

Curriculum on a page DT

DT	Autumn Term	Spring term	Summer term	Assessment of learning	Enrichment
Year 7	Baseline test – Generic what do you know test, used to guide future learning. Keyring project – Acrylic CAD/CAD and hand finishing skills used.	Keyring project – Acrylic CAD/CAD and hand finishing skills used.	2D Design CAD/CAM- CAD drawing unit, pupils introduced to new software. pupils will research villas, then will use new skills to	Pupils follow the design process in order to research, analyze, design and develop their choices. These elements will be marked and feedback given on what went well and also how to improve each area. All practical skills covered during the make process will be reviewed and summarized in a new practical skills log , pupils will use this to show an understanding of what skills they have undertaken during each of their projects	Links to DT club, maths and CAD club
Year 8	Knowledge check –Summary of previous years' work. Picture frame project – Pine personalised frame using CAD/CAM and traditional making skills.	Picture frame project – Pine personalised frame using CAD/CAM and traditional making skills.	Google SketchUP – CAD drawing unit, pupils introduced to new software. pupils will research villas, then will use new skills to produce a 3D design		Links to DT club, maths and CAD club
Year 9	Knowledge check –Summary of previous years' work Inlay timber box – timber box using a range of hand tool and techniques to produce a high quality finished product.	Inlay timber box – timber box using a range of hand tool and techniques to produce a high quality finished product.	Google SketchUP – CAD drawing unit, pupils introduced to new software. pupils will research villas, then will use new skills to produce a 3D design.		Links to DT club, maths and CAD club
Year 10	Intro into new course – look at units, specification and how grades are awarded. Pupils will cover Unit 1 , 1.1, 1.2, 1.3. Unit 2 , 2.1, 2.2, 2.3, 2.7 from the course specification in the first term lessons. Mini assessment tasks throughout	Pupils will continue to work through the course specification. Pupils will cover Unit 1 , 1.4, 1.5, 1.6. Unit 2 , 2.4, 2.5, 2.6 from the course specification in the first term lessons. Mini assessment tasks throughout	Pupils will continue to work through the course specification. Pupils will cover Unit 1 , 1.7, 1.8. Unit 2 , 2.6, 2.7, 2.8 from the course specification in the first term lessons. Mini assessment tasks throughout Pupils will start to prep for the upcoming Unit 1 mock in May.	Unit 1 - Introduction to the built environment (exam) This unit provides an appropriate foundation insight to the construction sector. Learners are required to demonstrate their knowledge and understanding of eight specified areas of content, all of which are critical to the industry Unit 2 - Designing the built environment (controlled assessment) learners will gain knowledge and understanding of the design of the built environment, encompassing what information is required to produce a drawing, and the different types of media used in both approval and planning of the built environment	Links to DT club, maths and CAD club
Year 11	Unit 2 Designing the built environment – Pupils will recap all skills in a final mock assessment before starting the Unit 2 controlled assessment task for real. This is a large task with 30 assessed hours given to complete all tasks.	Unit 2 Designing the built environment – Pupils will continue with the Unit 2 controlled assessment task for real. This is a large task with 30 assessed hours given to complete all tasks.	Unit 1 – Introduction to the built environment – Pupils have continued to work on theory skills throughout the year but will pick it back up in all lessons straight after pupil's finish Unit 2. Pupils will complete multiple mini mocks and recover key elements of the specification in preparation for the exam in May.		Links to DT club, maths and CAD club

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Assessment Map 2021-22



Design Technology standardised assessment:

Year 7/8/9 – 1 lesson every 2 weeks. Knowledge checks and practical skills booklets

Year 10/11 – 2 lessons per week. Controlled assessment tasks and exam prep.

