
Hierarchy
Scene
Game
Package Manager
Inspector
SampleScene
Directional Light
Head_Dec
Plane
Audio Source
Virtual Field Trips
Unity Hub and Unity 2020.3.18f1 Tutorials
Gareth W. Young
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Console
Favorites
Assets
3D Model
Scenes
Packages
Materials
Head_Dec
Head_Mat

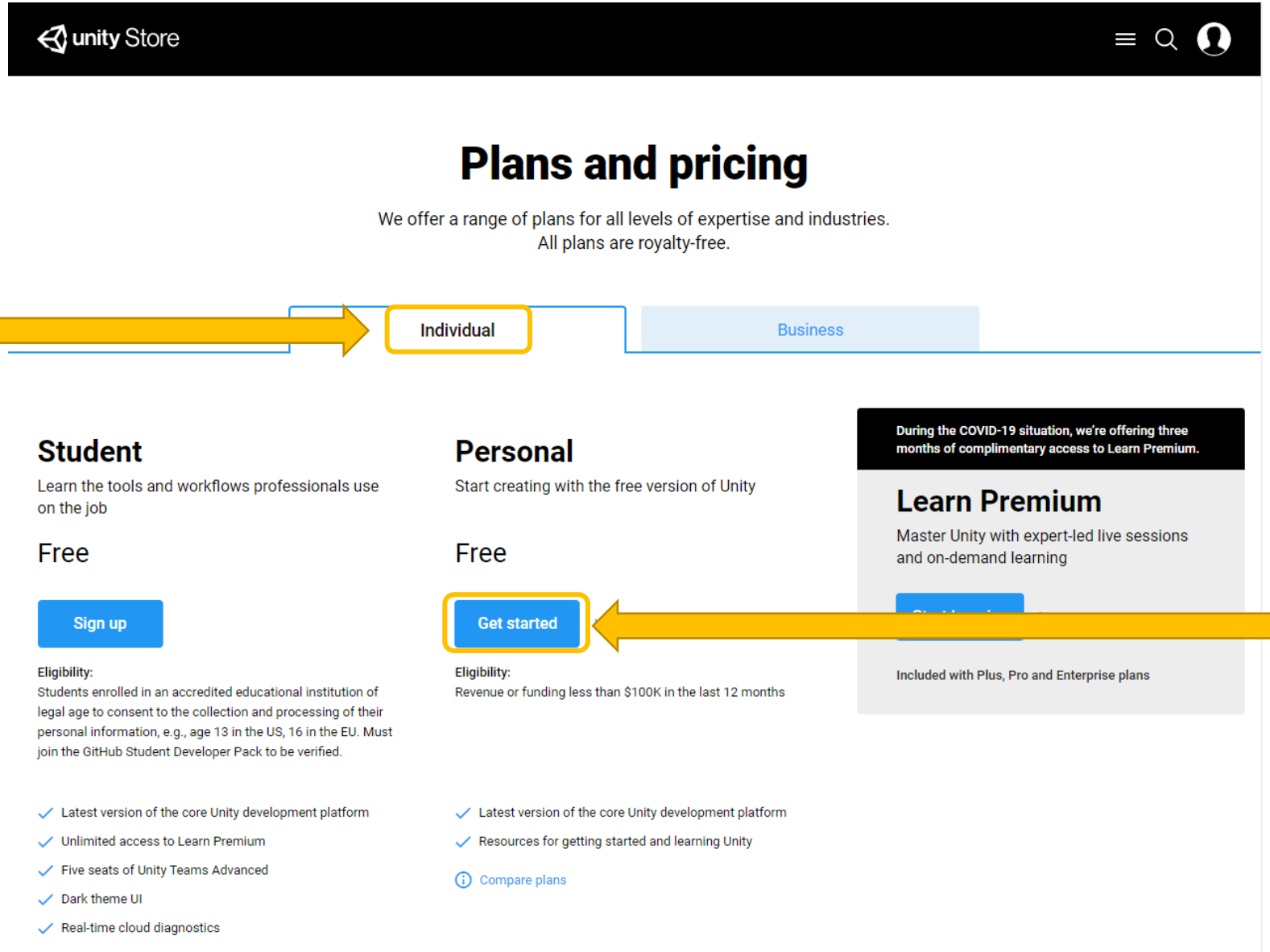
Software requirements

For this tutorial you will need the following software installed:

- Unity Hub [Windows / Mac / Linux]
  - (https://unity3d.com/get-unity/download)
- Unity (version 2020.3.18f1) & Unity account [Windows / Mac / Linux]
  - (https://unity3d.com/get-unity/download/archive)

