



Unit 2 - Intro to Modeling with Blender

Lesson #2 - Editing objects

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](#).

- Mesh Anatomy 3 min
- Mesh Selection Modes 3 min

Key Training

- Structure of a Mesh object, Vertices, Edges, Faces.
- Mesh selection modes Vertex mode, Edge Mode and Face Mode

Instructor Focus and Tips

- Reinforce the using of the TAB key to select between edit mode and object mode from Lesson #1.
- Give students time to practice using the different selection modes. Working in edit mode is also called pushing and pulling vertices.

Student Activities and Assignments

- Practice manipulating vertices, edges and faces on a variety of objects.
- Assignment - Have the students start a new Blender file. Delete the square and insert 3 UV Sphere. Go into edit mode on one of the objects. Switch into vertex mode and manipulate the vertices in vertex mode. Get out of edit mode and select the 2nd UV Sphere and manipulate the edges in edge mode. Get of of edit mode and select the 3rd UV Sphere and manipulate the faces in face mode. Save a screenshot of the three manipulated objects.

Blender Terminology, Commands and Hotkeys Introduced

- Vertices and Vertex Select Mode
- Edges and Edge Select Mode
- Faces and Face Select Mode
- Selecting using multiple modes (Shift while selecting mode).

BellRinger Prompts and Ideas

- How would you change a cube into a rectangle using Blender?
- What is the difference between Object Mode and Edit Mode?

Exit Ticket Prompts and Ideas

- What are the three different selection modes?
- What selection mode are you more comfortable working with?

Learning Targets

- Student can identify the makeup of mesh anatomy (vertices, edges, and faces).
- Student can work with the different selection modes (vertex, edge and face).

Extended Learning Activity

- Research other 3D programs. Do they also use vertices, edges and faces?

Rubric

	Beginning	Developing	Accomplished	Exemplary
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.
Mesh Anatomy and Mesh Selection Modes	Student has received demonstration on mesh anatomy and mesh selection modes.	Student can use mesh selection modes with assistance.	Student demonstrates understanding of mesh anatomy and can use mesh selection modes without assistance.	Student demonstrates understanding of mesh anatomy and can use mesh selection modes without assistance and can explain to others.

Aligned Standards

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