3. Apply correct measurements 4. Plan component layout on material	Using 2D Design or similar software, Begin drawing front face and base panels, Export initial file and screenshot progress.
6. CAD – Finalise Components	1. Finalise all clock face and support parts 2. Prepare parts for CAM 3. Simulate cutting process 4. Understand layers and laser-cut settings	Laser cutting prep and simulation, Finalise and save files for cutting, Label printed screenshots of final design. Tri-weekly test.
7. Laser Cutting – Part 1	1. Set up materials correctly 2. Use the laser cutter safely 3. Understand laser settings 4. Begin cutting parts accurately	Introduction to CAM setup and operation, Begin cutting body and face components, Clean and check cut parts for defects.
8. Laser Cutting – Part 2	1. Finish cutting all clock components 2. Label and organise parts 3. Perform dry fit of assembly 4. Modify any pieces that need re-cutting	Continuation and quality check of output, Complete all cutting and review tolerance, Evaluate laser cut quality.
9. Assembly – Part 1	1. Prepare edges and surfaces 2. Follow assembly sequence 3. Use adhesives safely 4. Ensure symmetry and balance	Begin clock structure assembly, Note any final adjustments needed Assemble base and front frame, Paint or finish clock according to style Tri-weekly assessment
10	Label and present	Display work in the main reception of the school

Assessment Rubric – Desk Tidy Project (KS3, Levels 9–1)

Level	Measuring & Marking Out	2D Design Proficiency (CAD)	Safe Use of Hand Tools	CAD/CAM Understanding	Laser Cutter Operation	Working Within Material & Mechanism Constraints	Finishing Techniques	Working Prototype
9–8	Extremely precise measurements and layout. Confident, independent use of tools like rulers, try squares,	Independently produces clean, layered, grouped 2D Design files. Uses correct line types and color coding.	Uses all hand tools safely and expertly with consistent control and accuracy.	Independently exports CAD files correctly, sets up CAM processes, selects correct materials and settings.	Fully independent. Performs safety checks, sets parameters, loads materials, and runs machine	Designs intelligently account for material thickness, tolerances, and clock mechanism fit. No	Flawless finish: smooth edges, professional paint/stain, balanced contrast. Links visually to Art Deco	Fully functioning, stable, and stylish. Design is precise and reflects the chosen

	and dividers.				confidently.	clashes or waste.	or Bauhaus themes.	style clearly. Clock mechanism fits and works perfectly.
7–6	Accurate marking with minor errors. Good use of tools. Lines and angles are consistent and considered.	Creates functional 2D Design files with guidance. Good understanding of layers, fonts, and cut/engrave lines.	Confident with most hand tools. Occasional slips, but always safe.	Prepares files with minimal help. Understands CAM settings and materials.	Uses laser cutter safely with supervision. Can troubleshoot minor issues.	Design fits clock mechanism with minimal adjustments. Materials used efficiently and within tolerance.	Neat, consistent finish. Some imperfections. Clear effort to reflect chosen style (e.g. colour, geometry).	Fully functional. Mechanism fits well. May have small visual or alignment flaws.
5–4	Some accurate measurements, but not consistent. Uses tools correctly with reminders.	Basic 2D Design layout achieved with support. May miss line types or layering conventions.	Uses tools safely but requires support for control and precision.	Needs support to export files or prepare for CAM. Partial understanding of the workflow.	Operates laser cutter with direct supervision. Understands key safety steps.	Minor misalignment or sizing issues. Clock may be loosely fitted or require rework.	Finish attempted, but may be patchy or rushed. Limited detail. Some style reference attempted.	Clock mostly functions, but may be loose, unstable, or visually inconsistent. Mechanism works with adjustment.
3–2	Inconsistent or inaccurate marking. Unclear layout. Frequent measurement errors.	Struggles to complete CAD file. Requires step-by-step support.	Safe with tools but lacks confidence or coordination. Needs continuous guidance.	Needs teacher input at all stages. Limited understanding of CAM setup.	Can only operate laser cutter under supervision. Doesn't recall safety steps independently.	Clock does not fit together well or mechanism doesn't align. Poor material consideration.	Poor finish. Little effort to smooth edges or apply consistent colour. No clear visual style.	Clock does not function as intended. Loose, incomplete, or visually incorrect.
1	No understanding of	No usable CAD work produced.	Unsafe with tools or unable to use	No understanding of file export or	Cannot operate laser cutter	Design does not fit mechanism	No finishing applied or project	Product not assembled or non-

	measuring or layout.		independe ntly.	CAM processes.	even with support.	m or material. No awareness of constraint s.	incomplet e.	functiona l. Mechani sm not installed or working.
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Design and Technology: Y9 Medium term Plan Summer term 1

Learning Overview (Contents)	Theory: CAD
Assessment Opportunities	Assessment is based on classwork, homework assignments, Tri-weekly tests and end of unit tests. In addition to these students will also be assessed on their practical assignments with a 50/50 ratio in these to reflect the GCSE assessment criteria.