Download Unity

1. Navigate to the Unity Website and find the “individual” license versions

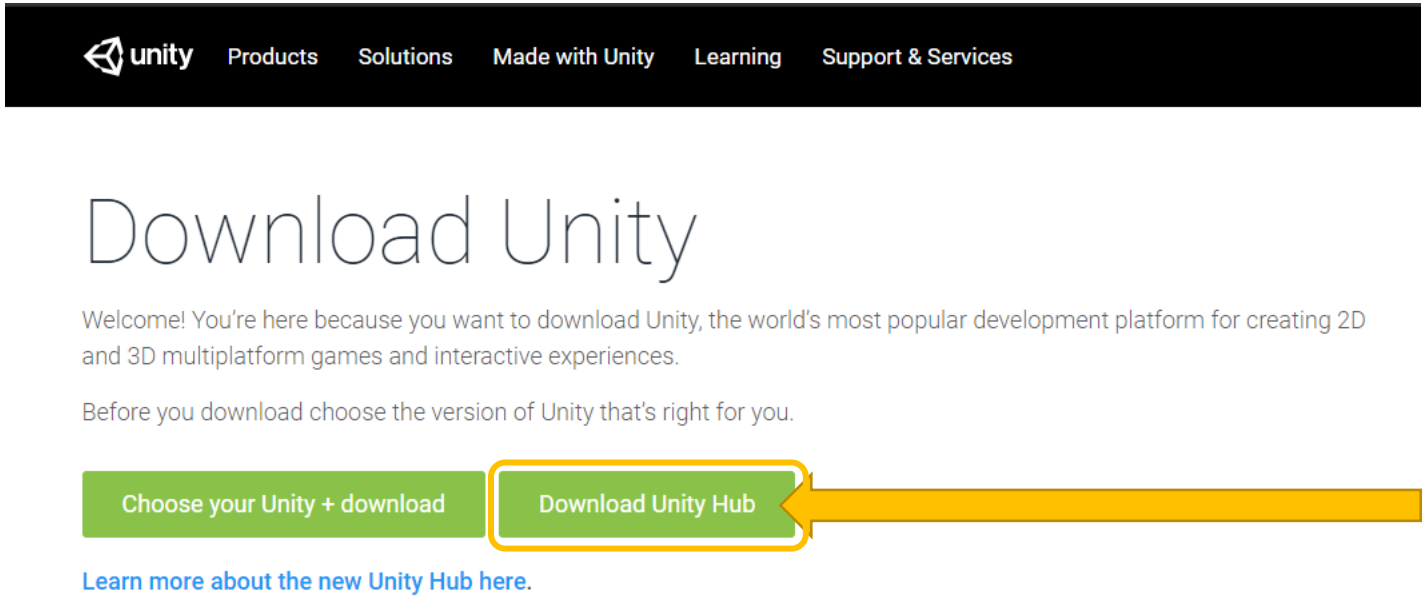


2. Choose Individual and click “Get Started” to download the free Personal license version.

Download Unity: https://store.unity.com/#plans-individual

Download Unity Hub

1. Navigate to the “Download Unity” page

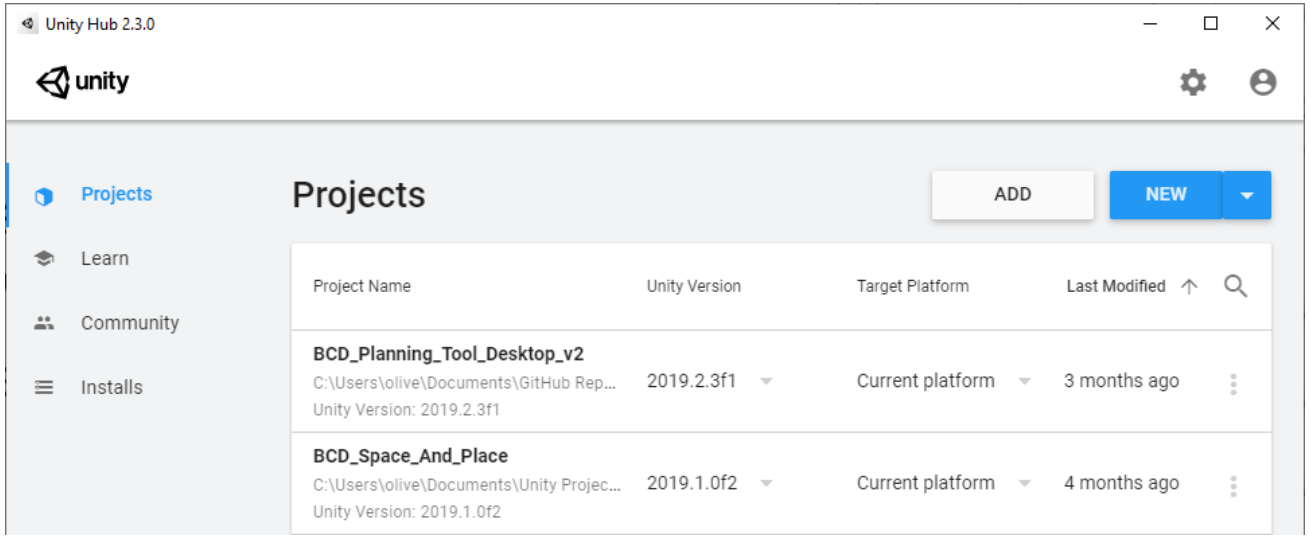


2. Click “Download Unity Hub” and follow the installation instructions for “UnityHubSetup.exe”

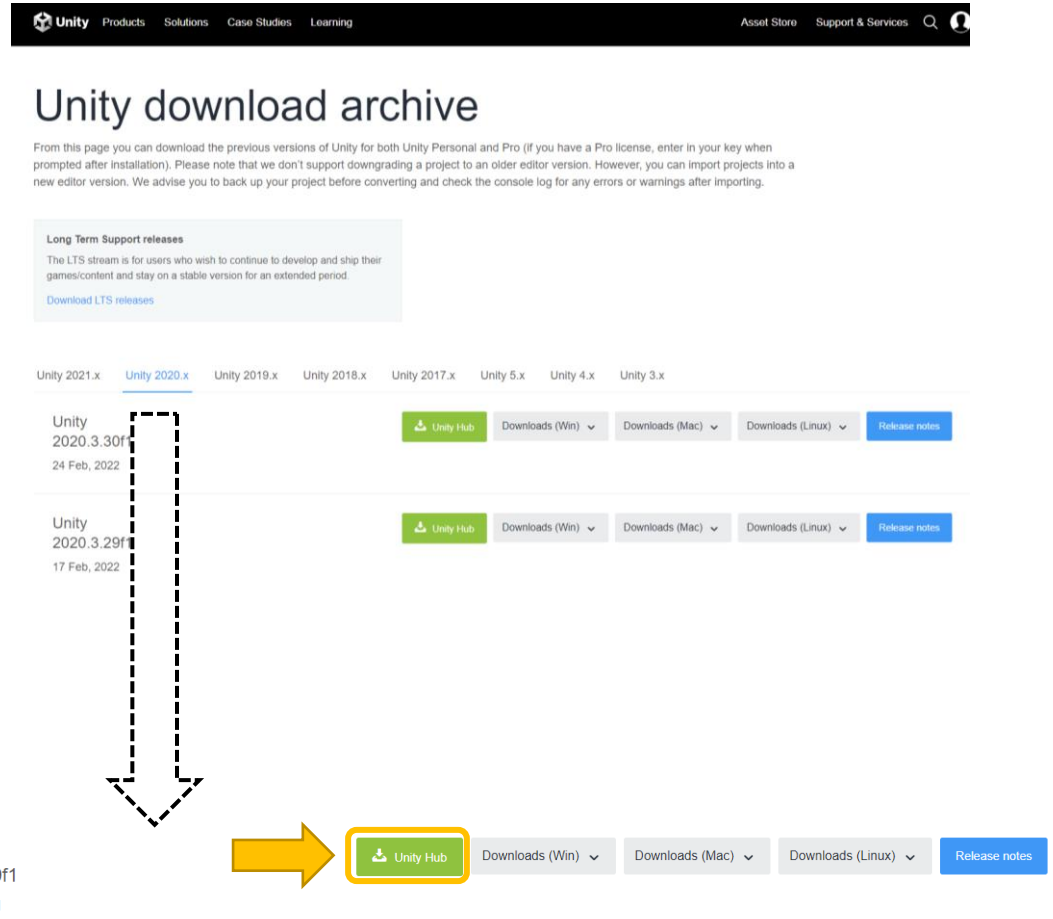
Download Unity: https://unity3d.com/get-unity/download

Adding Unity 2020.3.18f1 to Unity Hub

- Open Unity Hub on your desktop

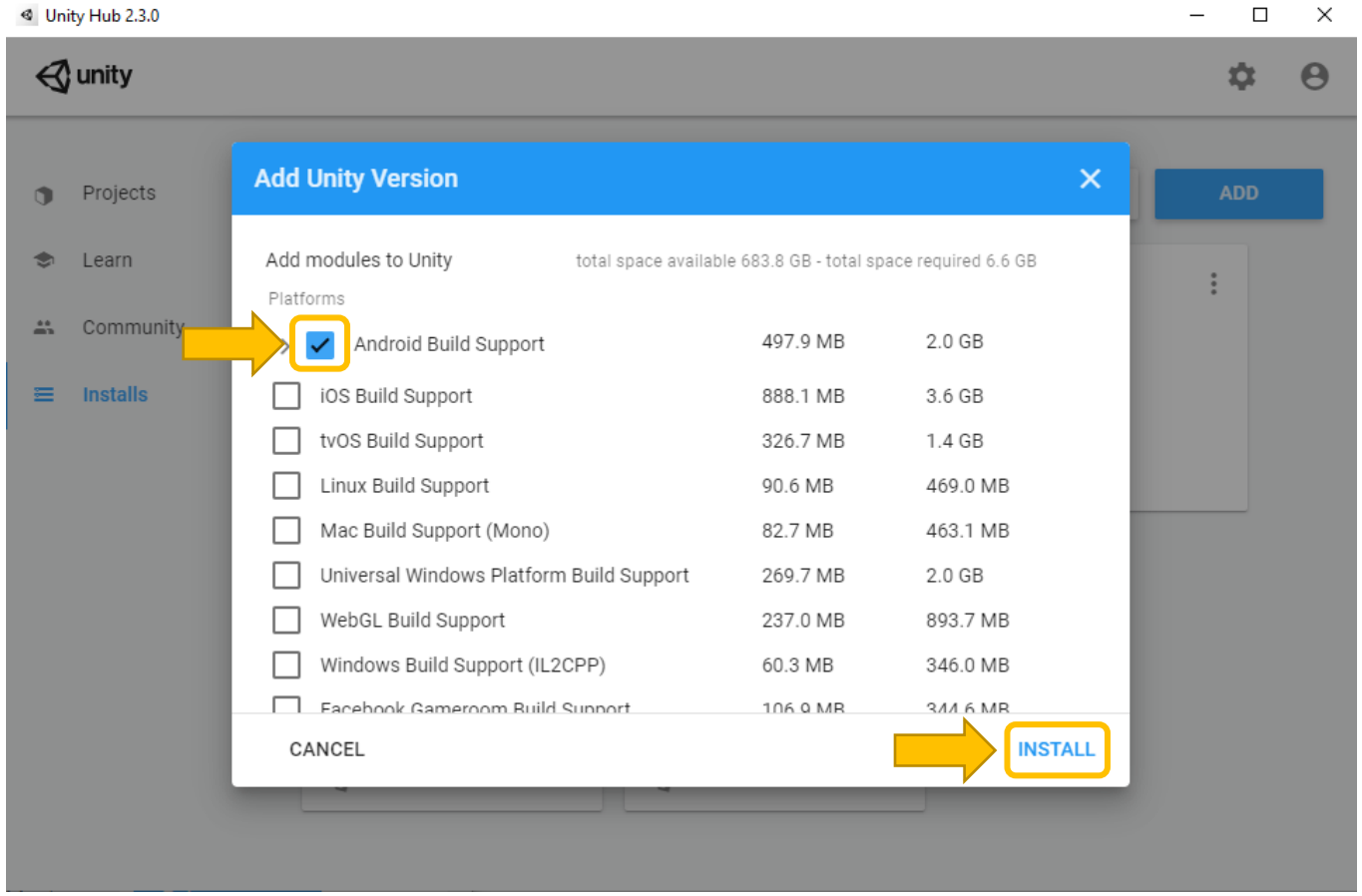


- Later we will be using the AltspaceVR Uploader which requires Unity version 2020.3.18f1
- Navigate to the Unity download archive in your web browser
- Scroll down the page until you find Unity 2020.3.18f1
- Click the green ‘Unity Hub’ button next to it
- It should start downloading in Unity Hub



