

## Overview

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This guide steps through installing the software bundle for 3D Character Animation. The bundle includes Blender – a professional, open-source 3D modeling and animation production program.

*Because installation and verification can take up to an hour, we recommend installing the necessary software before students begin the course or plan to devote the first course session to installation.*

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## System Requirements

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### Important!

Because students must access their saved project files from one session to the next, students need:

- Access to the same computer each session
- To be able to save files to the desktop

### Hardware

- PC or Mac (not tablet or Chromebook)
- Windows 11, 10, 8, 7, or Mac: OS 10.9 or higher, 64-bit (after 2008).
- CPU: Intel Core i3-3210 3.2 GHz / AMD A8-7600 APU 3.1 GHz or equivalent
- 4 GBs of RAM
- 7 GBs free disk space

### Graphics

- GPU (Integrated): Intel HD Graphics 4000 (Ivy Bridge) or AMD Radeon R5 series (Kaveri line)
- GPU (Discrete): Nvidia GeForce 400 Series or AMD Radeon HD 7000 series
- Graphics card must have OpenGL 3.2 compatible graphics with 1 GB RAM
- Using a monitor that allows for at least a 1280 x 768 resolution

### Network

- Speeds of at least 1mbps

### Other

- Headphones
- Mouse w/ scroll wheel

## Frequently Asked Installation Questions

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### How long will it take to complete the installation?

The installation process for the 3D Character Animation software can take up to an hour, depending on the internet connection.

### What if the student won't have the same computer every day?

The software bundle needs to be installed on all computers the student may use. Additionally, student projects will need to be moved from the last computer they worked with to the new computer each time.

### What if students want to work on their projects from another computer? / How can students ensure they have access to their project files?

Contact Apex Learning support. We will work with you to find a suitable method of moving projects between computers.

### What if we need to save student work on Google Drive, OneDrive, or a network storage location?

Contact Apex Learning support. For this course, saving student project files in an alternative storage location is possible. With that said, we'll want to walk you through all the files that will need to be saved on the network storage, or cloud storage, location in order for the student to be able to work properly.

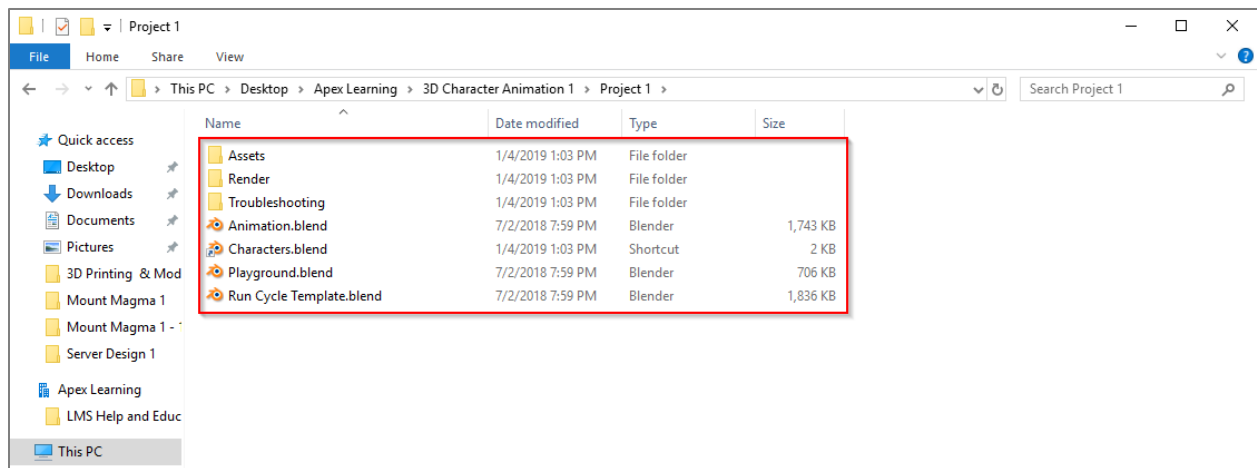
## Download the Course Software Bundle

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Students can download the software bundle from the first page of the course (Unit 1 Overview).

If an administrator will install the software, follow these steps.

