

**CONCEPT** Three-dimensional (3D) design is the process of using software to create a mathematical representation of a 3D object or shape. The created object is called a 3D model, and these models are used for computer-generated (CG) design.

## BACKGROUND

Ivan Sutherland is a pioneer of 3D graphics and the creator of Sketchpad. This revolutionary program helped to create the first 3D objects. Sutherland and his colleague, David Evans, opened the first-ever department of computer technologies at the University of Utah.

## EXAMPLES

There are many types of 3D design methods used across manufacturing, architecture, building, construction, media and entertainment industries, including:

- 3D Computer-Aided Design (CAD)
- 3D Modeling
- Visual Effects (VFX)
- Virtual Reality (VR)
- Product Design
- Building Information Modeling (BIM)
- Generative Design
- Computer-Aided Manufacturing (CAM)

