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| Year | **9** |
| Topic | **Engineering (1 of 2)** |
| **Lesson**  | **Key aim/title/objective of the lesson?** **These may stretch over a number of lessons as appropriate** |
| 1 | Complete a border |
| 2 | Drawing the letter ‘I’ |
| 3 | Drawing the letter ‘N’ and dimensions |
| 4 | Drawing the letter ‘R’ and dimensions |
| 5 | Test (E & G) |
| 6 | Test (E & G) |
| 7 | Feedback lesson |
| 8 | Drawing in oblique |
| 9 | Drawing in oblique |
| 10 | Drawing in oblique |
| 11 | Test |
| 12 | Test |
| 13 | Feedback lesson |
| 14 | Drawing in isometric |
| 15 | Drawing in isometric |
| 16 | Drawing in isometric |
| 17 | Test |
| 18 | Test |
| 19 | Feedback lesson |
| 20 | Orthographic Plan |
| **Key vocabulary and/or key reading**Parallel Motion, Set Square, Oblique, Isometric, Ellipse, Diameter, Radius, Construction Line, Scale, Imperial, Metric**Numeracy Opportunities** Converting Imperial to Metric, Converting dimension to mm, Measuring and plotting, Radius/Diameters,  |

**How does this topic build on *prior* learning?**

In year 8 Design & Technology pupils do a lot of measuring and marking for their practical work. This builds on the complexities and also demonstrates how to create and read working drawings for when they go into a practical setting

**How does the work during this topic prepare for future learning?**

At Key Stage 4 they will need to create isometric drawings of their designs in both Engineering and Design & Technology. They will also have to create orthographic drawings in Engineering and be able to read both types of drawing for their exam.

At Key Stage 5 they will need to be able to fully understand technical drawings for their practical tasks and design tasks. They will be completing drawings both by hand and using CAD

**How will learning be assessed and feedback provided in this scheme?**

After each style of drawing they will be given a 2 hour test to draw one of 3 drawings varying in difficulty. They will have to use prior knowledge and problem solving skills to complete this. This will then be assessed for accuracy and feedback will be given in groups with more able pupils having to problem solve where weaker pupils have gone wrong and help them improve their drawings

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| **Personal Development** |
| How is this topic developed beyond the classroom? Eg **learning passport?** | * (I don’t know what a learning passport is)
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| How are **Careers/ IAG** links built into this lesson sequence? | * Examples of where technical drawings are used within a wide range of professions.
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| **Relationship Sex and Health Education.** | * Due to lack of equipment, relationship education when it comes to sharing and also when pupils are assisting one another they are building working relationships, teamwork, and communication
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| **Fundamental British Values** (democracy, the rule of law, individual liberty and respect and tolerance) | * We learn about British Standards within the working world and the reasons for this.
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