Sexey's School DT KS3 Curriculum Map

Year 7	Year 8	Year 9
Health & Safety, Core Skills, Materials Knowledge	**Health & Safety, Core Skills, Materials Knowledge, sustainability**	**Health & Safety, Core Skills, Materials Knowledge**
• Introduction to DT and workshop safety • Measuring accurately (mm/cm), marking out pine • Wood knowledge • Plastics theory • Electronics basics • Safe use of tools: cutting, sanding, drilling, gluing, soldering **Practical work –** Marking out, cutting, sanding, drilling, gluing, soldering, assembly	• Health & Safety recap • Sustainability and environmental impact • Woods knowledge • Metals theory • Joint-making theory (lap & housing joints) **Practical work –** Wood joints, marking out, cutting, pewter casting	• Health & Safety to include hand held power tools • Plastics theory • Electronics theory • Materials selection for function & aesthetics **Practical work –** Cutting, gluing, sanding, electronics assembly, strip heater bending
Designing, Planning & Communication	**Designing, Planning & Communication**	**Designing, Planning & Communication**
• Theme mindmaps • Specification writing • Designing acrylic section boxes • Evaluating designs against brief/spec • Production planning • Isometric drawing & rendering **Outcome –** Acrylic/wood light with simple electronics	• Project intro & specification • Product analysis • Isometric drawing • Orthographic drawing • Production planning • Evaluation **Outcome –** Wooden Bug Hotel product with accurate joints & pewter cast keyring	• Project intro & design development • Annotation, modelling, labelling • 2D Design for CAM • Brief & specification for second project • Evaluation of both projects **Outcome –** Two functional products, one light combining wood, plastics & electronics
Practical Work & Making Skills	**Practical Work & Making Skills**	**Practical Work & Making Skills**
• Marking out, cutting, sanding • Drilling & gluing • Soldering (multiple lessons) • Rendering & presentation **Final outcome –** Wooden product with acrylic detail	• Lap & housing joints • Marking out & cutting • Pewter casting (design → mould → cast → polish) • Acrylic shaping • Assembly & finishing **Final outcome –** Wooden product with pewter cast charm/insert	• Cutting, gluing, sanding plywood • Electronics assembly (multiple lessons) • Strip heater forming • Drilling & shaping • Assembly of two projects **Final outcome –** Two advanced products demonstrating electronics and combined materials

Co-curricular opportunities and Gatsby (careers) links

Links with other DT subjects discussed, how products are designed with an end user in mind.

We explore the work of James Dyson and other engineers and other designers

Careers clips show a range of roles at work and explains their roles and discuss how technology and AI might change these roles.

Use of grain chain resources in year 8 show product development and food production careers.

Cideos from BBC bitesize used for energy balance discuss the work of sport nutritionists

Cheese production videos used in year 7 link directly with some of the largest employers in the South West

Key stage three link to the Sexeys core values and ethos and spiritual development opportunities

Instilling a love of designing and making enables students to solve real life problems for themselves and others in the future.

Through practical making lessons students can demonstrate courage, resilience, forgiveness, kindness, honesty, respect and empathy.

Empathy- Understanding individuals, groups and clients with specific needs and be able to modify their designs.

Respect personal choice and empathy- when considering moral, ethical, social, religious and cultural and sustainable material choices.

Respect for sustainability, resources and the environmental impact of producing and transporting materials, packaging and recycling.

Courage- using machine tools for the first time, challenging themselves and developing and maintaining a safe working environment.

Honesty- reporting when things do not go to plan, and reflecting critically and honestly when evaluating their work.

Kindness- supporting each other through team work and collaborative tasks, sharing tools.