

# Three-dimensional Design

## Resistant Materials: Year 12

### Bridging Work Part 1 - Google Sketch Up

#### Learning Objectives

**01** To develop confidence using Google SketchUp tools to create accurate 3D models of chairs, including drawing, extruding, grouping, and modifying forms.

**02** To generate three distinct design ideas in SketchUp that explore different forms, functions, materials, or construction methods for the chosen project.

**03** To refine and improve CAD modelling skills by applying feedback, experimenting with design changes, and producing increasingly detailed and realistic design proposals.

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Key Terms  
Accuracy, Extruding,  
Construction

# Google Sketchup

Using Google SketchUp, create **three different design ideas** for chairs. Each design should be modelled accurately in 3D and demonstrate your growing confidence with the software.

As you work, aim to develop your skills by using a range of SketchUp tools such as **Line, Rectangle, Circle, Push/Pull, Move, Rotate, Offset, Group, and Materials**. Experiment with different forms, proportions, features, and construction methods to create a variety of possible solutions.

For each design idea:

- Produce a clear and well-constructed 3D model of a chair.
- Explore different design directions rather than making only minor changes.
- Apply materials, colours, or textures where appropriate.
- Add annotations or screenshots explaining key features and design decisions.
- Identify strengths and areas for improvement.
- Base the designs on your chosen designer.

Use YouTube tutorials to help develop your skills and learn new techniques.

Present your work on a slide.

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