Unity download archive: https://unity3d.com/get-unity/download/archive

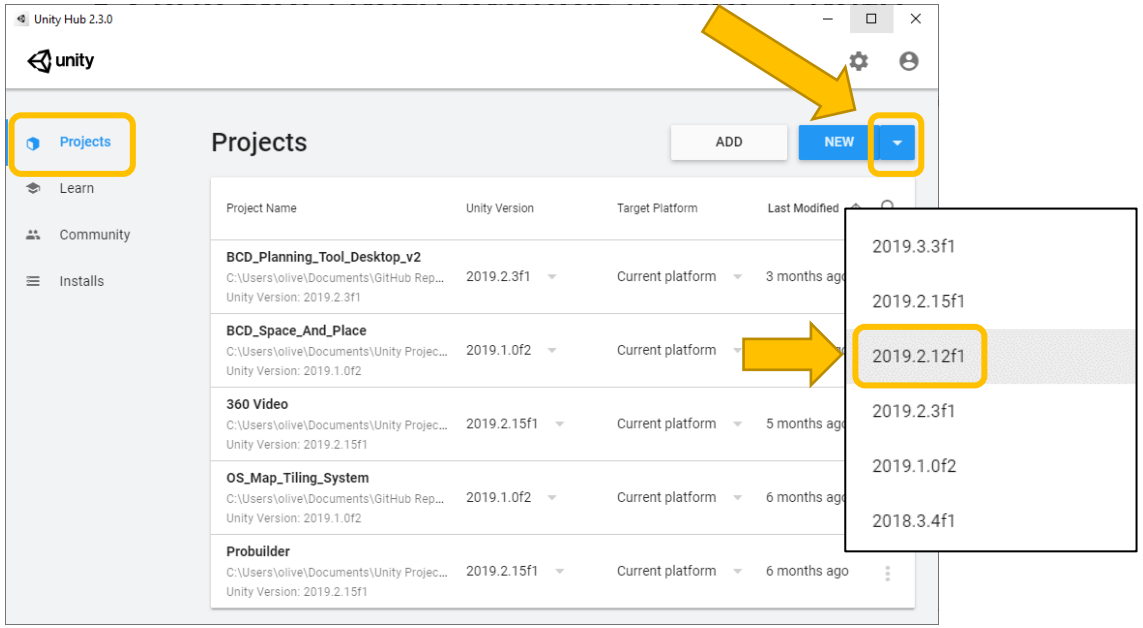
Adding Unity 2020.3.18f1

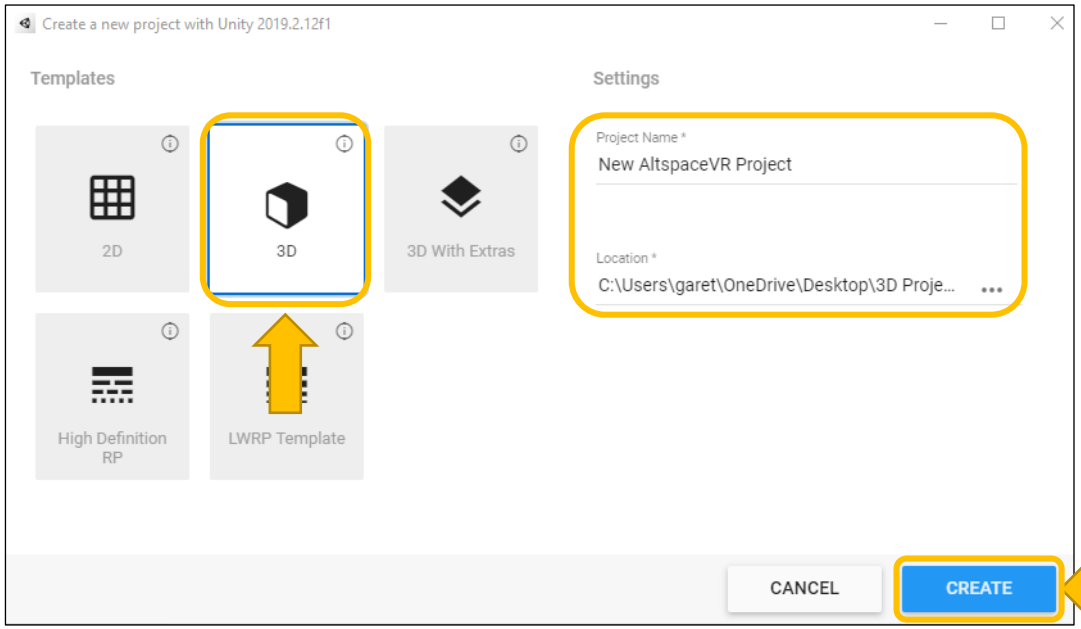


- Check “Android Build Support” to allow you to build AltspaceVR apps for Mobile VR
- Click “Install”
- Unity 2020.3.18f1 will be added to your list of Unity Installs and start downloading

Using Unity – Starting a new project from Unity Hub

- In Unity Hub select Projects and click the button next to “New”
- Select Unity version 2020.3.18f1
- Select “3D” and provide a name for the project
- Use the “Unity” folder in the “3D Project” folder as the save location
- Click “Create”



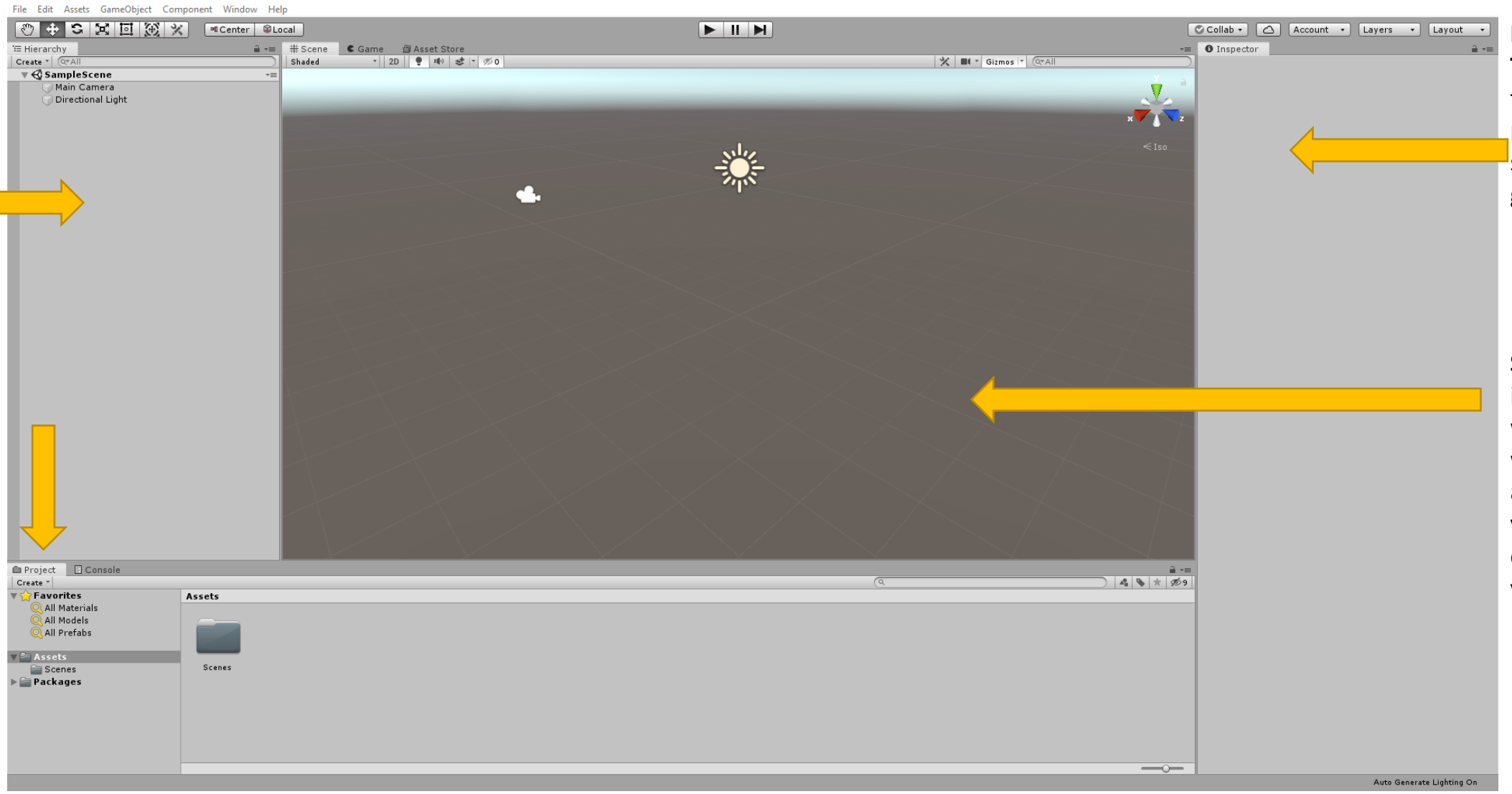


Click “CREATE”

