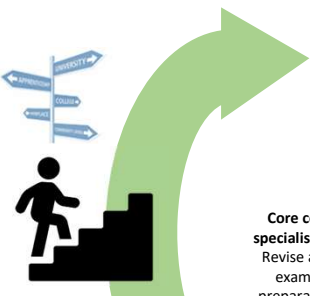


# DESIGN TECHNOLOGY

## St John's Middle School Academy



**Core content and specialist knowledge:** Revise and practice exam papers in preparation for your final exam in DT.

**FINAL GCSE EXAM**

**AO3: Evaluate & Test:** Gain feedback throughout your project, and test your final product – have you met your brief?



**EXAM REVISION**

**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



**NEA COURSEWORK**

**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.



**YEAR 11**

**YEAR 10**

**YEAR 9**

**High school**

**Design:** Reference key design requirement to develop a stylish functional product.

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



**Research and context**

**Materials / Make:** Use material and joining techniques you have not used before to develop a unique stylized product.

**Design: CAD** What is computer aided design? Learn to use the basics of 2D software to design a product and produce orthographic projection



**Make:** Manufacture of a small wooden box that will keep something safe

**Evaluate:** What skills have you developed? Test your product and consider how you would improve it.



**Booklet – Introduction to the project- Design Brief**



**What's it holding?**

**Evaluate:** Does your product work? Does it reflect Alessi Style?

**YEAR 8**

**Production Methods** What are the 3 manufacturing methods?

**Make:** Use a wide range of skills, materials and processes to develop your unique product.

**Design** Develop your design through iterative processes and modelling, testing & evaluating before making a final product.



**Materials:** Polymers Classification: What is a polymer?



**Product Analysis:** ACCESSFM – Asking Questions and forming answers about products

**Specification** What is a design Specification?



**Booklet – Introduction to the project- Design Brief**

**Research**

Deepen your understanding of DT in the world around us whilst developing products that help various needs and users.

**Evaluate:** At each stage of making, how can you improve your product? Would you change anything?

**Materials:** Working with wood, cutting and finishing techniques.

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



**Testing / Modelling:** Will my product work? What can I do to improve it?



**Evaluate:** What skills have you developed? Test your product and consider how you would improve it.



**Alessi Clock Project**

**YEAR 7**

**KS3**

**Make:** Measure and mark out specific sizes using what tools and equipment?

**Materials:** Wood classification. Where does timber come from?



**Final Design:** Developing Rendering skills



**Annotation:** Using ACCESSFM

**Design:** Designing for a user and client. What is an isometric projection? Develop design ideas using isometric skills



**Booklet – Introduction to the project- Design Brief**



**Shipshape Desk tidy**



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

**Gears** What do Gears do? How do you work out Gear Ratio?



**Cams** What do cams do? How do they work?



**Design & Make**

**Design:** Basic Isometric drawing



**Make:** Using hand tools



**Materials:** Working with wood, cutting and finishing techniques.

**Evaluate:** Does your product work? How can you fix problems?



**YEAR 6**

**Motion** What are the 4 types of motion?



**Motion**

**REFLECTION** What have you learnt so far?



**Linkages** mechanical control systems Reverse Motion, Bell Crank, Parallel Motion, Crank and Slider

**Lever** Classes of lever What is fulcrum, effort and load



**Systems & Control Mechanisms**



**Introduction to the workshop:** Health and Safety



**Booklet – Introduction to the project- Design Brief**



**YEAR 5**

**KS2**

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

