

| | | | | |
|-----------------------|----------------|-------------------|-------------|---|
| Curriculum Map | Subject | Design Technology | Year | 8 |
|-----------------------|----------------|-------------------|-------------|---|

| Unit | Summary | Skills | Assessment | British Values and SMSC | Career links | Cross-curricular links |
|--------------------------|---|--|-----------------------------------|--|--|--|
| Funky Frame | Introduction to electrical circuits, 2D design, and craftsmanship. | - Elementary theory of electronic components. - 2D design skills. - Circuit building. - Line bending. - Laser cutting. - Quality control methods. - Assembly skills. | Construction of Funky Frame | - Emphasis on workshop safety and responsible tool use. - Fosters problem-solving and critical thinking. - Encourages teamwork and collaboration. - Promotes appreciation for craftsmanship. - Encourages evaluation and reflection on the design process. | - Introduction to electrical engineering. - Exposure to design software (2D design). - Insights into craftsmanship and quality control. - Potential careers in electrical engineering, design, or craftsmanship. | - Integration of electrical concepts. - Utilises design principles in 2D design software. - Application of craftsmanship skills. - Promotes evaluation and reflection skills. - Encourages interdisciplinary connections with English literature (e.g., exploring themes related to light and technology in literature). |
| Passive Amplifier | Mini NEA challenge – Passive Amplifier. Design Problem: Manufacture a sustainable music speaker, which requires no electricity. Investigate problems and what needs to be found out. | Marking out material discussed and demonstrated. Production aids discussed where relevant and examples shown according to material area. Use of production aids where appropriate. Use a range of appropriate tools and equipment to shape, fabricate construct and assemble. | Construction of passive amplifier | Democracy - Collaborative decision-making, Environmental Awareness - Understanding waste management, Mutual Respect - Collaborative work, Tolerance for Different Beliefs - Environmental responsibility | Industrial Designer, Environmental Engineer, Sustainability Specialist, | Art - Perspective drawing techniques, Design Technology - Material properties, ICT - CAD software proficiency |