Using Unity – The basics (User Interface)

Hierarchy Panel lists the contents of the current scene

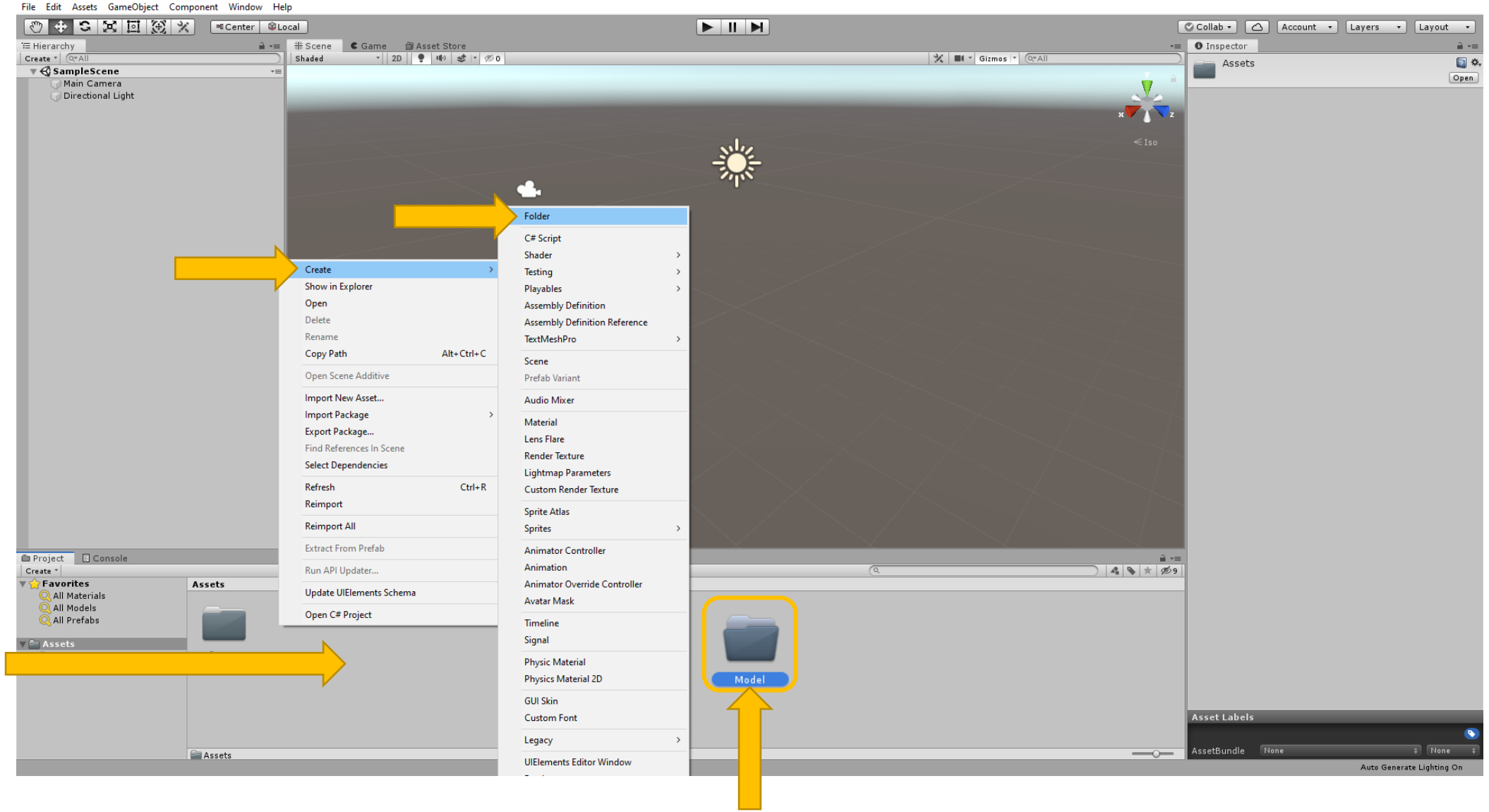
The **Project Tab** is used to manage your project and provides a view of your **Assets** folder where 3D models, textures and other game content are stored



