

# Curriculum Implementation – Design and Technology

## Key Stage 4

### Key Concepts Taught



- New and emerging technologies
- Materials and their working properties
- Energy
- Materials
- Systems
- Devices
- Common Specialist Technical Principals
- Material Specialist Technical Principals
- Designing principals
- Making principals

### How You Receive Feedback



- Self-Assessment
- Peer-Assessment
- Classroom discussions and debates
- Formative and Summative assessments





### How do Lessons Link to Key Concepts



- Demonstrate a high level of comprehension relating to materials and their properties.
- Utilise a wide range of skills including graphical, ideation, investigatory, practical, analytic to solve given contextual challenges and problems.
- Develop and demonstrate empathy through empathetic design and designers' impact on people, culture, society, and the environment.
- Understand and demonstrate good, safe practise when using a wide range of tools and machinery.
- Differentiate between the previous generations of designers and their legacies and justify how their design philosophy links to each of them.
- Effectively communicate design ideas and solutions in a way accessible to as many different individuals as possible.
- Show competency in their ability to use and adapt new and emerging technologies to solve problems relevant to the modern day and age.

### How we get Support with our Lessons



- Scaffolding
- Structured notes
- Design starters
- Higher and lower cognitive questioning





**Retrieval Practice  
Opportunities /  
Supporting Ways  
to Help us  
Remember**



- Create individual knowledge organisers.
- Assessment for Learning questioning.
- Documenting lesson key words and conclusions.
- Open book assessments.

**Opportunities for  
Literacy**



- Students will develop their vocabulary through the introduction and usage of technical phrases.
- Students will make use of annotations to aid in the communication of ideas and sketches.

**Opportunities for  
Numeracy**



- Students will use numeracy to solve a variety of real-life problems such as determining forces, mass, angles, cost, and dimensions.
- Students will use a variety of mathematic formulas and concepts to do this.
- Provides a more accurate application for arithmetic.

**Opportunities for  
Oracy**



- Present and communicate design ideas through verbal and graphical communication lessons.
- Develop confidence in speaking through group presentations and group work.
- Interviewing clients.





### Opportunities for Character Education



- Working with groups and with people in the wider community to solve specific problems, demonstrating teamwork and the ability to display empathy.

### Opportunities for SMSC



- Students will tackle ethical questions surrounding the development of technology and its impact on people, culture and society as well as recognising the impact modern industry has on individuals economic and social footprints.

### Opportunities for Assessing Learning



- Linking learning – what we did last lesson, this lesson and next lesson.
- Plenaries to reflect on learning.
- Quizzes.
- End of unit assessments.

