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	**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. **Structure:** **30-minute written paper**: Containing a range of multiple choice knowledge questions and extended response questions on knowledge application and skills **Knowledge and skills assessed:** • 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	**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. **Structure:** **30-minute written paper**: Containing a range of multiple choice knowledge questions and extended response questions on knowledge application and skills **Knowledge and skills assessed:** • 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	**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. **Structure:** **30-minute written paper**: Containing a range of multiple choice knowledge questions and extended response questions on knowledge application and skills **Knowledge and skills assessed:** • 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	**Focus: 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. **Structure:** **Google Sketch up design challenge,** pupils to work to a detailed design specification and produce a detailed 3D drawing using Sketch up. **Knowledge and skills assessed:** Be able to use computer software for on screen 3D modelling of construction designs AC3.1 draw 2D plans of construction Designs AC3.2 draw 3D plans of construction Designs AC3.3 add features to 3D plans of	**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. **Structure:** Unit 2 Mock – Detached house extension, Direct links to the Full mark scheme. **Knowledge and skills assessed:** Be able to use mathematical techniques for construction designs AC1.1 identify information requirements for construction designs AC1.2 calculate information required for construction designs Be able to draw construction designs AC2.1 draw plans

	• Demonstrate an understanding basic hand tool skills • Ability to demonstrate how to follow H/S rules and procedures within a practical classroom	• Demonstrate an understanding basic hand tool skills • Ability to demonstrate how to follow H/S rules and procedures within a practical classroom	• Demonstrate an understanding basic hand tool skills • Ability to demonstrate how to follow H/S rules and procedures within a practical classroom	construction designs	AC2.2 draw elevations AC2.3 use language of drafting
4	**<u>Focus:</u> Key ring project** **<u>Structure:</u>** Mixture of design and practical skilled tasks **<u>Knowledge and skills assessed:</u>** • 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	**<u>Focus:</u> Personised picture frame** **<u>Structure:</u>** Mixture of design and practical skilled tasks **<u>Knowledge and skills assessed:</u>** • 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	**<u>Focus:</u> Inlay timber box** **<u>Structure:</u>** Mixture of design and practical skilled tasks **<u>Knowledge and skills assessed:</u>** • 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	**<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. **<u>Structure:</u>** Unit 1 mock riverside development. **<u>Knowledge and skills assessed:</u>** **Understand planning requirements for construction projects** AC1.1 outline protection given to designated areas AC1.2 describe the planning process for construction projects AC1.3 explain planning consent	**<u>Focus:</u> Unit 3 - Building structures and materials.** 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. **<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.

	• 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	• 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	what why want to perform • 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	considerations for construction projects **Understand how infrastructure influences design** AC2.1 interpret maps AC2.2 describe how utilities are distributed to the built environment AC2.3 explain how infrastructure affects design **Be able to report on potential of built environment projects** AC3.1 use language appropriate to purpose and audience AC3.2 structure reports AC3.3 present supporting Information	**<u>Knowledge and skills assessed:</u>** **Understand structures of Buildings** AC1.1 describe functions of building elements AC1.2 explain how external factors affect structures AC1.3 assess suitability of structural forms of buildings **Understand how properties of materials affect their use in buildings** AC2.1 describe properties of Materials AC2.2 explain how properties of materials can be changed AC2.3 explain how materials affect economics of buildings **Understand how buildings can be sustainable** AC3.1 explain how forms of energy impact on design AC3.2 describe sustainable materials used in constructing buildings AC3.3 describe how materials used in constructing buildings can be sourced sustainably AC3.4 explain how use of buildings can be made sustainable

6	**Focus:** **2D Design CAD/CAM** **Structure:** Mixture of design and practical skilled tasks **Knowledge and skills assessed:** • 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	**Focus:** **Google Sketch up-CAD/CAM** **Structure:** Mixture of design and practical skilled tasks **Knowledge and skills assessed:** • 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	**Focus:** **Google Sketch up-CAD/CAM** **Structure:** Mixture of design and practical skilled tasks **Knowledge and skills assessed:** • 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	**Focus:** **Unit 2 - Drawing construction plans** **Structure:** Produce a range of hand drawn constructional designs to detailed design criteria. **Knowledge and skills assessed:** Be able to use mathematical techniques for construction designs AC1.1 identify information requirements for construction designs **AC1.2** calculate **information** required for construction designs LO2 be able to draw construction designs AC2.1 draw plans AC2.2 draw elevations AC2.3 use language of drafting	Year 11 gone

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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 am 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	**Unit 1 - Planning potential of construction projects**, pupils will learn key content from this unit and learn how to produce Elevations, floorplan and block plan drawings. They will also learn how to use google sketch up and Revit, both 3D drawing software packages.	**Unit 1 - Planning potential of construction projects** Pupils will then look at how to answer the feasibility report using the knowledge last term. Mock exams will be completed. **Unit 1 EXAM IN MAY –** pupils will sit a 6 hour exam, which is externally marked	**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. They will also further develop their hand drawn skills adding Cross sectional drawing to their skill set.	Pupils will have all key content delivered before completing tasks relating to a skill. Pupils will then complete timed Mocks in preparation for real controlled assessment tasks. Assignment available each academic year and must be opened after May 1st each year and is a 6 hour timed, supervised assessment WJEC will produce a mark scheme which will be used as the basis for marking the external assessment. Graded Level 1 Pass, Level 2 Pass, Level 2 Merit and Level 2 Distinction Supervision and timing of externally assessed units must be fully documented in accordance with WJEC requirements.	**Links to DT club, maths and CAD club**
Year 11	**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. All pupils will complete a 8 hour controlled assessment.	**Unit 3 - Building structures and materials.** 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 project. This is measured using controlled assessment task **Unit 1 – Resits** Pupils have the chance to re-sit Unit 1 Exam if they feel they can improve on their Y10 grade.		**Links to DT club, maths and CAD club**

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