Inspector Tab displays the properties of selected game objects

Scene View is the window where you arrange and view game objects in your scene

Using Unity – Importing the edited model

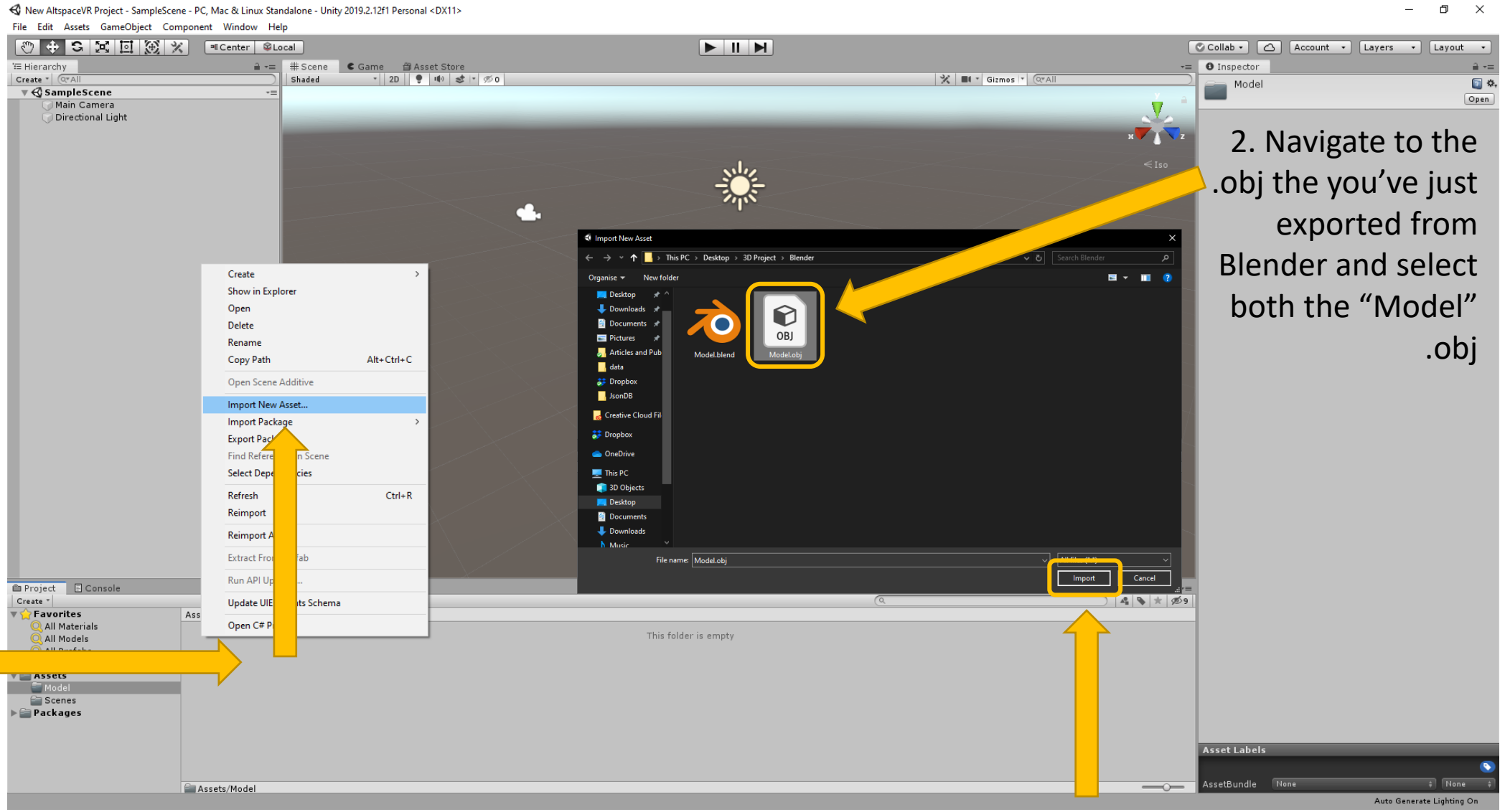


1. Right-click in the “Assets” window of the “Project” and then go to “Create” and “Folder”

2. Call the new folder “Model” and double click to open it

Using Unity – Import the edited model Blender model

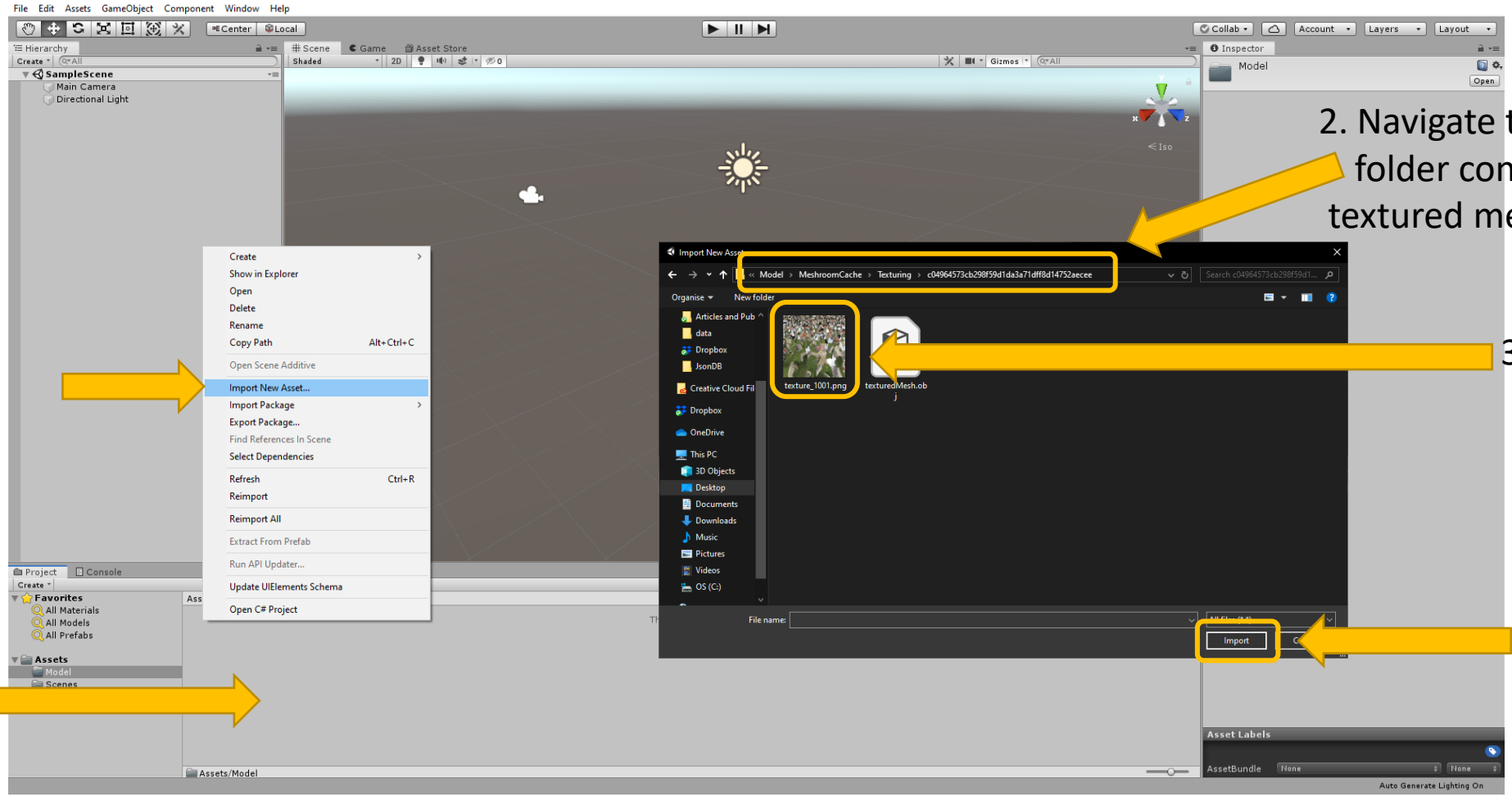
1. Right-click in the “Assets/Model” folder window and then select “Import New Asset”



2. Navigate to the .obj the you’ve just exported from Blender and select both the “Model” .obj

3. Click “Import”

Using Unity – Importing the Meshroom model texture



1. Right-click in the "Assets/Model" folder and select "Import New Asset" as before

2. Navigate to the Meshroom folder containing the initial textured mesh you imported into Blender

3. Select the .png texture

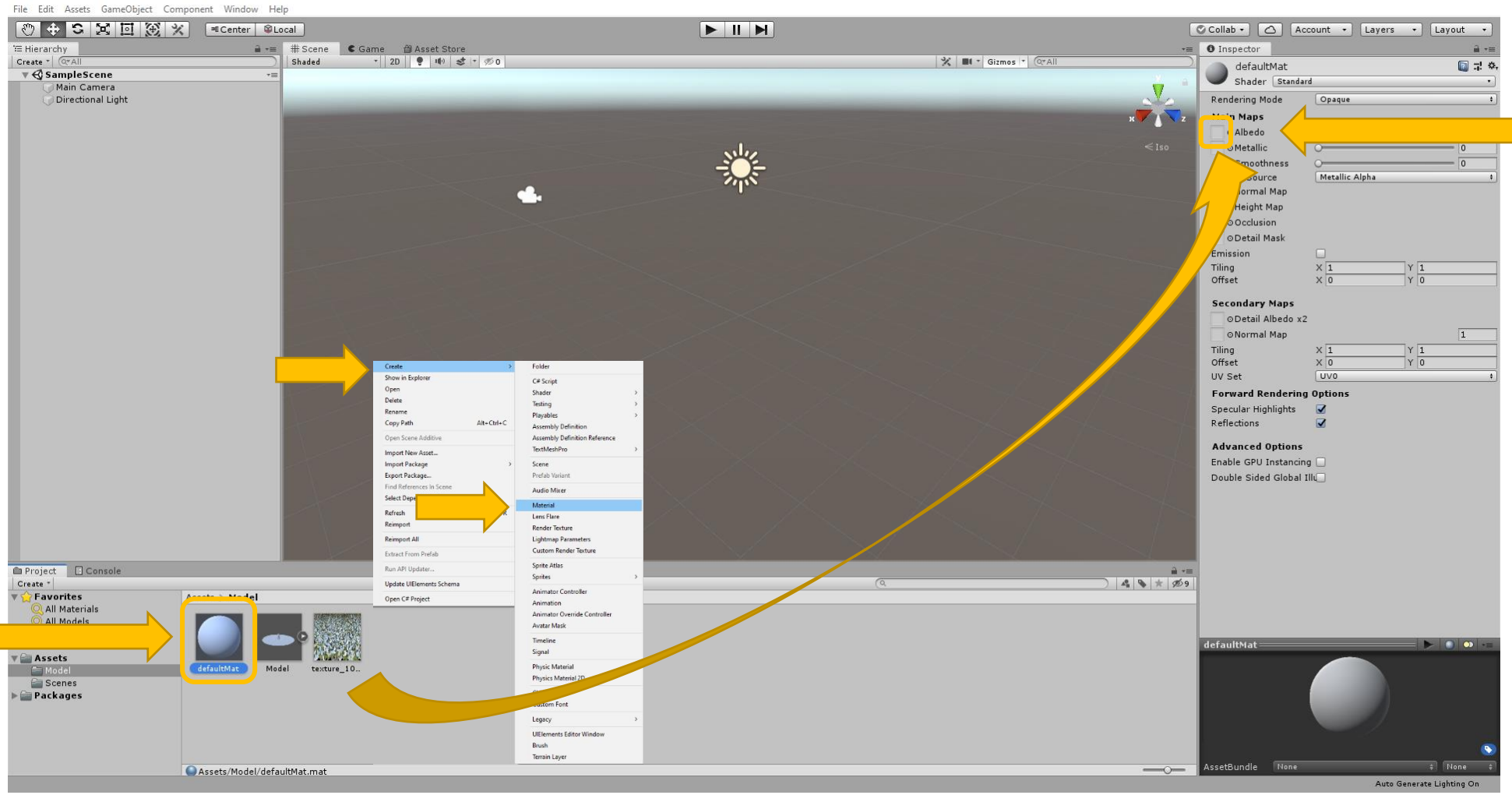
4. Click "Import"

NOTE: You'll find the Meshroom model by navigating to the "3D Project folder": **3D Project\Model\MeshroomCache\Texturing**
The folder is named with a long sting of alphanumeric characters. Inside you'll find the **.png** file you are looking for.

