BRANNEL SCHOOL
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Curriculum Summary Document

Year 7 – Design & Technology

Introduction to Designing, Making and Workshop Skills

Module/Unit of Learning	Taught During	What will students learn?	How does this help to build a broad and strong foundation?	Links to other Subjects
Pewter Casting Project	September – December	Students begin by developing fundamental drawing and communication skills, including 1-point and 2-point perspective. They explore the project brief through a mind map and analyse existing products to understand purpose and function. Students learn how pewter casting works through demonstrations, before designing and producing their own mould. They are introduced to workshop routines and safety, and practise key making skills during the production of a pewter key fob. Students evaluate their finished product and suggest improvements.	This module introduces the core principles of design, modelling, and workshop practice. Students develop confidence in communicating ideas visually and learn safe use of tools and equipment. They experience the full design cycle—from initial ideas to evaluation—preparing them for increasingly independent project work in later years.	Art – drawing techniques and visual communication Science – states of matter and heating metals Maths – measurement, scale and shape
Product Improvement Project	January – March	Students evaluate their original pewter product and identify areas for improvement. They refine their designs and strengthen their practical skills through a second round of making. Accuracy, finishing techniques and attention to detail are emphasised. Students continue to develop their understanding of materials, tools, and effective workshop behaviour.	By revisiting and improving their initial work, students develop resilience and an understanding of iteration in design. They build precision and confidence in using equipment, laying the groundwork for more complex practical tasks in the future.	Art – refining and improving creative outcomes Science – material properties Maths – accuracy and measurement
Box Production & Introduction to CAD (TinkerCAD)	April – July	Students complete a small-scale box production project, learning about marking out, joining techniques, and quality control. Following this, they are introduced to Computer-Aided Design using TinkerCAD. They learn to model simple components in 3D, developing spatial awareness and digital design skills. Students produce their own CAD models and understand how digital design links to manufacturing.	This unit establishes the essential balance between traditional workshop skills and modern digital design. Students gain early exposure to CAD, supporting progression into more advanced modelling software later on. Box production consolidates accuracy, problem-solving and independence.	Computing – 3D modelling and digital environments Maths – dimensions, nets and geometric reasoning Art – visual planning and presentation

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