Department: **Design Technology/WJEC Designing the Built Environment**

EPS	Year 7	Year 8	Year 9	Year 10	Year 11
2	<p>Focus: Baseline test – covers a wide range of skills taught across KS2 and KS3, checking to see what knowledge and understanding different pupils have come to us with from primary.</p> <p>Structure: 30-minute written paper: Containing a range of multiple choice knowledge questions and extended response questions on knowledge application and skills</p> <p>Knowledge and skills assessed:</p> <ul style="list-style-type: none"> Understand the basic design process Understand how plastics can be processed and finished Understand CAD/CAM and its importance in design technology Understand the importance of H/S in a practical environment Ability to name different tools/machines Ability to draw in 3D 	<p>Focus: Knowledge check – covers a wide range of skills taught across Year7 and some content going to be covered in year 8. Checking to see what knowledge and understanding pupils have understood from Year 7.</p> <p>Structure: 30-minute written paper: Containing a range of multiple choice knowledge questions and extended response questions on knowledge application and skills</p> <p>Knowledge and skills assessed:</p> <ul style="list-style-type: none"> Understand the basic design process Understand how plastics can be processed and finished Understand CAD/CAM and its importance in design technology Understand the importance of H/S in a practical environment Ability to name different tools/machines Ability to draw in 3D 	<p>Focus: Knowledge check – covers a wide range of skills taught across Year 7 + 8 and some content going to be covered in year 9. Checking to see what knowledge and understanding pupils have understood from Year 8.</p> <p>Structure: 30-minute written paper: Containing a range of multiple choice knowledge questions and extended response questions on knowledge application and skills</p> <p>Knowledge and skills assessed:</p> <ul style="list-style-type: none"> Understand the basic design process Understand how plastics can be processed and finished Understand CAD/CAM and its importance in design technology Understand the importance of H/S in a practical environment Ability to name different tools/machines Ability to draw in 3D 	<p>Focus: Unit 1 Introduction to the built environment (EXAM) This unit provides an appropriate foundation insight to the construction sector. Learners are required to demonstrate their knowledge and understanding of eight specified areas of content, all of which are critical to the industry</p> <p>Structure: Pupils will work through all assessment criteria points for units 1 and 2.</p> <p>Knowledge and skills assessed:</p> <p>Be able to use computer software for on screen 3D modelling of construction designs</p> <p>AC3.1 draw 2D plans of construction Designs</p> <p>AC3.2 draw 3D plans of construction Designs</p>	<p>Focus: Unit 2 - Drawing construction plans, the purpose of this unit is for learners to develop the skills needed to use computer software to present drawings of construction designs.</p> <p>Structure: Unit 2 Mock – Detached house extension, Direct links to the Full mark scheme.</p> <p>Knowledge and skills assessed:</p> <p>Be able to use mathematical techniques for construction designs</p> <p>AC1.1 identify information requirements for construction designs</p> <p>AC1.2 calculate information required for construction designs</p> <p>Be able to draw construction designs</p> <p>AC2.1 draw plans</p>

	<ul style="list-style-type: none"> • Demonstrate an understanding basic hand tool skills • Ability to demonstrate how to follow H/S rules and procedures within a practical classroom 	<ul style="list-style-type: none"> • Demonstrate an understanding basic hand tool skills • Ability to demonstrate how to follow H/S rules and procedures within a practical classroom 	<ul style="list-style-type: none"> • Demonstrate an understanding basic hand tool skills • Ability to demonstrate how to follow H/S rules and procedures within a practical classroom 	AC3.3 add features to 3D plans of construction designs	AC2.2 draw elevations AC2.3 use language of drafting
4	<p><u>Focus:</u> Key ring project</p> <p><u>Structure:</u> Mixture of design and practical skilled tasks</p> <p><u>Knowledge and skills assessed:</u></p> <ul style="list-style-type: none"> • Understand the basic design process • Understand how plastics can be processed and finished • Understand CAD/CAM and its importance in design technology • Understand the importance of H/S in a practical environment • Ability to choose machines based on what why want to perform 	<p><u>Focus:</u> Personalised picture frame</p> <p><u>Structure:</u> Mixture of design and practical skilled tasks</p> <p><u>Knowledge and skills assessed:</u></p> <ul style="list-style-type: none"> • Understand how to work to a design brief • Understand what Quality control is • Understand how you can join timbers together • Ability to identify different timber types • Understand the finishing process for timbers • Understand why we add a finish to timbers 	<p><u>Focus:</u> Inlay timber box</p> <p><u>Structure:</u> Mixture of design and practical skilled tasks</p> <p><u>Knowledge and skills assessed:</u></p> <ul style="list-style-type: none"> • Understand the basic design process • Understand how plastics can be processed and finished • Understand basic electronics • Understand CAD/CAM and its importance in design technology • Understand the importance of H/S in a practical environment • Ability to choose machines based on 	<p><u>Focus:</u> Unit 1 Planning potential of construction projects - The purpose of this unit is for learners to develop the skills needed to report on the potential of a proposed construction project.</p> <p><u>Structure:</u> Unit 1 mock riverside development.</p> <p><u>Knowledge and skills assessed:</u></p> <p>Understand planning requirements for construction projects</p> <p>AC1.1 outline protection given to designated areas AC1.2 describe the planning process for construction projects AC1.3 explain planning consent</p>	<p><u>Focus:</u> Unit 3 - Building structures and materials.</p> <p>The purpose of this synoptic unit is for learners to draw on their learning related to planning potential and design of construction projects and new learning from this unit, to review options for the structures and materials need to realise construction projects.</p> <p><u>Structure:</u> Unit 3 Mock, pupils to generate a report on environmental concerns, eco-friendly materials, energy efficient processes and recycling procedures in the home.</p>