Using Unity – Create a material and apply the texture

1. Right-click in the “Assets/Model” folder but this time select **Create > Material**

2. The material should now appear in the “Model” folder.

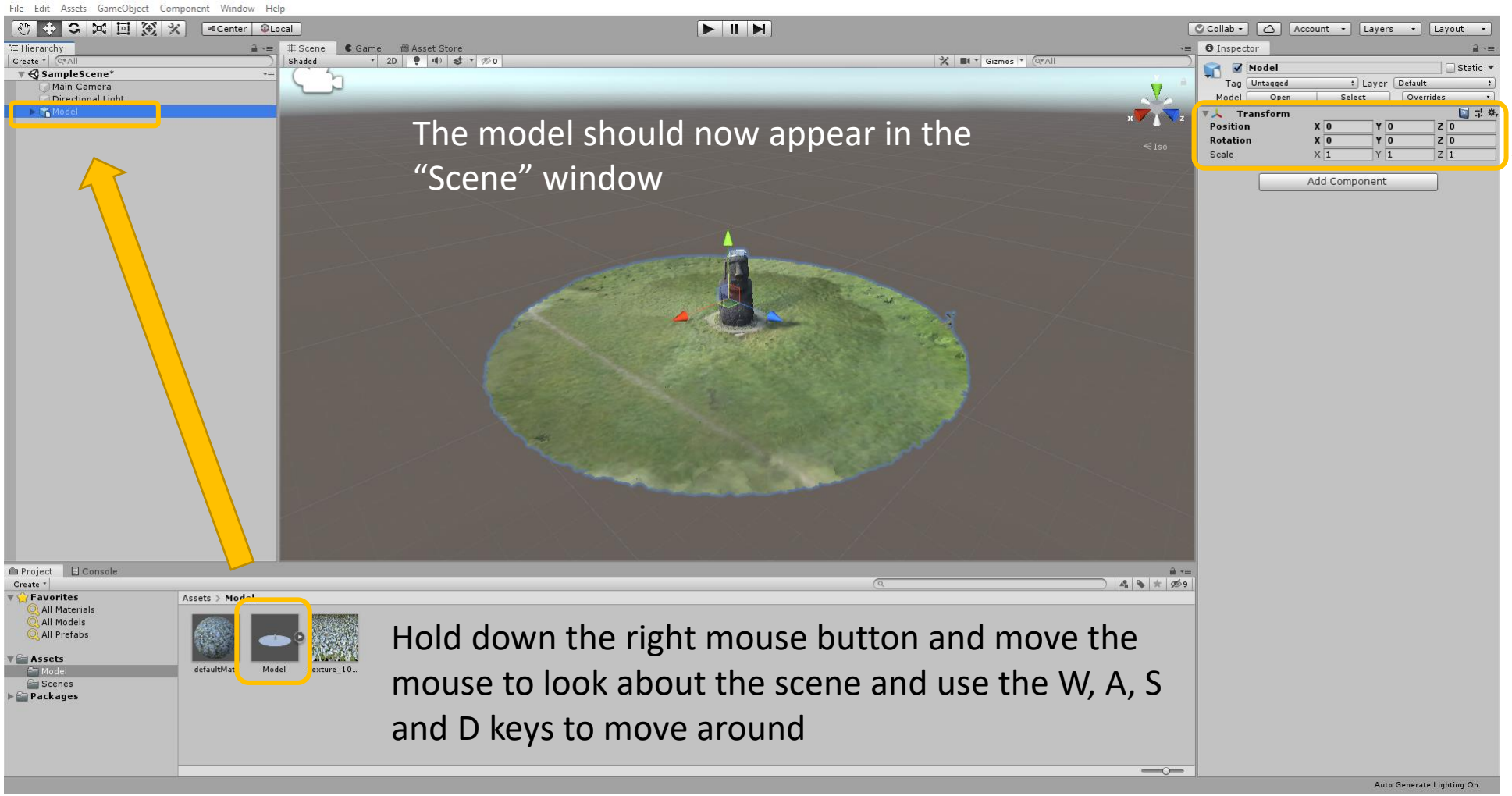


3. Left-click on the material and look over to the “Inspector window” on the right for more information

4. Drag and drop the “Texture” file over to the “Albedo” map on the material

Using Unity – Working with the model in your scene

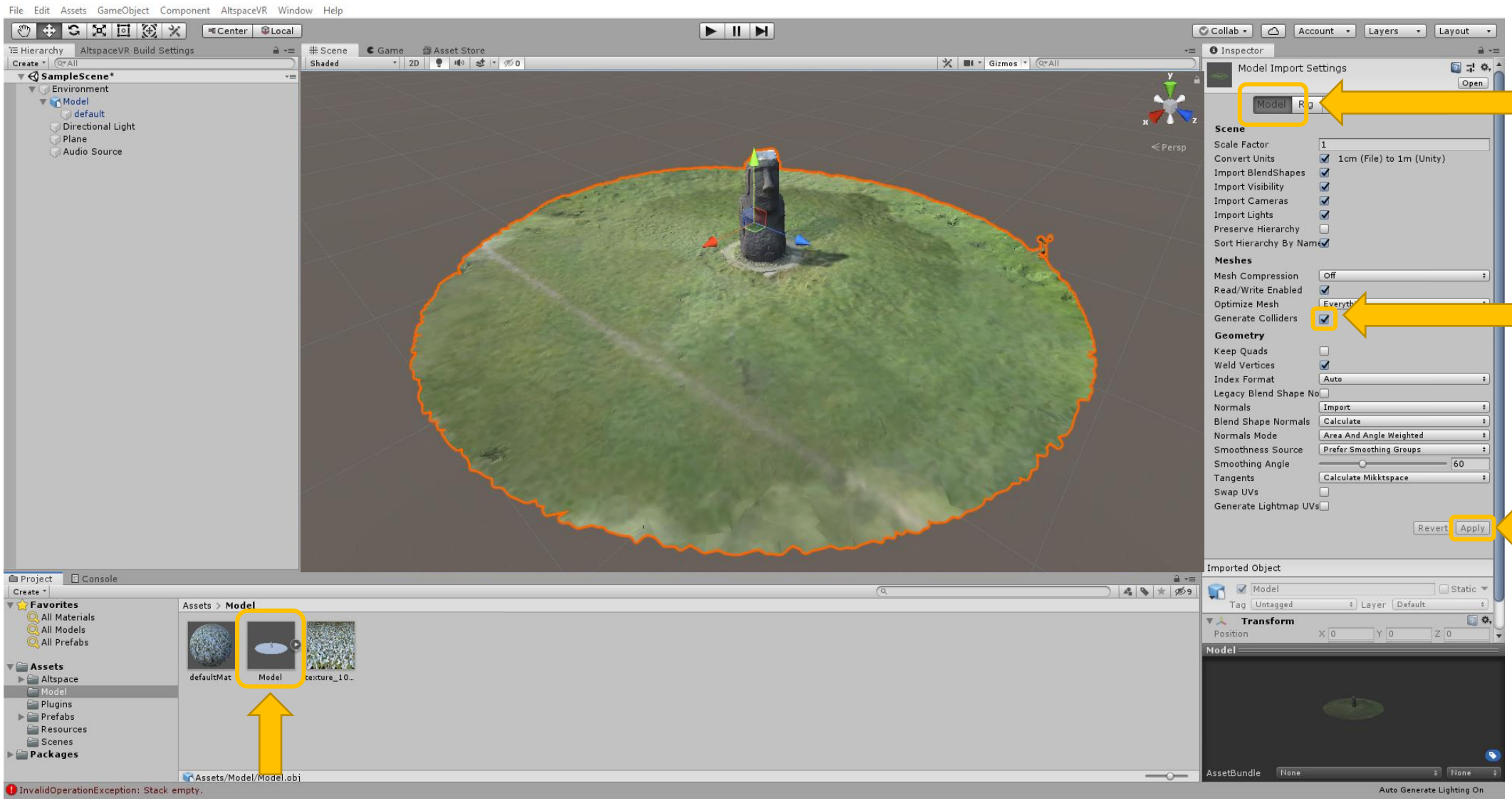
1. Drag and drop the “Model” file into the “Hierarchy” window



