

Difference Between 2D and 3D Shapes

The difference between 2D and 3D shapes is that all of the edges of 2D shapes are plainly observable. On the other hand, some of the edges in 3D shapes are hidden. There exists various differences between these two shapes which are elaborated in the table provided below.

Key Differences Between 2D and 3D

2D Shapes	3D Shapes
2D Refers to a 2-dimensional object.	3D Refers to a 3-dimensional object.
Only two dimensions of the object exist.	3 dimensions of the objects exist.
They can be present in the x-y axis or x-z axis or y-z axis at once and can not be present in all three at the same instance.	They exist on the x, y, and z-axis.
They only occupy the area.	They occupy area and volume, both.
All the edges of the object lie in the same plane.	Edges of the object can exist in different planes.
They only have length and height.	They have length, width and height.
Examples: triangle, square, circle, rhombus, etc.	Examples: Rohmboid, cuboid, pyramid, octahedron, dodecahedron, etc.

What are 2D Shapes?

2D shapes are also known as 2-dimensional shapes where D stands for dimension. They have both height and length. They only exist in a single plane hence called plane figures or plane objects. They can have area but not volume.

The 2D object can not exist in the third plane, for example, if a square exists in the x-y plane then it won't be present on the z-axis. All the corners or edges of the 2D objects are visible. The most common examples of 2D objects are paper sheets, squares, rectangles, triangles, circles, etc.

What are 3D Shapes?

3D or 3-dimensional objects are objects which exist in 3 dimensions. They will have length, width, and breadth. The existence of the 3D object can be in 3 different planes at once. The 3-dimensional objects can have area as well as volume.

We can see 3-dimensional objects anywhere we are. There are various 3D objects around us such as trees, tables, chairs, bottles, laptops, cameras, glass, etc.

