

**Curriculum Area: Design and Technology Timbers (CNE)**

**Exam board: EDEXCEL**

**Course title: Edexcel 9-1 Design and Technology**

**Specification link: <https://qualifications.pearson.com/en/qualifications/edexcel-gcses/design-and-technology-2017.html>**

### Part 1: Content covered so far in the course

Units or topics covered up until March 08 2021:  NB: * indicates content covered during period of school closure	Approximate dates of coverage (mm/yyyy)	How was learning assessed for this unit or topic? Include duration of assessment.	Was the assessment carried out in controlled conditions?
Speaker/Amplifier project; existing products, client needs, material properties, specifications, tools and equipment, 2D and 3D drawing	Sept-Oct 2019	Teacher assessed	No
Speaker/Amplifier project; developing and testing ideas, modelling prototypes, circuit board development, manufacturing processes	Nov-Dec 2019	Teacher assessed	No
Handheld game project: existing products, client needs, product specifications	Jan- Feb 2020	Teacher assessed	No
CAD/CAM: TinkerCAD, 2D design	Feb – March 2020	Teacher assessed	No
*CAD/CAM: TinkerCAD, advantages and disadvantages, designing a product, industrial settings	April-May 2020	Teacher assessed	No
NEA coursework - investigation *NEA coursework - development	June 2020 – March 2021	NEA	Yes - when completing NEA in school

## Part 2: Mock Exam evidence

### Units or topics covered in the November mock exam(s)

#### **Section A, Core Content**

- Properties of materials; cedar wood, cast iron, polyester, solid white board
- Mathematical question; calculating percentages
- Negative effects of decreasing manufacture of items
- Isometric drawings
- Properties of calico fabric
- Drawing accurate nets
- Properties of acrylic and stainless steel
- New and emerging technologies being used to reduce carbon footprint
- New and emerging technologies and their impact on apprenticeships in the workforce
- Electronic component diagrams and symbols
- Electronic programmable component flowcharts e.g. decision outputs
- Bar chart graphs and analysing data from them
- Design strategies to generate initial design ideas e.g. team collaboration, analysing existing products etc.

#### **Section B: Timbers specialist theory questions**

- Using a Specification when designing
- Sketching Design idea
- Using notes to explain the details of a design
- Evaluation of a product
- The benefits of sustainable timber
- Joining timber using screws
- Properties of different timbers
- Batch production techniques
- Surface treatments
- Stock materials – the advantages
- Calculations
- Working properties beech
- Working properties of pine
- Genetical engineering of timber
- Social footprint – trend forecasting, impact on communities, ease and difficulty of recycling and disposal

### Part 3: Content that will be assessed by 01 April 2021

**NB: all subjects should complete at least one assessment by this date. If NEAs are currently being completed in subjects that contain coursework components, then work on these should cease by 01 April 2021 in line with existing long-term plans.**

Units or topics that will be assessed	Number of lessons that will be allocated to preparation for this assessment	Duration of assessment
NEA Understanding how to create a detailed specification	1	No timed assessments.  Students will use one lesson to complete one NEA page/topic.
NEA Understanding and analysis of the client's needs	1	
NEA Analysis of existing products	1	
NEA Create a variety of idea using a range of technical communication skills	1	
NEA Create a range of developed designs in response to the specification	1	
NEA Review Design Ideas and create a final concept	1	