Scale the model to make it bigger or smaller on the X, Y, and Z scale. You can also change its position and rotation

Alternatively use the move scale and rotate functions appearing above the “Hierarchy”

Using Unity – Making the model solid



2. In the “Inspector” window, select “Model”

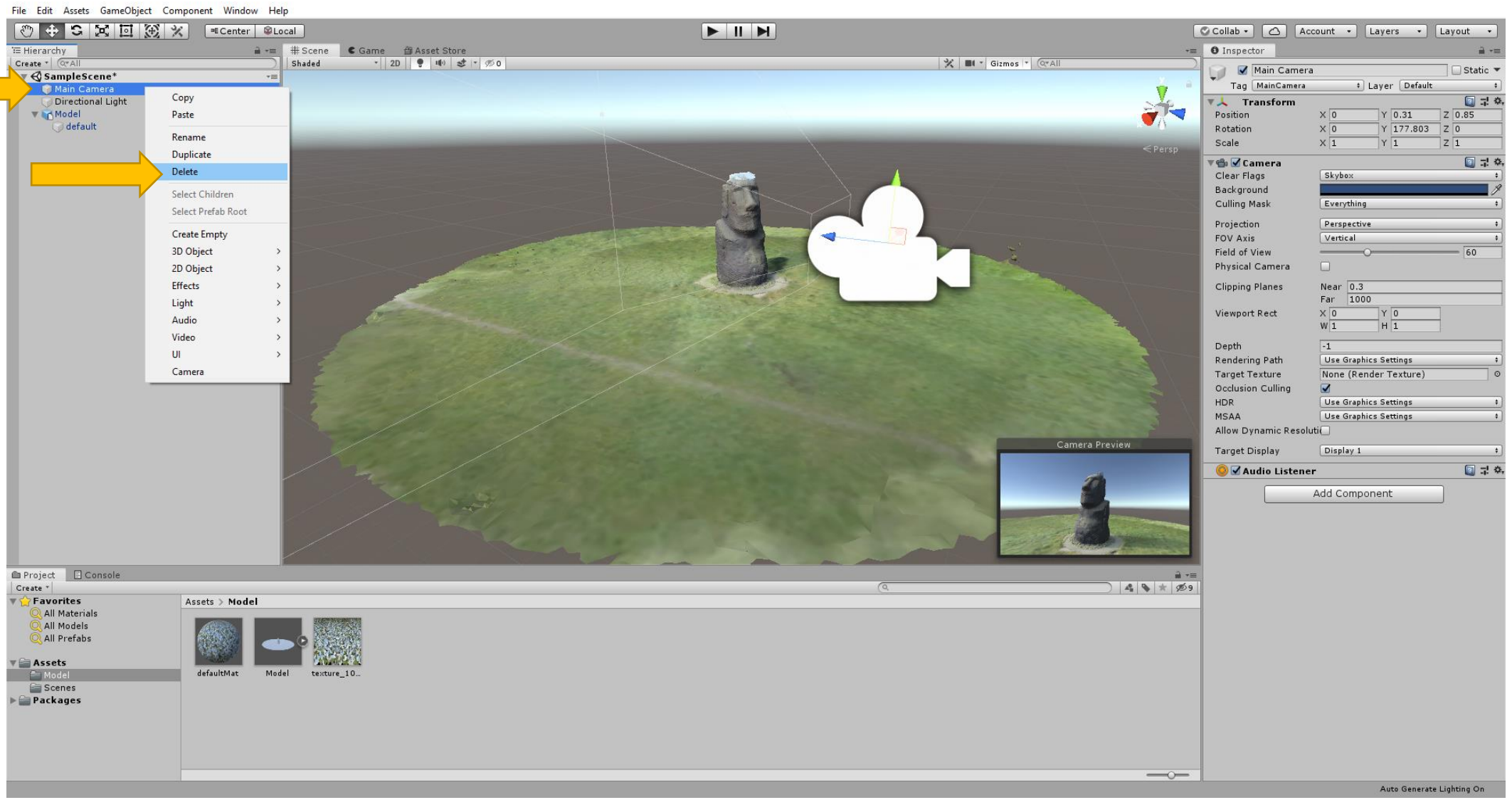
3. tick “Generate Colliders”

4. Click “Apply”

1. Select the “Model” in the “Project” Window

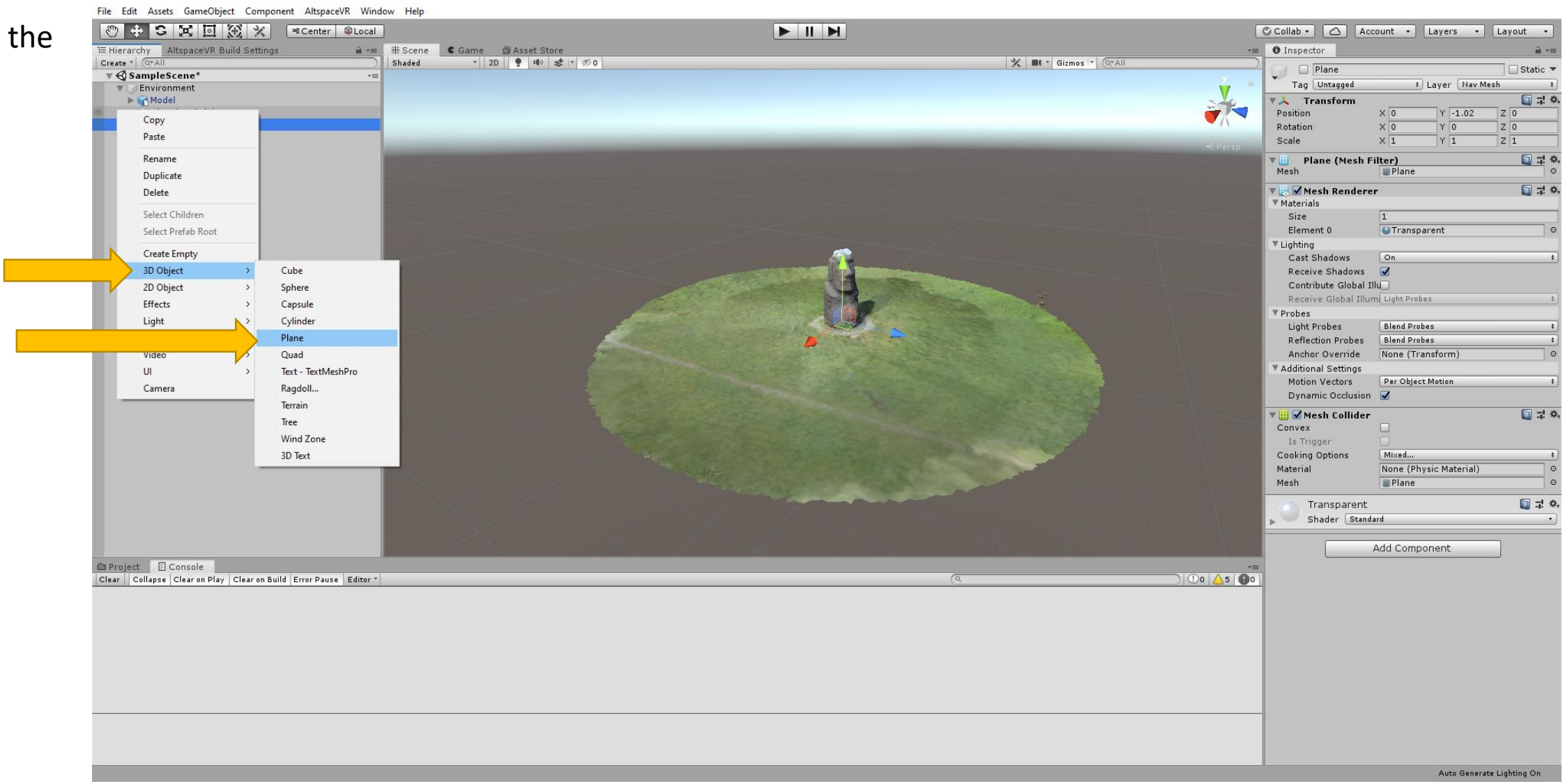
Using Unity – Delete the camera

Delete the “Main Camera” by right-clicking and selecting delete - the camera is not needed because AltspaceVR will provide its own when you upload your scene

