

Motor Vehicle Studies: Engineering



Unit Outline

Pupils will use different hand tools and equipment to produce a small hand tool.

Manufacture of the tool will be copied from a CAD drawing and must be completed within a tolerance of 1 millimetre.

They will also learn about different materials, including metals and plastics, and where they used to build cars.



Essential skills to consolidate.

To work safely in all we do.

Marking out from a CAD drawing using steel rule, engineers square and scribes Using hand tools and such as hack saws and files to make a tool from low carbon steel.

Workplace cleanliness and tidiness.

Extra skills to stretch.

Work within more accurate tolerances.

Dress and paint or polish their finished tool.

Tools and equipment that you will use within this unit





Measuring devices



Key vocabulary to consolidate.

Safety Marking

Produce

Quality

Ferrous

Key vocabulary to stretch.

Manufacture Caliper Thermosetting Calculate

Assessment

Pupils will be assessed on the finished product and its compliance with the agreed tolerances and on their knowledge of different materials and their properties. Observation of pupil ability will be tracked to evaluate their progression.

Progression

This unit will provide suitable scaffolding of skills for future vocational curriculum. The work in this unit will support the pupils' maths and English progression. Practicing skills such as measuring, cutting, and filing will support patience and perseverance, supporting their learning elsewhere. Pupils will have gained hand coordination skills which are transferable to any industry.