	<ul style="list-style-type: none"> • Ability to conduct primarily research • Understand how to use product analysis • Ability to use 2D Design • Demonstrate basic hand tool skills • Ability to use a range of machines • Ability to follow H/S rules and procedures within a practical classroom • To work to a deadline 	<ul style="list-style-type: none"> • Understand the importance of H/S in a practical environment • Ability to choose machines based on what why want to perform • Ability to mark and measure a lap joint out • Demonstrate hand tool skills • Ability to make a lap joint • Ability to use a range of machines safely and skilfully • Ability to add an inlay to wood • Can apply wax with skill to create a high quality finish • Ability to follow H/S rules and procedures within a practical classroom • Ability to work to a deadline 	<p>what why want to perform</p> <ul style="list-style-type: none"> • Ability to conduct primarily research • Understand how to use product analysis • Ability to use 2D Design • Demonstrate basic hand tool skills • Demonstrate soldering skills • Ability to use a range of machines • Ability to follow H/S rules and procedures within a practical classroom • To work to a deadline 	<p>considerations for construction projects</p> <p>Understand how infrastructure influences design</p> <p>AC2.1 interpret maps</p> <p>AC2.2 describe how utilities are distributed to the built environment</p> <p>AC2.3 explain how infrastructure affects design</p> <p>Be able to report on potential of built environment projects</p> <p>AC3.1 use language appropriate to purpose and audience</p> <p>AC3.2 structure reports</p> <p>AC3.3 present supporting Information</p>	<p><u>Knowledge and skills assessed:</u></p> <p>Understand structures of Buildings</p> <p>AC1.1 describe functions of building elements</p> <p>AC1.2 explain how external factors affect structures</p> <p>AC1.3 assess suitability of structural forms of buildings</p> <p>Understand how properties of materials affect their use in buildings</p> <p>AC2.1 describe properties of Materials</p> <p>AC2.2 explain how properties of materials can be changed</p> <p>AC2.3 explain how materials affect economics of buildings</p> <p>Understand how buildings can be sustainable</p> <p>AC3.1 explain how forms of energy impact on design</p> <p>AC3.2 describe sustainable materials used in constructing buildings</p> <p>AC3.3 describe how materials used in constructing buildings can be sourced sustainably</p> <p>AC3.4 explain how use of buildings can be made sustainable</p>
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6	<p>Focus: 2D Design CAD/CAM</p> <p>Structure: Mixture of design and practical skilled tasks</p> <p>Knowledge and skills assessed:</p> <ul style="list-style-type: none"> • Understand the basic design process • Show skill in using 2D Design is used. • Understand CAD/CAM and its importance in design technology • Understand how infrastructure influences design • Structure reports • Design to a set specification • Understand user requirements • Ability to design to scale • Understand different materials used in the building profession. • Demonstrate the ability to design in different styles to suit client 	<p>Focus: Google Sketch up-CAD/CAM</p> <p>Structure: Mixture of design and practical skilled tasks</p> <p>Knowledge and skills assessed:</p> <ul style="list-style-type: none"> • Understand the basic design process • Show skill in using google sketch up • Understand CAD/CAM and its importance in design technology • Understand how infrastructure influences design • Structure reports • Design to a set specification • Understand user requirements • Ability to design to scale • Understand different materials used in the building profession. • Demonstrate the ability to design in different styles to suit client 	<p>Focus: Google Sketch up-CAD/CAM</p> <p>Structure: Mixture of design and practical skilled tasks</p> <p>Knowledge and skills assessed:</p> <ul style="list-style-type: none"> • Understand the basic design process • Show skill in using google sketch up • Understand CAD/CAM and its importance in design technology • Understand how infrastructure influences design • Structure reports • Design to a set specification • Understand user requirements • Ability to design to scale • Understand different materials used in the building profession. • Demonstrate the ability to design in different styles to suit client 	<p>Focus: Unit 2 - Drawing construction plans</p> <p>Structure: Produce a range of hand drawn constructional designs to detailed design criteria.</p> <p>Knowledge and skills assessed:</p> <p>Be able to use mathematical techniques for construction designs</p> <p>AC1.1 identify information requirements for construction designs</p> <p>AC1.2 calculate information required for construction designs</p> <p>LO2 be able to draw construction designs</p> <p>AC2.1 draw plans</p> <p>AC2.2 draw elevations</p> <p>AC2.3 use language of drafting</p>	Year 11 gone
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