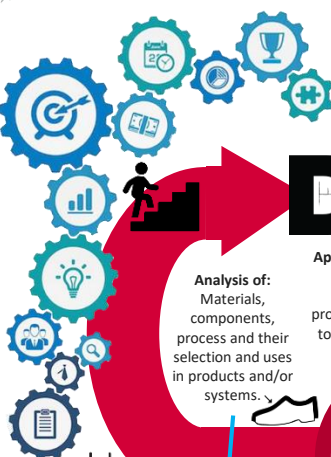


ROUNDWOOD PARK DESIGN TECHNOLOGY



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

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

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

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?

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

Contexts: What can be learnt by exploring wider contexts?

Stakeholders: What can be learnt from a stakeholder analysis?

Existing Products: Why is it important to understand technological developments?

Product Manufacture: What needs to be considered?

PRINCIPLES OF PRODUCT DESIGN EXAM REVISION (ROTARY TOURNAMENT)

PROBLEM SOLVING IN PRODUCT DESIGN EXAM REVISION (ROTARY TOURNAMENT)

NEA COURSEWORK (LONDON DESIGN TALKS)

YEAR 13

IDENTIFYING REQUIREMENTS (ROTARY TOURNAMENT)

LEARNING FROM EXISTING PRODUCTS (ROTARY TOURNAMENT)

IMPLICATIONS OF WIDER ISSUES (LONDON DESIGN TALKS)

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.

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

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?

Disassembly: What are the benefits of product disassembly?

PRINCIPLES OF DESIGN AND TECHNOLOGY EXAM REVISION (BSI VISIT)

NEA COURSEWORK (MBA)

YEAR 11

IDENTIFYING USER REQUIREMENTS (DESIGN VENTURA)

EXPLORING GCSE NEA CONTEXTS (MBA)

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

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

MECHANICAL ENGINEERING BRANDING AND MERCHANDISING (ROTARY TOURNAMENT)

INCLUSIVE DESIGN (ROTARY TOURNAMENT)

SUSTAINABLE LIVING (ROTARY TOURNAMENT)

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.

Make: Products that promote sustainability.

Design: Finding ways to reduce the demand for finite resources

INFO-GRAPHICS AND 3D PRINTING (ROTARY TOURNAMENT)

AERO-DYNAMICS AND AERO-NAUTICS (ROTARY TOURNAMENT)

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?

INTRODUCTION TO DRAWING SKILLS (ROTARY TOURNAMENT)

INTRODUCTION TO D&T (ROTARY TOURNAMENT)

YEAR 8

Make: Wood joints Use of hand tools and machines

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

YEAR 7

Evaluate: How can you improve your skills?

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.

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

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

KS3
DIRECT INSTRUCTION

KS5
FACILITATED INDEPENDANCE

KS4
GUIDED SUPPORT