1. Download Blender and the rest of the course software:
  - PC installer- <https://downloads.apexlearning.com/CA1/CA1-Course-10.1.1.exe>
  - MAC installer- [https://downloads.apexlearning.com/CA1/3D\\_Character\\_Animation.dmg](https://downloads.apexlearning.com/CA1/3D_Character_Animation.dmg)
2. Install the software on the computer the student will be using.
  - a. Run Installer once the download completes.
  - b. When the installer window appears, click the *Next* button.
  - c. In the following window, click the *Next* button to begin the installation process.
  - d. Close the "Successful Install" Dialog window.
3. Verify content
  - a. Navigate to *Apex Learning > 3D Character Animation 1 > Project 1* folder on the desktop. If using Windows 11 your *Apex Learning* folder may be saved under *C:\Users\User Name\Desktop*
  - b. Validate that you see the following files & folders: *Assets*, *Render*, *Troubleshooting*, *Animation.blend*, *Characters.blend*, *Playground.blend*, and *Run Cycle Template.blend*.



- c. Launch Blender by double-clicking the *Animation.blend* file.

Note: Once you double-click *Animation.blend*, a console window will appear briefly before Blender opens. You may see a message regarding the “Hz” value not being set to “44100”. Disregard this message; it doesn’t affect how the course software functions.

- d. After the *Animation.blend* file opens in Blender, you should see a pixelated landscape that contains blocks comprised of grass and dirt.



## Verify the Installation

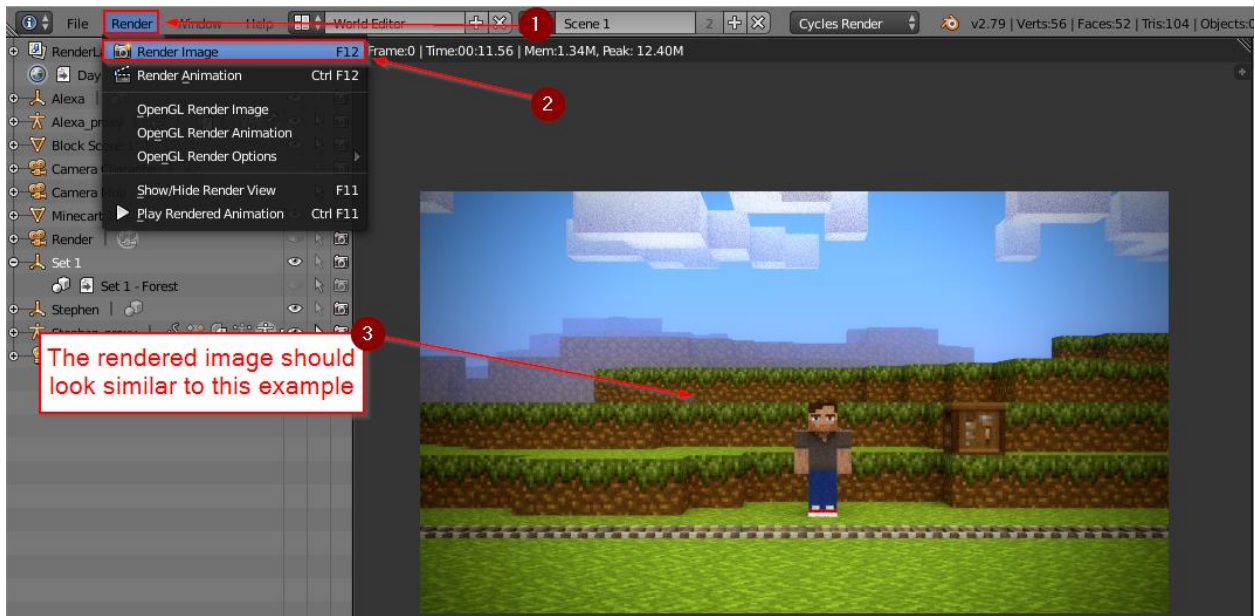
1. At the bottom of the window showing the orange circle and grassy landscape, find the Layers Panel. The Layers Panel is just two squares which are broken up into 10 smaller squares each. Notice that five of the twenty squares have a dot in them (one dot is orange and the other four are gray).
  - a. Hold the *Shift* key on your keyboard and select the gray dots as shown below. A blocky character with a blue animation rig should appear.



- b. Hover your cursor over the blocky character *without selecting it*. Hold Shift-A on your keyboard and a menu will pop up.
- c. In the popup menu, select *Group Instance* and a new menu will appear.
- d. In this sub menu you should see a search bar and different assets to select. You don't have to select anything here. This process is only to verify the course assets are linked properly.



