



YEAR 10 TERM 1



'An ambitious curriculum that meets the needs of all'

Medium Term Planning - Topic: R039 TA2 - Manual production of engineering drawings

| Curriculum Intent | In addition to working further on objectives from Year 9 , pupils will be taught, following National Curriculum guidelines, the following this term: |
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| Skills/Assessment Objective Links | <p>To be able to:</p> <p>By the end of this week, students will be able to:</p> <ul style="list-style-type: none"> produce a third angle orthographic drawing understand the layout and detail required for an orthographic drawing produce a third angle orthographic drawing, including dimensions, tolerances and other significant information understand the difference between first and third angle projection drawing produce an isometric drawing, including dimensions, tolerances and other significant information identify the layout and format for this type of drawing understand the centre line detail, how it is drawn and where it is positioned on an engineering drawing produce an isometric drawing that can be used to show the layout to assemble the product produce an exploded view drawing, including parts labelling and annotation produce a set of assembly instructions understand why assembly instructions are important for a drawing understand the principles of a sectional view drawing produce a sectional drawing, including the page layout with title block |
| Spiritual, moral, social, and cultural development | <p>SMSC:</p> <p>PSHE/British Values:</p> <p>Skills Builder: Planning for make skills</p> |
| Numeracy | |
| Literacy | <p>Vocabulary Tier 2: See highlighted above</p> <p>Vocabulary Tier 3: See highlighted above</p> <p>Reading:</p> <p>Writing: use of technical tier 3 vocabulary within annotation and design specification</p> <p>Oracy: when questioned pupils are able to use technical subject specific language</p> |
| Becoming future ready | <p>Careers/Employability: manufacturing industry, Product Designer, Engineering sector</p> |
| Adaptation | <p>Throughout this topic, quality first teaching will provide differentiation:</p> |
| QFT/SEND Provision | <p>By product: Use of Hodder Boost resources</p> <p>By resource: Use of exemplar materials from OCR</p> <p>By Intervention: by providing different levels of supervision and support</p> <p>By Progressive Questioning: exploring pupils' understanding through interactive dialogue.</p> <p>By Grouping: according to prior attainment, gender, social preference, preferred learning style.</p> <p>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.</p> <p>By Offering Optional Activities: In class or as homework, to extend learning.</p> <p>This QFT/SEND provision will be explicit within the lesson-by-lesson schemes of work.</p> |
| Implementation Curriculum Delivery | <p>To be able to:</p> <ul style="list-style-type: none"> produce a third angle orthographic drawing |

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| Learning Outcomes (Knowledge) | <ul style="list-style-type: none"> • understand the layout and detail required for an orthographic drawing • produce a third angle orthographic drawing, including dimensions, tolerances and other significant information <p>Red denotes interleaving; aspects of knowledge covered previously in Yr9.</p> |
| Current learning to be developed in the future within: | Skills to be developed – 3 rd Angle Orthographic projection with BSI labelling, Exploded drawing in isometric, cross-sectional drawings |
| Assessment | <p>Formative – quality of engineering drawings and level of skill</p> <p>Summative – Final outcome with measurements and tolerance as well as TA1</p> |
| Impact | Pupils to have knowledge and understanding of how to produce freehand sketches and communicate ideas effectively using specific techniques so that they are able to complete R039 independently. |