Longridge High School

Curriculum Intent
Design Technology

1. Vision & Purpose

- The Design & Technology curriculum seeks to inspire creativity, imagination and practical skills. Pupils design, make and evaluate products, learning to apply design thinking, craftsmanship and innovation.
- The curriculum covers KS3 design technology (timbers, textiles, polymers and food technology). This aims to give pupils confidence in solving problems, using tools and materials, and understanding sustainability, aesthetics, function, and safety in design.

2. Ambition for All Learners

- The school ensures that every pupil, regardless of prior experience or background, has access to Design Technology. **All** are encouraged to take part, learn safely, and develop confidence through hands-on, practical work.
- For pupils who excel, there are opportunities for more complex, ambitious work: investigating new materials, advanced construction techniques, higher level design challenges, and preparing for the GCSE or vocational options in DT.

3. Knowledge & Skills Development

- Pupils progressively acquire technical knowledge: properties of different materials (wood, metal, plastics, textiles), tools & equipment, manufacturing techniques, safety in workshop practice.
- Development of design process skills: research, sketching, modelling, prototyping, evaluating; iterative improvement.
- Digital elements wherever applicable: using computer-aided design (CAD), modelling software, possibly digital fabrication tools.
- Understanding of sustainable design, functionality, aesthetic principles, and ethical production where relevant.

4. Sequencing & Progression

- In Key Stage 3, pupils start with foundational knowledge and basic design tasks to build confidence and skill (e.g., design and measurement basics, 3D drawing skills, the use of simple materials, safe tool use).
- As pupils opt for GCSE DT, they encounter more complex projects, design briefs, greater autonomy, more sophisticated techniques and tools (laser cutting and 3D printing) with an increasingly detailed evaluation of their work.

5. Literacy, Oracy & Vocabulary

- Explicit teaching of technical vocabulary (e.g. “material properties”, “tolerance”, “manufacturing processes”, “mechanisms”, “ergonomics”, “cross contamination”, “specification”, “form over function”, “CAD”, “prototype”).
- Pupils encouraged to present and explain their design decisions verbally and in writing: justifying materials, designing steps, evaluating finished products.
- Pupils written work is focused on booklet/project documentation.

6. Enrichment & Cultural Capital

- The school uses local links and competitions to promote the subject beyond the classroom. e.g Lancashire young chef competition.
- The school proudly showcases pupil work (final pieces, exhibitions) to build pride, aspirational goals and visibility of what pupils can achieve.

7. Cross-Curricular Links & Real-World Relevance

- DT naturally dovetails with science (material science, nutrition), Maths (measurement, scale, ratio, geometry), Art & Design (aesthetic, design principles and technical drawing).
- The subject prepares pupils for careers in fields like product design, engineering, architecture, manufacturing, digital fabrication, food industry and creative industries.

8. Safeguarding & Online Safety

- Ensuring safe practice in workshops: tool safety, health and safety, supervision, knowledge of risk assessments.
- When using digital tools (CAD, modelling software, design software) learning about safe usage, as well as online safety when researching projects.
- Ethical and sustainability issues: safe sourcing of materials, sustainable design, environmental impact.

9. Assessment & Impact

- Assessment through both practical and theoretical tasks: project work, design & make tasks, portfolios, design briefs, written evaluations.
- Formative assessment is used to check understanding (design specifications, prototyping, modelling) as well as to identify skills gaps prior to starting most new projects.
- Summative assessments at KS4 will include non-examined assessment as well as a written style examination. These are spread across Yr10 and Yr11.