2. On the top toolbar in Blender, click the *Render* button and choose *Render Image*. It may take a few seconds, but you should see a properly rendered image appear.



- To close Blender, click the red X in the top right corner of the Blender window. In the popup window that appears, click the OK button. The above steps were performed to test the installation, so you don't need to save the changes that were made.

**Installation Complete!** If all of the above steps worked, you have properly installed the software and content required for 3D Character Animation.

## How to Download Bonus Materials

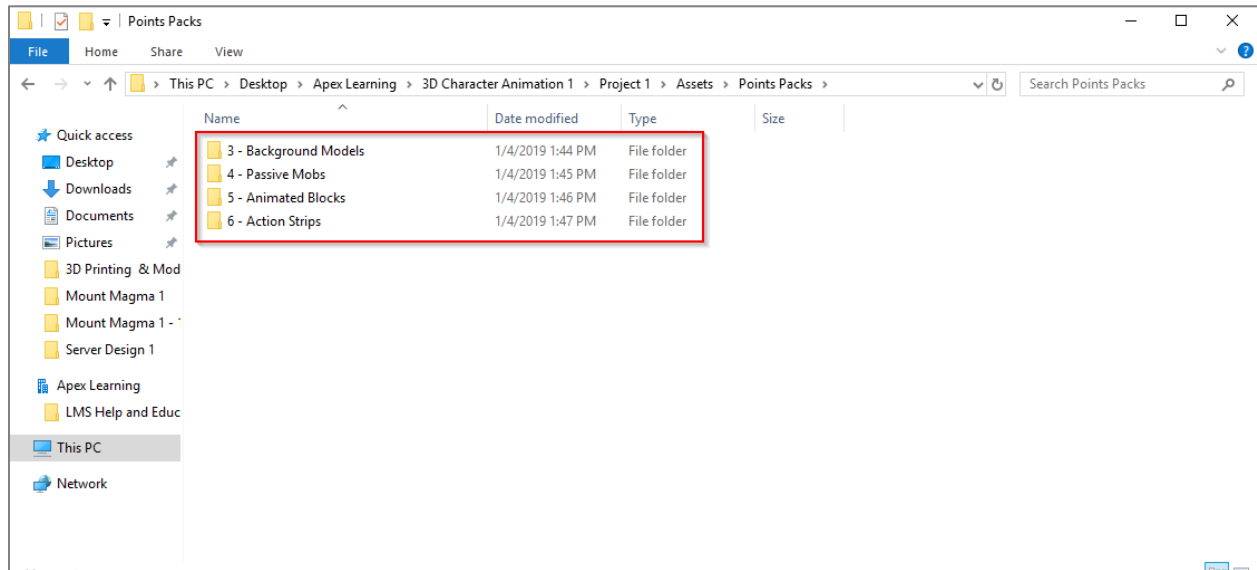
Explore activities contain bonus materials that students may download from within the course.

Should you wish to install this material beforehand, follow these steps:

- If open, close Blender by clicking the red X in the top right corner of the Blender window.
- Download the Points Store installers from the links below.

