ROUNDWOOD PARK
DESIGN TECHNOLOGY

YEAR 13

Analysis of: Materials, components, process and their selection and uses in products and/or systems.

Applying knowledge in: Designing and manufacturing prototypes and products to given situations and problems

PRINCIPLES OF PRODUCT DESIGN EXAM REVISION

Boundaries and specifics: Establishing boundaries in: function, ergonomics, biomechanics, anthropometrics

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PROBLEM SOLVING IN PRODUCT DESIGN EXAM REVISION

Testing: First-hand research, testing, experimenting, and disassembly of existing products.

NEA COURSEWORK

Stakeholders: Do you know the needs and wants of the primary users and stakeholders? Can you identify a broad and thorough range of product requirements?

Investigate the stakeholders: Can you demonstrate an understanding of the broader range of stakeholders that have an interest in the design problem and product solution?

LONDON DESIGN TALKS

Investigate the design possibilities: What is the design context? What areas require further exploration?

NEA: NEA coursework preparation

Disassembly: What are the benefits of product disassembly?

Contexts: What can be learnt by exploring wider contexts?

Stakeholders: What can be learnt from a stakeholder analysis?

IDENTIFYING REQUIREMENTS

Existing Products Why is it important to understand technological developments?

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LEARNING FROM EXISTING PRODUCTS

Product Manufacture: What needs to be considered?

IMPLICATIONS OF WIDER ISSUES

LONDON DESIGN TALKS

PROFESSIONAL SPEAKERS

BSI VISIT

YEAR 12

AO3: Evaluate & Test: Gain feedback throughout your project, and test your final product.

AO2: Realise Design ideas: Manufacture your product using skills and processes used throughout your DT journey.

AO2: Generate & Develop Design Ideas: Develop your sketches and communicate ideas. Developing them using modelling techniques

PRINCIPLES OF DESIGN AND TECHNOLOGY EXAM REVISION

AO1: Specification & Brief: Clarify the needs and wants of the project writing your own brief & specification

NEA COURSEWORK

AO1:Research & investigation Follow on from your summer task to further understand the context. Client interviews, product, site analysis and designer research.

Initial Concept Sketches: What ideas do you have already? Can you visualize them?

Investigate the design possibilities: What is the design context? What research can you carry out to gather ideas?.

KS5

FACILITATED INDEPENDANCE

YEAR 11

Design: Designing for children. How do we make a product fun, educational and safe?

IDENTIFYING USER REQUIREMENTS

DESIGN VENTURA

MBA

Materials / Make: Exploring contexts that you are unfamiliar with. Understanding the design situation.

EXPLORING GCSE NEA CONTEXTS

PROFESSIONAL SPEAKERS

BSI VISIT

Design: Finding ways to reduce the demand for finite resources

After choosing options in year 8, focus your studies in GCSE DT in years 9 - 11, through exciting, real life projects. Deepen your understanding of DT in the world around us whilst developing products that help various needs and users.

YEAR 10

Make: Can you make an accurate product using craft knives and cutting tools independently?

Make: Use a wide range of skills to develop your unique product.

Materials: The science of materials. How does it work?

Design: Usability for everyone – safety, ease and dignity.

MECHNICAL ENGINEERING BRANDING AND MERCHANDISING

INCLUSIVE DESIGN

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Make: Products that promote sustainability.

SUSTAINABLE LIVING

KS4

GUIDED SUPPORT

Work in more depth on projects, honing your practical skills, improving your resilience & problem solving whilst developing independence in the workshop.

YEAR 9

Make: Can you make an accurate product using machines independently?

Design: Isometric projection, CAD development

Materials: Exploring materials to visually represent data and information

Materials: The properties of different materials and how air flows around them

Forces: How can we study the motion of air?

INFO-GRAPHICS AND 3D PRINTING

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AERO-DYNAMICS AND AERO-NAUTICS

Experience a wide range of fun and exciting projects that teach you valuable skills in the workshop, understanding different materials and how they work.

YEAR 8

Materials: Where do different materials come from and how can they be used?

Design: CAD What is computer aided design? Learn to use the basics of 2D software to design products

Design: Designing with restrictions Orthographic Projection & Rendering

Baseline Assessment: What do you already know about DT?

Introduction to the workshop: Health and Safety

Make: Wood joints Use of hand tools and machines

INTRODUCTION TO DRAWING SKILLS

INTRODUCTION TO D&T

YEAR 7

Evaluate: How can you improve your skills?

KS3

DIRECT INSTRUCTION