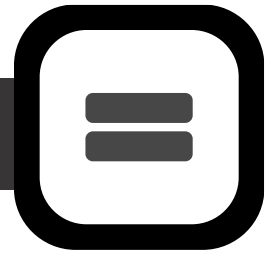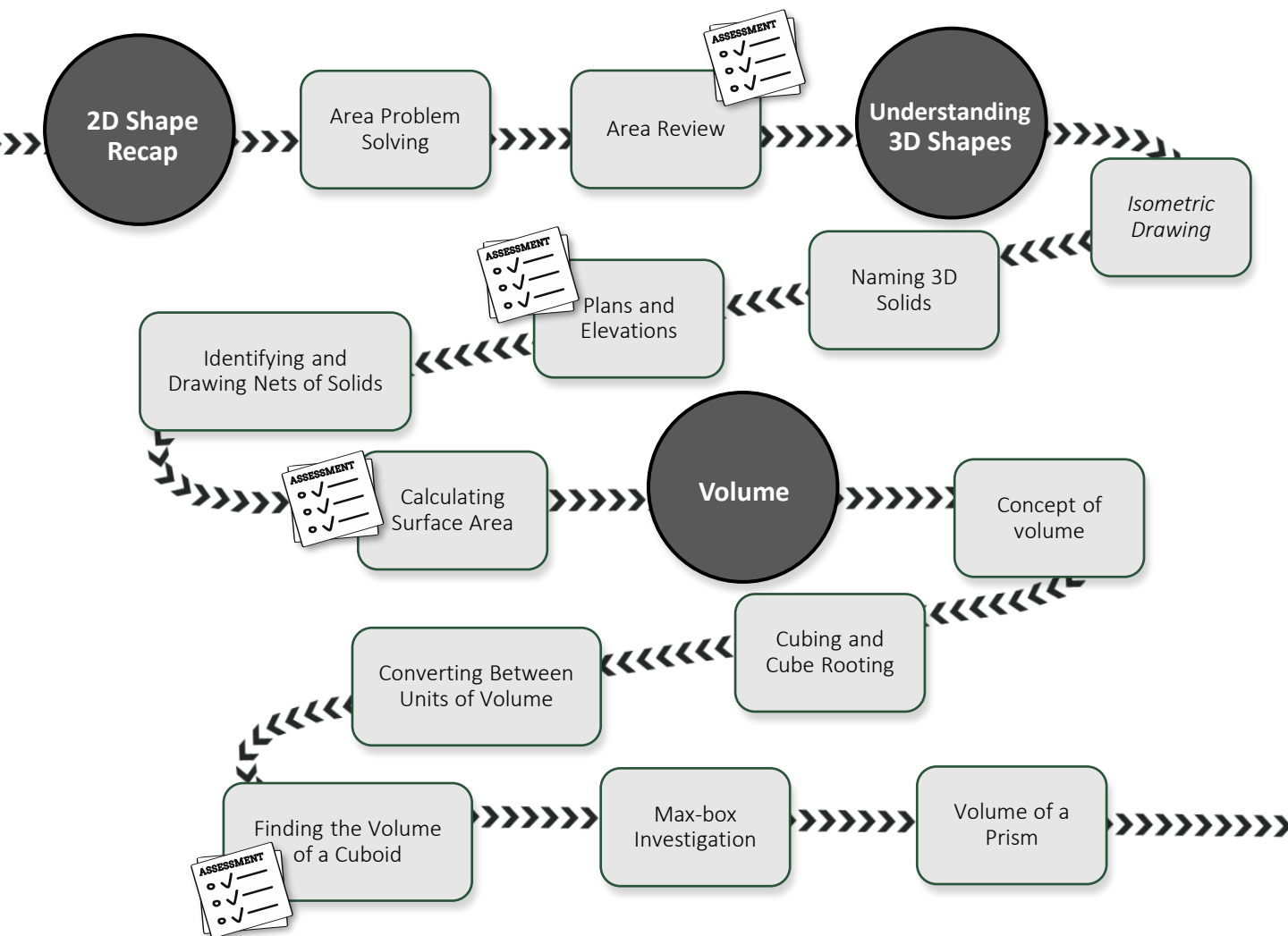# LEARNING JOURNEY | MATHS

Geometry: 3D Shapes

Year 8 Summer Half Term 1

The study of 3D shapes, also known as solid geometry, is essential for mathematicians as it is a fundamental part of geometry. It involves the understanding of various geometric objects such as cubes, spheres, pyramids, and prisms. Solid geometry provides a basis for understanding the properties of objects in our physical world, including architecture, engineering, and even art. By studying 3D shapes, mathematicians can analyse and solve real-world problems related to volume, surface area, and the relationships between different shapes.

2D Shape Recap →→→ Area Problem Solving →→→ Area Review →→→ **Understanding 3D Shapes** →→→

Isometric Drawing ←←← Naming 3D Solids ←←← Plans and Elevations ←←← Identifying and Drawing Nets of Solids

→→→ Calculating Surface Area →→→ **Volume** →→→ Concept of volume

←←← Cubing and Cube Rooting ←←← Converting Between Units of Volume ←←←

Finding the Volume of a Cuboid →→→ Max-box Investigation →→→ Volume of a Prism →→→

TUDOR HABITS AND VALUES: Studying 3D shapes can develop grit by encouraging you to take risks, persevere through challenges, and develop problem-solving skills. Exploring complex forms and structures requires a willingness to try new things and persist despite setbacks.

VOCABULARY
- ❑ Face
- ❑ Edge
- ❑ Vertex
- ❑ Polyhedron
- ❑ Prism