

# Unit 1 - Getting started with Blender

## Lesson #5 - Practice 3D Modeling

### CG Cookie Videos used in this Lesson

These videos are part of the [Free Blender Basics download](#), or can be [streamed online here](#).

- |                                 |       |
|---------------------------------|-------|
| • Creating Your First 3D Model  | 4 min |
| • Modeling a Planet in Blender  | 3 min |
| • Understanding 3D Illusions    | 1 min |
| • Independent Modeling Exercise | 1 min |

### Key Training

- Create simple models from Blenders primitive objects.
- Saving Blender files.
- Practice orbiting around the object.

### Instructor Focus and Tips

- Before you even start using Blender, you need to set and implement classroom policies on managing student work. This is hard to standardize in training because of the variety of district, school and individual computer use policies. The students should have a **good understanding of where to save their work before they start using Blender**. At the end of the *Creating Your First 3D Model* video the instructor suggest saving their first work and review later. You should get the students in the habit of saving all of their work.
- As part of the this lesson you will be creating simple models with the students. The focus should not be on the models, the students can be creating anything. The main focus at this point is to just be comfortable getting in and out of Blender and using Blender primitive mesh objects. Blender can quickly get complicated and this could lead to frustration in beginning students.
- Give time for all students get comfortable with Blender before moving on. If you rush this part of the course some students will struggle later on. Some students will naturally become more comfortable with the interface than others, encourage those students to focus on becoming faster at using Blender while the others are getting comfortable with the interface.

**ProTip:** At this point you will start to noticing that some students will start taking off and some students will struggle with Blender. To better manage your class get the speedsters to help the struggling students. The best way to learn, is to teach. 😎

### **Student Activities and Assignments**

- Practice more than once with the students
- Assignment - Have the students create and save the tree along with the video.
- Assignment - Have the students create and save the planet along with the video.
- Assignment - Have the students create some of the other suggest objects from the video. You can also come up with your own ideas or use one of the students idea.
- Assignment - Have the student come up with at least of one of their own objects created from primitives.

### **Commands and Hotkeys Introduced**

- Mesh Objects (Shift A)
- Save (Ctrl S)

### **BellRinger Prompts and Ideas**

- Take an image of a complex object and have the students break it down to its primitive objects. *For example: In the video the instructor breaks down the tree to a cylinder and cone. Have students break down other simple objects into it primitives.*
- Have students submit ideas for a complex objects like a tree or snowman. Take one of the ideas and have the class make that complex object out of primitives.

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

- How comfortable are you making simple objects from Blender primitive?
- Are you having any problems with saving and submitting your Blender work for review?

### **Learning Targets**

- Students can save files.
- Students can create simple objects from primary mesh objects.

### **Extended Learning Activity**

- Encourage students to start collecting images of their Blender creations. Have them register and start a Gallery of their work in CG Cookie.  
<https://cgcookie.com/projects>

## 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.
Saving software files	Student has received demonstration on saving work to classroom requirements.	Student can save work to class requirements with assistance.	Student can save work to class requirements without assistance.	Student can save work to class requirements consistency without assistance.

## 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
  - o Indicator 2: Identify parts of the 3D application interface
- **Objective 2: Manipulation of 3D application interface**
  - o Indicator 2: Navigating 3D space
  - o Indicator 3: Navigating views
- **Objective 3: Manipulation of objects**
  - o Indicator 1: Selecting and transforming objects
  - o Indicator 2: Adding and removing objects

### 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