YEAR 8 2023-2024 Project

'An ambitious curriculum that meets the needs of all'

Medium Term Planning - Topic: Mechanism's project

Curriculum Intent	**In addition to working further on objectives from Year 7, pupils will be taught, following National Curriculum guidelines, the following this term:**
Skills/National Curriculum Links	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. Design Use research and exploration to identify and understand user needs Identify and solve their own design problems and understand how to reformulate problems given to them Develop specifications to inform the design of innovative designs Make Select from and use specialist tools, techniques, processes Select from and use a wider, more complex range of materials, taking into account their properties Evaluate Test, evaluate and refine their ideas Technical knowledge Understand and use the properties of materials and the performance of structural elements to achieve functioning solutions Understand how more advanced mechanical systems used in their products enable changes in movement and force
Spiritual, moral, social, and cultural development	**SMSC: Understanding how to conduct themselves in a classroom environment during a design and practical lesson, keeping themselves and others around them safe.** **PSHE/British Values:** encouraging students to help one another **Skills Builder: Applying theoretical mechanical principles to a product**
Numeracy	**Gear ratios** **Measurements**
Literacy	**Vocabulary: Template, Design, Colour, layout, fulcrum, effort, load, movement**
Becoming future ready	**Careers/Employability: Enable students to develop their practical skills and understand material properties as they become developed and rounded designers.**
Adaptation **QFT/SEND Provision**	Throughout this topic, quality first teaching will provide differentiation: **By product:** Pop up card **By resource:** Use of theory booklets, pop up card examples and templates. Modelling completed by the teacher and student examples shown. **By Intervention**: by providing different levels of supervision and support **By Progressive Questioning:** exploring pupils' understanding through interactive dialogue. **By Grouping:** according to prior attainment, gender, social preference, preferred learning style.

	By Task: Pupils should be involved in the identification of targets which are meaningful to them and in the selection of an appropriate task from the given range. **By Offering Optional Activities:** In class or as homework, to extend learning. This QFT/SEND provision will be explicit within the lesson-by-lesson schemes of work.
Implementation Curriculum Delivery	
Learning Outcomes (Core Knowledge)	To be able to: To introduce mechanisms, levers and linkages in the form of a project
Current learning to be developed in the future within:	Lazy tongues
Assessment	Refer to assessment maps for formative and summative assessment opportunities. Design ideas Practical pop up card
Impact	Attainment and Progress – Refer to assessment results / data review documentation.