

Keywords: Ks3

CAD - OnShape

Topic Title: Ks3 CAD – OnShape

Introduction to the topic: Why are you learning it and how does it link to what you've learned before?

This is a brand new skill for most students, using computer aided design to make 3d models.

What lessons will you cover during the topic?

Purpose of CAD, making parts and assemblies, solving problems.

Keyword	Definition
Assembly	A collection of instances of parts, sketches, surfaces, or subassemblies that defines both position and movement.
Chamfer	A Feature tool that enables you to break sharp edges with a bevel. Create bevelled edges on selected edges or faces.
Composite part	A part comprised of selected bodies (parts, surfaces, curves, and/or points) grouped together to act as one part. You can create a closed composite part (one which consumes the bodies involved) or an open composite part (one that does not consume the bodies involved).
Entity	An Onshape system object or an item built in Onshape: mates, mate connectors, sketch curves, parts, edges, and faces are all examples of entities.
Extrude	A Feature tool that extends a sketch in the direction normal to the sketch plane. If the sketch is closed, the object will become a 3D solid. If the object is not closed, it will become a 3D surface. Create, add to, subtract from, or intersect parts by extruding sketch regions or planar faces, or surfaces by extruding lines or curves.
Face	A model object; a portion of a part, surface, or closed sketch region having area and bounded by edges. For example, a rectangular part has six faces.
Instance	A part, sketch, surface, or subassembly used in an Assembly.
Mate	An Onshape feature used to position instances in an assembly and define how they move.
Part list	The list of parts created in the current Part Studio. They are listed in the bottom portion of the Feature list.
Revolve	Create, add to, subtract from, or intersect parts by revolving sketch regions or planar faces about a central axis, or surfaces by revolving lines and curves about a central axis.