Product Design

Curriculum Intent: To demonstrate their knowledge, understanding and skills through interrelated iterative processes that 'explore' needs, 'create' solutions and 'evaluate' how well the needs have been met.

Core knowledge:

- I. Identifying requirements
- 2. Learning from existing products and practice
- 3. Implications of wider issues
- 4. Design thinking and communication
- 5. Material considerations
- 6. Technical understanding
- 7. Manufacturing processes and techniques
- 8. Viability of design solutions
- 9. Health and safety.

Procedural knowledge (how to...):

Core knowledge is delivered through students completing booklets for one lesson per week.

The learning of the skills required for the course will be taught through two projects -

A new **architectural project** tasks students with analysing and redesigning a problematic area of their school. Through sketches and models, they propose creative solutions to improve functionality and aesthetics. It fosters critical thinking, problem-solving, sketching, model making and empowers students to shape their school environment into a more inspiring space.

Secret Storage project, students tackle the challenge of theft prevention by designing a product that incorporates secret storage compartments. Through the use of timbers, polymers, and metals, they develop innovative solutions that merge security with functional design, showcasing their creativity and problem-solving skills.

Assessment:

Verbal and informal formative feedback Weekly quizzes on core content Summative levels for each project Assessed and graded exams at assessment weeks.

Homework:

Additional mastery of the specialism concepts. Later, NEA work each week

Links to careers and personal development include:

By pursuing Product Design, A-Level, you open up a world of diverse career opportunities in the realm of design and innovation. Potential paths include becoming a Product Designer, where you collaborate with companies to create and develop new products with a focus on functionality and aesthetics. Industrial Design offers a

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Procedural knowledge (how to...):

Completing a NEA (coursework) project from June 1^{st} Y12 until March Y13

A thorough exam preparation course between March and summer of Y13 including past paper questions, exam techniques and revision.

Assessment:

Weekly assessment of NEA (not shared with students) Assessed and graded exams at assessment weeks. Assessed past paper questions

Homework:

NEA work each week. Revision

Links to careers and personal development include:

By pursuing Product Design, A-Level, you open up a world of diverse career opportunities in the realm of design and innovation. Potential paths include becoming a Product Designer, where you collaborate with companies to create and develop new products with a focus on functionality and aesthetics. Industrial Design offers a specialization in improving the visual and ergonomic aspects of products, working alongside engineers and manufacturers. Alternatively, you can venture into Furniture Design, Packaging Design, UX Design, Design Engineering, or Design Research. Additionally, the skills gained from this A-Level can empower you to start your own design-focused business or offer consultancy services. Exploring internships and further education can further enrich your career prospects.

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