

| Year 7 - Scheme of Learning: Graphics | | | | |
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| Word Rich - Oracy, Vocabulary, Reading, Writing | Character (SMSC & Values) | Careers & Employability | Enrichment & Cultural Capital | Equality, Diversity & Inclusivity |
| <ul style="list-style-type: none"> ❖ Tier 2/3 Vocabulary every lesson - meanings and etymology ❖ Use of texts to support reading/research ❖ Group presentations - Oracy | <ul style="list-style-type: none"> ● SMSC: Sustainability ● Values taught through moral choices when designing buildings | <ul style="list-style-type: none"> ● Links to Architecture, Interior Design, CAD modelling | <ul style="list-style-type: none"> ● Links to architecture and design cross the world. ● Promotion of design competitions | <ul style="list-style-type: none"> ● Career role models diverse in culture, race and gender |
| Formal Assessments (Title/Date) | | | Blended Learning | Home Learning |
| <ul style="list-style-type: none"> ❖ Design and evaluation Shipping Container Home (TinkerCAD) (30 Marks) ❖ Manufacturing of Prototype Model (30 Marks) ❖ End of Module Theory Test (30 marks) | | | <ul style="list-style-type: none"> ● CAD modelling ● Moodboard ● Research | <ul style="list-style-type: none"> ● Moodboard ● Energy Generation Research ● Competition of Tinkercad |
| Topic | Knowledge and Skills | Curriculum Links and Sequencing | National Curriculum (<i>including KS2</i>) | |
| Sustainability & Energy Generation <i>Lesson 1-4</i> | <ul style="list-style-type: none"> ★ Intro to subject, careers and DT links ★ Sustainability - Meaning in terms of design and 6 Rs ★ Energy Generation: Fossil Fuels Vs Renewables ★ <i>Advantages and disadvantages of coal, oil, gas, wind, solar, hydroelectric</i> ★ Research and evaluation of eco homes | GCSE Link: → 1:3 Energy Generation → 1.13 Investigate the work of others Wider Curriculum Links: → Links with Geography & Science → Cultural SMSC Sequencing Links: → 6 Rs across all DT and progresses in depth in Y8/9 | <ul style="list-style-type: none"> ● understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists ● analyse the work of past and present professionals and others to develop and broaden their understanding | |
| Responding to a design brief & Specification | <ul style="list-style-type: none"> ★ Design brief: Sustainable shipping container homes | GCSE Link: → 2.1 NEA Design and Develop Wider Curriculum Links: | <ul style="list-style-type: none"> ● use research and exploration, to identify and understand user needs | |

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| <i>Lesson 5</i> | <ul style="list-style-type: none"> ★ Responding to a specification - consider constraints, materials, ★ Developing a mood board based on the specification and brief | <ul style="list-style-type: none"> → Careers: (Architecture & Design) <p>Sequencing Links:</p> <ul style="list-style-type: none"> → Understanding Specification - links to All DT areas and future progression | <ul style="list-style-type: none"> ● identify and solve their own design problems and understand how to reformulate problems given to them ● develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations ● use a variety of approaches [for example, biomimicry and user-centred design], to generate creative ideas and avoid stereotypical responses develop and communicate design ideas ● using annotated sketches, detailed plans, 3-D and mathematical modelling, oral and digital presentations and computer-based tools |
| <p>Drawing Skills <i>Lesson 6-7</i></p> | <ul style="list-style-type: none"> ★ Drawing plans ★ Understanding scale ★ Drawing 1 & 2 point perspective sketches ★ Rendering techniques | <p>GCSE Link:</p> <ul style="list-style-type: none"> → 1.17 Communication to present ideas → NEA: Design & Develop <p>Wider Curriculum Links:</p> <ul style="list-style-type: none"> → Maths (Scale) Art (use of media) → Career: CAD technician | |
| <p>CAD Modelling <i>Lesson 8-10</i></p> | <ul style="list-style-type: none"> ★ Advantages, disadvantages and used of CAD ★ Develop basic to more complex CAD Skills ★ Assessment: Design a Sustainable Shipping Container Home using CAD | <p>Sequencing Links:</p> <ul style="list-style-type: none"> → Basic design skills - drawing, perspective, CAD modelling to build onto more progressive techniques in Y8/9 | |
| <p>Evaluation <i>Lesson 10</i></p> | <ul style="list-style-type: none"> ★ Assessment: Evaluation and annotation against specification ★ Peer and self-assessment ★ Recap skills and knowledge gained so far | <p>GCSE Link:</p> <ul style="list-style-type: none"> → NEA: Evaluation <p>Wider Curriculum Links:</p> <ul style="list-style-type: none"> → English (Structure of an evaluation) <p>Sequencing Links:</p> <ul style="list-style-type: none"> → Use of spec to evaluate | <ul style="list-style-type: none"> ● test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups |
| <p>Modelling & Prototyping <i>Lesson 11-13</i></p> | <ul style="list-style-type: none"> ★ Tradition sketch modelling techniques ★ Health and safety, use of modelling tools ★ Properties of cards/boards, adhesives ★ Assessment: Final model of home | <p>GCSE Link:</p> <ul style="list-style-type: none"> → NEA: Manufacture <p>Wider Curriculum Links:</p> <ul style="list-style-type: none"> → Maths (Measurement & Scale) → Career: Model maker <p>Sequencing Links:</p> <ul style="list-style-type: none"> → Introductory making skills to progress onto Y8/9 | <ul style="list-style-type: none"> ● select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture |
| <p>End of module Test & Reflection</p> | <ul style="list-style-type: none"> ★ Assessment: End of module test (Knowledge) ★ Review and reflection of marks ★ Links to careers and other subjects | <p>GCSE Link:</p> <ul style="list-style-type: none"> → Core Theory <p>Wider Curriculum Links:</p> <ul style="list-style-type: none"> → English and Maths | <ul style="list-style-type: none"> ● |

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| <i>Lesson 14-15</i> | ★ Reflect on Learning Journey and DT mapping & progressions | Sequencing Links: → Knowledge recall through exam style questions | |
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