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Knowledge organisers	Shared with students at the end of each lesson. This will be added to their workbooks.

Week Number	Learning Overview / objective (outlined above)	What should pupils know, understand and be able to do by the end of the week? (Use clear Success criteria)
1. Introduction to SketchUp	- Understand what SketchUp is used for in design - Navigate the 3D workspace - Use basic tools: rectangle, push/pull, orbit - Create simple 3D shapes	Demonstrate SketchUp interface and tools, Students follow guided task to create a cube and rectangular prism Practice using camera tools, Watch a beginner SketchUp tutorial and write down 3 tools demonstrated
2. Drawing & Editing 3D Objects	- Use guides and tape measure for accurate dimensions - Apply move, copy, rotate tools - Group and name components - Edit existing shapes	Teach object transformation and component grouping, Students build a small 3D furniture item (e.g. table or desk tidy) using learned tools, Screenshot their design and annotate 3 tools they used.
3. Design Presentation in SketchUp	- Apply materials and textures - Use the paint bucket and styles - Create multiple view exports - Present a finished 3D model	Demonstrate applying materials and exporting views, Finish 3D design with textures Create and save 3 view exports (front, top, isometric), Reflect: How could your design be improved? (Short paragraph) Tri-weekly test
4. Introduction to 2D Design (TechSoft or similar)	- Understand the difference between CAD for 2D and 3D - Identify basic tools: line, rectangle, circle - Create basic shapes to scale - Know how different colours define cut/engrave lines	Introduce 2D Design workspace, layers, and colours, Draw simple nameplate with text and a border Apply correct colours for cutting (red) and engraving (blue/black), List 3 real-world products made using 2D Design and laser cutting.
5. Editing and Arranging Designs	- Use duplicate, array, mirror, and trim tools - Group, align, and layer design elements - Refine layout for clarity and balance	Demonstrate editing tools and alignment strategies, Students create a symmetrical or patterned design (e.g. bookmark, badge), Screenshot and annotate their design showing tools used.

	- Check line thickness and colour coding	
6. Finalising and Exporting 2D Design Files	- Finalise a laser-ready file - Ensure correct line colours and no open paths - Save/export file for cutting - Review and self-assess design	Recap laser cutter file requirements Introduce exporting process Finalise their 2D Design product for laser cutting Complete a short self-assessment of their work Submit final design digitally or on USB (if applicable) Tri-weekly test
9.	Assessment	End of Unit Assessment Accounts for 50% of the term mark

Design and Technology: Y9

Medium term Plan

Summer term 2

Learning Overview (Contents)	Practical Project: Architecture 3Bedroom bungalow Study the work of Norman Foster
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Week Number	Learning Overview / objective (outlined above)	What should pupils know, understand and be able to do by the end of the week? (Use clear Success criteria)
1. Introduction to Planner 5D & Project Brief	- Understand the purpose and interface of Planner 5D - Explore key tools: wall, room, window, door - Define the brief: 3-bedroom family home - Plan zones (living, sleeping, dining, utility)	Introduction to architecture and a study of Norman Foster Introduction to 5D planner Set expectations: number of rooms, functionality, user needs, Set up a new project Create floor plan outline with internal walls, Sketch floor plan layout on paper for reference
2. Room Layout & Zoning	- Add and resize rooms appropriately - Apply room names and adjust wall thickness - Understand space zoning for function and privacy - Include hallways, stairs if multi-floor	Demonstrate creating rooms and setting functions, Students arrange living room, kitchen, bedrooms, and bathrooms Ensure logical flow between spaces, Optional: Research average UK bedroom sizes
3. Doors, Windows & Navigation Flow	- Add internal and external doors and windows - Understand the importance of natural light and ventilation - Review movement between rooms (circulation space) - Apply appropriate sizing and placements	Demonstrate door and window tools, Discuss room accessibility and egress, Place all doors and windows logically Check that furniture can fit through spaces, Screenshot and reflect: "Does my layout flow well?" Tri-weekly test
4. Interior Design & Fixtures	- Select suitable furniture and fixtures - Decorate rooms using textures	Demonstrate how to place and resize furniture Link furniture to room usage, Research one interior design style (e.g. Scandinavian, Modern)

	and colours - Understand proportion and scale of furniture - Match furnishings to room function	Students furnish all rooms appropriately Customise colour schemes, flooring, and walls,
5. Garden & Exterior Design	- Add outdoor areas (garden, patio, drive) - Understand site layout: access, space use - Customise roof, exterior wall finishes - Add trees, paths, and outdoor furniture	Teach exterior tools, roofing, landscape layout, Design garden and outdoor area Set exterior materials and house colour, Optional: Draw your garden plan by hand
6. Review, Present & Evaluate	- Review and refine design - Create camera views and export images - Present key features to class or teacher - Reflect on how well the house meets the brief	Demonstrate rendering and exporting images Discuss peer/self-evaluation criteria, Export and present house design Complete evaluation sheet based on layout, flow, realism Submit final screenshot and written evaluation Tri-weekly test.
	Label Product	Students display their work in the main reception of the school