File	MAC	PC
Points Store 1	<a href="https://downloads.apexlearning.com/CA1/CA1-Points_Pack_1-10.1.1.dmg">https://downloads.apexlearning.com/CA1/CA1-Points_Pack_1-10.1.1.dmg</a>	<a href="https://downloads.apexlearning.com/CA1/CA1-Points-Pack-1-10.1.1.exe">https://downloads.apexlearning.com/CA1/CA1-Points-Pack-1-10.1.1.exe</a>
Points Store 2	<a href="https://downloads.apexlearning.com/CA1/CA1-Points_Pack_2-10.1.1.dmg">https://downloads.apexlearning.com/CA1/CA1-Points_Pack_2-10.1.1.dmg</a>	<a href="https://downloads.apexlearning.com/CA1/CA1-Points-Pack-2-10.1.1.exe">https://downloads.apexlearning.com/CA1/CA1-Points-Pack-2-10.1.1.exe</a>
Points Store 3	<a href="https://downloads.apexlearning.com/CA1/CA1-Points_Pack_3-10.1.1.dmg">https://downloads.apexlearning.com/CA1/CA1-Points_Pack_3-10.1.1.dmg</a>	<a href="https://downloads.apexlearning.com/CA1/CA1-Points-Pack-3-10.1.1.exe">https://downloads.apexlearning.com/CA1/CA1-Points-Pack-3-10.1.1.exe</a>
Points Store 4	<a href="https://downloads.apexlearning.com/CA1/CA1-Points_Pack_4-10.1.1.dmg">https://downloads.apexlearning.com/CA1/CA1-Points_Pack_4-10.1.1.dmg</a>	<a href="https://downloads.apexlearning.com/CA1/CA1-Points-Pack-4-10.1.1.exe">https://downloads.apexlearning.com/CA1/CA1-Points-Pack-4-10.1.1.exe</a>
Points Store 5	<a href="https://downloads.apexlearning.com/CA1/CA1-Points_Pack_5-10.1.1.dmg">https://downloads.apexlearning.com/CA1/CA1-Points_Pack_5-10.1.1.dmg</a>	<a href="https://downloads.apexlearning.com/CA1/CA1-Points-Pack-5-10.1.1.exe">https://downloads.apexlearning.com/CA1/CA1-Points-Pack-5-10.1.1.exe</a>
Points Store 6	<a href="https://downloads.apexlearning.com/CA1/CA1-Points_Pack_6-10.1.1.dmg">https://downloads.apexlearning.com/CA1/CA1-Points_Pack_6-10.1.1.dmg</a>	<a href="https://downloads.apexlearning.com/CA1/CA1-Points-Pack-6-10.1.1.exe">https://downloads.apexlearning.com/CA1/CA1-Points-Pack-6-10.1.1.exe</a>

3. Run them one-by-one to install the bonus material.
4. Verify that everything installed properly by going to the desktop folder: *Apex Learning > 3D Character Animation 1 > Project 1 > Assets > Points Pack*. Inside, you should see four different folders. Important: Points Store 1 & 2 material will not appear in this folder because this material involves texture packs and bonus character skins which are stored in different folder locations.



## Blender and 3<sup>rd</sup> Party Sites

Students using Blender may discover options to navigate away from the tool to related websites via the help menu. To ensure students do not gain access to online forums or other potentially questionable content and remain focused on the work they need to complete, we suggest blocking access to the following URLs:

- <https://devtalk.blender.org/>
- <https://wiki.blender.org/wiki/Communication/Contact>
- <http://freenode.net/>

There is also a large global Blender community. This site <https://www.blender.org/community/> provides access to multiple URLs:

- <https://blender.stackexchange.com/>
- <http://blender.today/>
- <https://blender.chat/>
- <https://rightclickselect.com/>
- <https://www.reddit.com/r/blender/>
- <https://www.facebook.com/groups/BNPRandFreestyle/>
- <http://bbug.be/>
- <https://blenderartists.org/>
- <https://www.blendernation.com/>
- <https://discord.gg/blender>
- <https://plus.google.com/communities/115632807910317842467>
- <https://www.blendswap.com/>
- <https://www.facebook.com/groups/2207257375>
- <http://www.blendercn.org/>
- <http://www.bgteach.com/>
- <http://dbc-3d.nl/>
- <http://blenderlounge.fr/>
- <http://blenderclan.tuxfamily.org/>
- <https://www.nurembug.org/>
- <https://www.meetup.com/Blender-3D-Meetup-Munchen/>
- <https://www.blendpolis.de/>
- <https://www.facebook.com/groups/BlenderGrcece/>
- <http://forum.blender.org.il/>
- <https://www.blender.it/>
- <https://blender.jp/>
- <https://www.facebook.com/groups/blender3d.msia>
- <http://polskikursblendera.pl/>
- <https://www.facebook.com/groups/blenderpol ska/>
- <http://www.blender.pl/>
- <https://blender.community/c/hoje/>

- <http://forum.blender-pt.com/>
- [https://vk.com/blender\\_3d](https://vk.com/blender_3d)
- <http://blender3d.org.ua/>
- <http://www.blenderhoy.com/>
- <http://www.g-blender.org/>
- <https://www.facebook.com/groups/HubLa/>
- <https://www.facebook.com/groups/blenderpo/>
- <https://www.facebook.com/groups/blendeame/>
- <http://www.blendertr.com/>

## Support

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Online Help is available to site coordinators, teachers, and students by signing in to Apex Learning and selecting Help in the main menu.

The Apex Learning Support team is available Monday – Friday, 7:00 AM – 9:00 PM Central Time.

- 1-800-453-1454 option 2
- [support@apexlearning.com](mailto:support@apexlearning.com)
- Chat is available via online Help