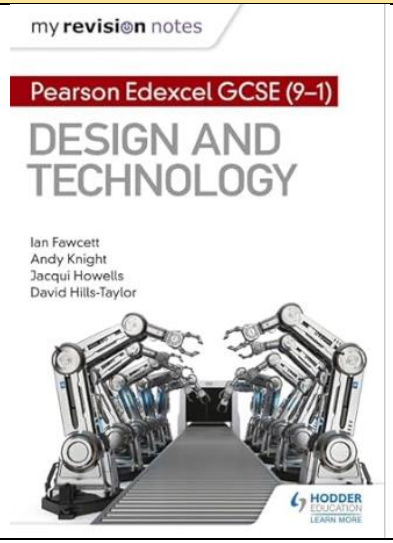
Exam Board	Recommended revision guide	Support available in school
Pearson Edexcel		Mon – Thurs lunchtimes Speak to miss about afterschool support

Resistant Materials

Revision Schedule 2024

Useful online resources	Exam date(s)
https://www.dtteacher.org/gcse-nea - NEA support https://senecalearning.com/en-GB/ - Seneca revision https://revisionworld.com/gcse-revision/design-technology/gcse-design-and-technology-past-papers-0/edexcel-gcse-design-and-technology-past-papers - Past papers https://www.bbc.co.uk/bitesize/examspecs/zb6h92p - Core content, materials and NEA information.	Tues 18th June – morning (1hr45)

January					
Week beginning…	**Topic**	**Content to revise**	**Complete (tick)**	**Knowledge test score**	**Weeks left**
Monday 8th	1.1 The impact of new and emerging technology	Industry (1.11), Enterprise (1.12), Sustainability (1.13), People (1.14), Culture (1.15), Society (1.16), Production techniques (1.17 & 1.18).			18
Monday 15th	1.2 Evaluation of New and Emerging Technology	• Critical evaluation of new and emerging technologies (1.21) e.g. budget, time scale, materials, etc. • How they can be used in contemporary and potential future scenarios – e.g. natural and medical disasters, travel, etc. • Ethics – where it was made and who by? Fair trade? • Environment – Carbon footprint, life cycle analysis (LCA), transportation.			17
Monday 22nd	1.3 Energy Generation, Storage and Sources	• Non-renewable sources, advantages and disadvantages • Renewable sources, advantages and disadvantages (1.31) • Powering systems – examples, advantages and disadvantages (1.32)			16
Monday 29th	1.4 Smart and Composite Materials, and Technical Textiles	Examples, advantages and disadvantages of the following: • Modern and smart materials • Composite materials • Technical Textiles			15
February					
Monday 5th	1.5 Mechanical Devices	• Types of movement (1.51) • Classification of levers and calculating mechanical advantage (1.52a) • Linkages (1.52b) • Cams and followers (1.53) • Pulleys and belts (1.54) • Cranks and sliders • Gears and calculations (1.5a & 1.5b)			14
Monday 12th	1.6 Electronic Systems	The role, applications, advantages and disadvantages of the following: • Sensors – LDRs and thermistors. • Control devices – switches, transistors and resistors. (1.61) • Outputs – Buzzers and LEDs. (1.62)			13

Monday 19th	1.7 Programmable Components	• Using flowcharts. • Switching outputs on and off. • Processing analogue inputs. • Simple routines to control outputs – delays, loops and counts. (1.7)			12
Monday 20th	1.8 Ferrous and Non-Ferrous Metals	You must know about each of the following: • What is a ferrous metal and examples. • What is a non-ferrous metal and examples. • Properties of the above and their meanings. (1.8)			11
March					
Monday 4th	1.9 Papers and Boards	You must know about each of the following: • Papers and examples. • Boards and examples. • Properties of the above and their meanings. (1.9)			10
Monday 11th	7.1 Design Context 7.2 Sources of Timber **Origins (7.24)**	When designing or modifying a product, you should have knowledge of timbers, where they come from and why materials have changed overtime. Geographical origin of softwoods and hardwoods, with examples from the following: • Cold climates (Alpine) • Temperate climates (European) • Tropical Rainforests (Amazonian)			9
Monday 18th	7.2 Sources of Timber **Hardwoods (7.21)**	Where hardwoods come from Knowledge of at least 3 hardwoods Advantages, disadvantages and properties.			8
Monday 25th	7.2 Sources of Timber **Softwoods (7.22)**	Where softwoods come from Knowledge of at least 3 softwoods Advantages, disadvantages and properties.			7
April					
Monday 1st	7.2 Sources of Timber **Manufactured (7.23)**	What is manufactured board? Knowledge of at least 2 manufactured boards Advantages, disadvantages and properties.			6

Monday 8th	7.2 Sources of Timber **Characteristics (7.25)** **Working Properties (7.26)**	Knowledge of: • Knots • Colour • Grain Structure • Density Definitions of: • Hardness • Toughness • Durability • Elasticity • Tensile Strength • Compressive Strength			5
Monday 15th	7.2 Sources of Timber **Social Footprint (7.27)** **Ecological Footprint (7.28)**	Definitions and examples of: • Trend forecasting. • The impact of logging on communities. • Recycling and disposal Define what ecological footprint is. Definitions and examples of the following: • Sustainability • Deforestation • Habitat destruction and loss • Processing • Transportation • Wastage • Pollution			4
Monday 22nd	7.3 Selection of Timbers **Aesthetic Factors (7.31)** **Environmental Factors (7.32)** **Availability Factors (7.33)**	• Knowledge of the 3 aesthetic factors affecting product design. • Environmental factors – Sustainability, Genetic engineering, Seasoning and Upcycling • Availability Factors – Stock Materials, Specialist Materials and Hurricanes, Storms and Disease.			3
Monday 29th	7.3 Selection of Timbers **Cost Factors (7.34)** **Social Factors (7.35)** **Cultural/Ethical Factors (7.36)**	• Cost Factors – Quality of material, Manufacturing processes and Treatments. • Social Factors – Social groups, Trends and Popularity. • Cultural/Ethical Factors – Avoiding Offence, Suitability for the market, Consumer society, Mass production, Built-in obsolescence.			2

May					
Monday 6th	7.4 Strengthening Timber	Knowledge of: • Forces and Stresses – Compression, tension, shear, natural forces and pre-stressed construction beams. • Reinforcement Techniques – Frame structures, fabrication/assembly, lamination, braces/tie bars and embedding composite materials.			1
Monday 13th	7.5 Stock forms and Sizes	Stock Forms – Regular sections, Mouldings, Dowels and Sheets Sizes – PAR, PSE, Cross-sectional Area, Diameter and Board Sizes.			0
Monday 20th	7.6 Manufacturing Processes **Cutting and Shaping Material (7.61)** **Scale of Production (7.62)**	Definitions, advantages and disadvantages			0
Monday 27th	7.6 Manufacturing Processes **Techniques for quantity production (7.63)**				0
June					
Monday 3rd	7.7 Equipment and Processes Used to Make Prototypes				0
Monday 10th					0
Monday 17th		Week of the exam!			0