

# Unit 2 - Intro To Modeling with Blender

## Lesson #1 - Object and Edit Mode

### CG Cookie Videos used in this Lesson

Videos for this unit are available within the [Mesh Modeling Fundamentals](#) Download, or Included within the [Educator Blender Bundle](#).

- Creating Blender Mesh Objects 5 min
- Object Mode & Edit Mode 4 min

### Key Training

- Insert Mesh objects and modifying settings using the Operations Panel.
- Introduction to Edit Mode and switching between Object Mode and Edit Mode.

### Instructor Focus and Tips

- Focus on inserting mesh objects and the ability to change the settings on a primitive object using the Operations Panel. Make sure the students understand that once the object is transformed or another object is selected they will not be able to change the setting of the models

**Pro tip** - Some students will quick forget about the Operations Panel and that you can only change an object's settings when first inserted. In other videos sometimes the operations panel is used and if a student is switching between Blender and the video, they might lose track of the operations panel and might have to reinsert the object again.

### Student Activities and Assignments

- Have the students insert a UV Sphere and change the segments to 24 and rings to 18 in the operations panel. Then have them move the object and try and change its setting in the operations panel again to reinforce the idea that an object's settings can only be changed at the start.
- Have the students insert a few different mesh objects. Have them change the mesh objects using the operations panel. Have the student practice selecting different objects and switching between Object Mode and Edit Mode.
- Assignment - Have the students create a screenshot of a Mesh object in Object Mode and then in Edit Mode.

### **Blender Terminology, Commands and Hotkeys Introduced**

- Operations Panel - F6 key
- Object Mode and Edit Mode Toggle - Tab Key

### **BellRinger Prompts and Ideas**

- What are some of the way to change the properties of a Mesh Object?

### **Exit Ticket Prompts and Ideas**

- What is the difference between Object Mode and Edit Mode?
- How do you switch between Object Mode and Edit Mode?

### **Learning Targets**

- Student can change properties of Mesh objects using operation panel.
- Student can switch between Object Mode and Edit Mode.

### **Extended Learning Activity**

- Have the students start a new blender file, delete the cube and insert the monkey (Suzanne) file. Explain that Suzanne was created as an object with a definite top, bottom, back, front, and side views. Have the students practice changing to different views with the numpad keys.

## Rubric

	<b>Beginning</b>	<b>Developing</b>	<b>Accomplished</b>	<b>Exemplary</b>
Create simple objects from primary mesh objects	Student has received demonstration on creating simple objects from primary mesh objects.	Student can create simple objects from primary mesh objects with assistance.	Student can create simple objects from primary mesh objects without assistance.	Student can create simple objects from primary mesh objects without assistance and can explain to others.
Manipulate Primitive Object using Operation Panel	Student has received a demonstration on manipulating primitive objects using Operator Panel.	Student can manipulate Primitive Objects using Operator Panel with assistance.	Student can manipulate Primitive Objects using Operator Panel without assistance.	Student can manipulate Primitive Objects using Operator Panel without assistance and can explain to others.
Context Modes	Student has received demonstration of object mode and edit mode.	Student can switch between object and edit mode with assistance.	Student can switch between object and edit mode without assistance.	Student can switch between object and edit mode without assistance and can explain to others.

## **Aligned Standards**

### Standard 1: 3D Modeling Application Interface

- **Objective 1: Introduce basic 3D terminology and the 3D application interface.**
  - o Indicator 1: Know 3D modeling terminology

### Standard 2: Modeling 3D Objects

- **Objective 1: Use and manipulate 3D graphics and primitives**
  - o Indicator 1: Use 3D primitives
  - o Indicator 2: Manipulate 3D models and primitives
- **Objective 2: Create, use and manipulate shapes**
  - o Indicator 1: Create 3D Shapes
  - o Indicator 2: Use 3D Shapes
  - o Indicator 3: Manipulate 3D shapes
- **Objective 3: Edit Models**
  - o Indicator 1: Modify edges, faces, vertices
  - o Indicator 2: Edit an object after its been created