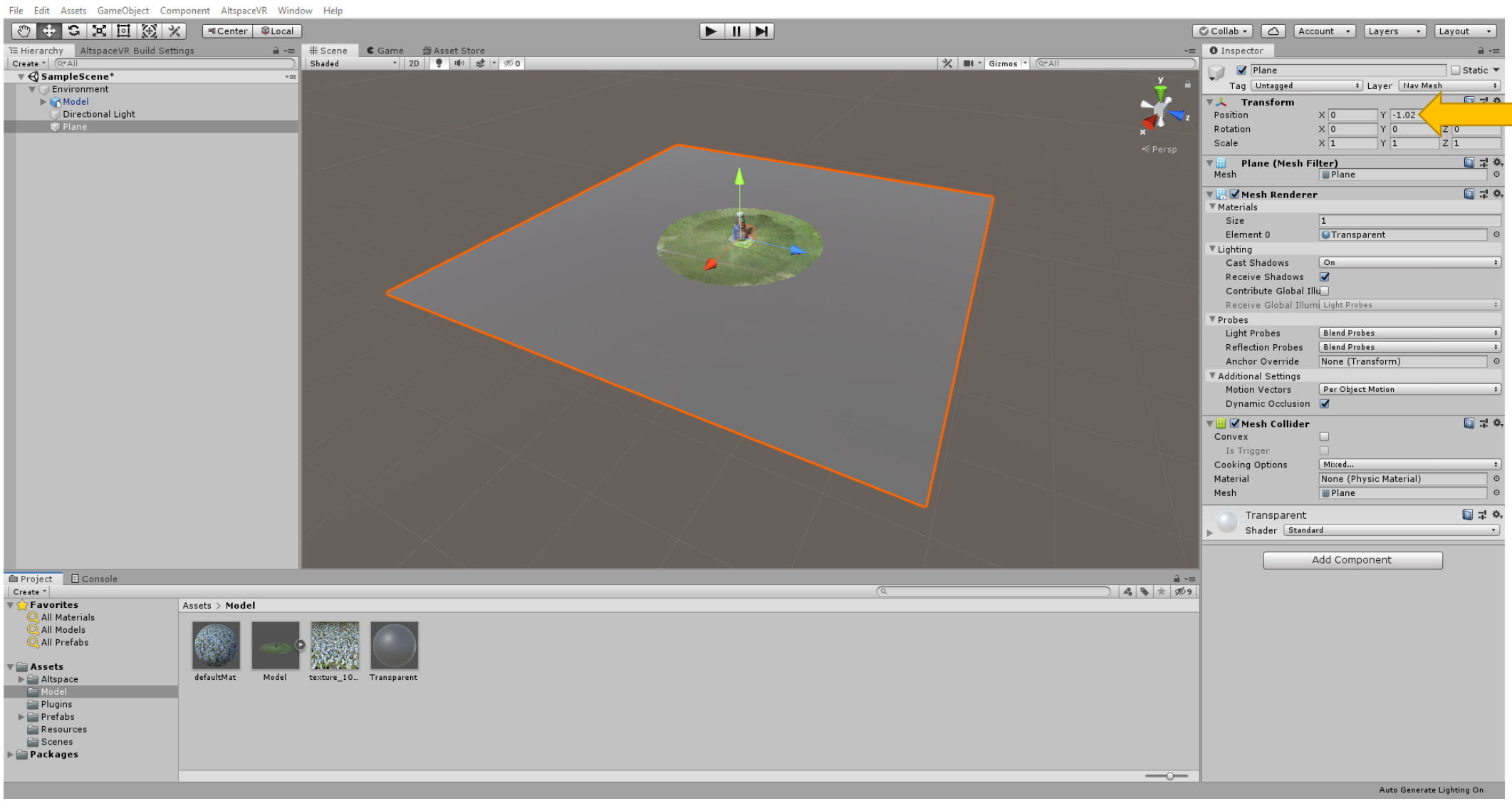


Using Unity – Inserting a plane

Right-click in the “Hierarchy” window and select “3D Object” => “Plane”



Using Unity – Positioning the plane



Position the new plane just under the model

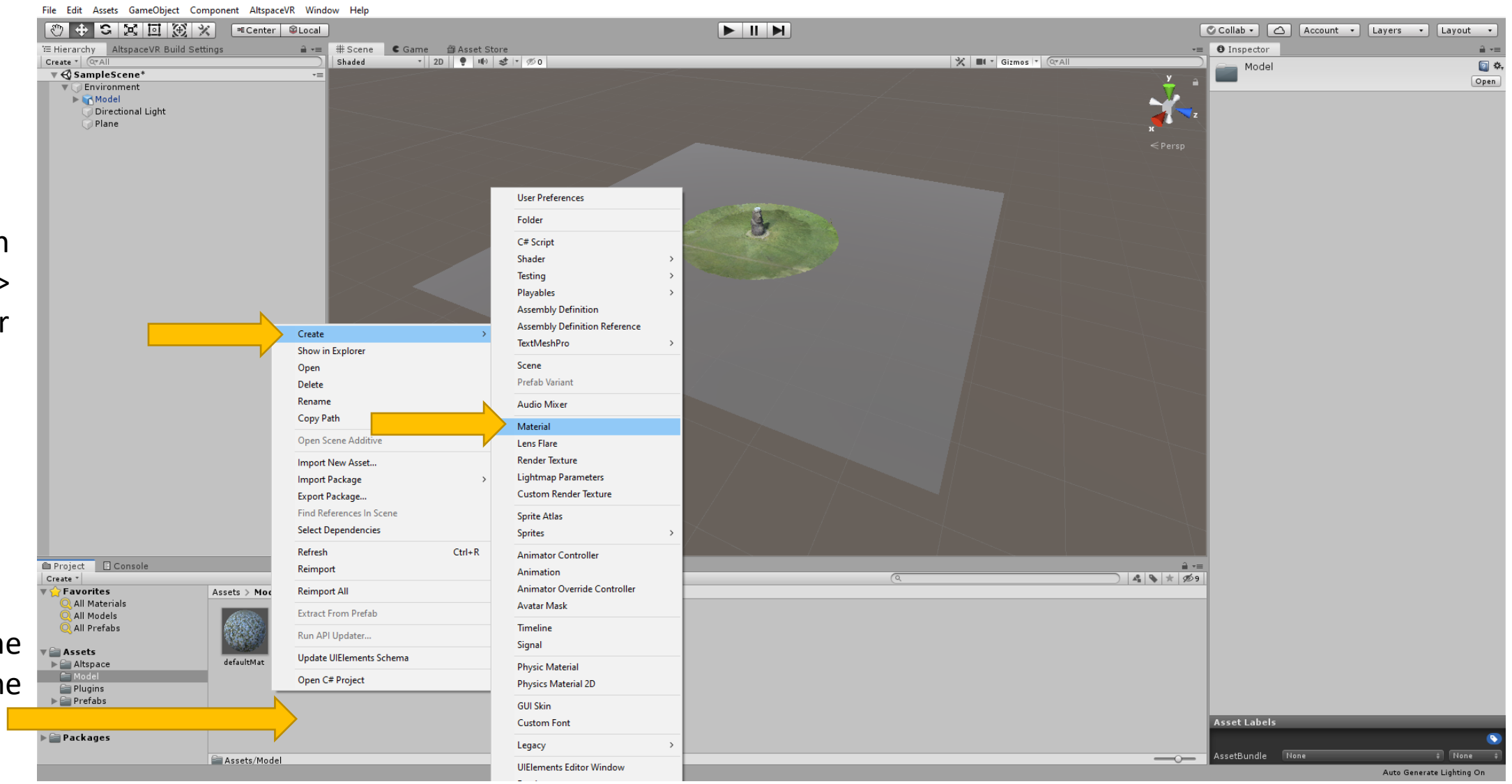
This step will prevent you from immediately falling off the edge of the model in AltspaceVR.

You can scale the plane to suit your scene.

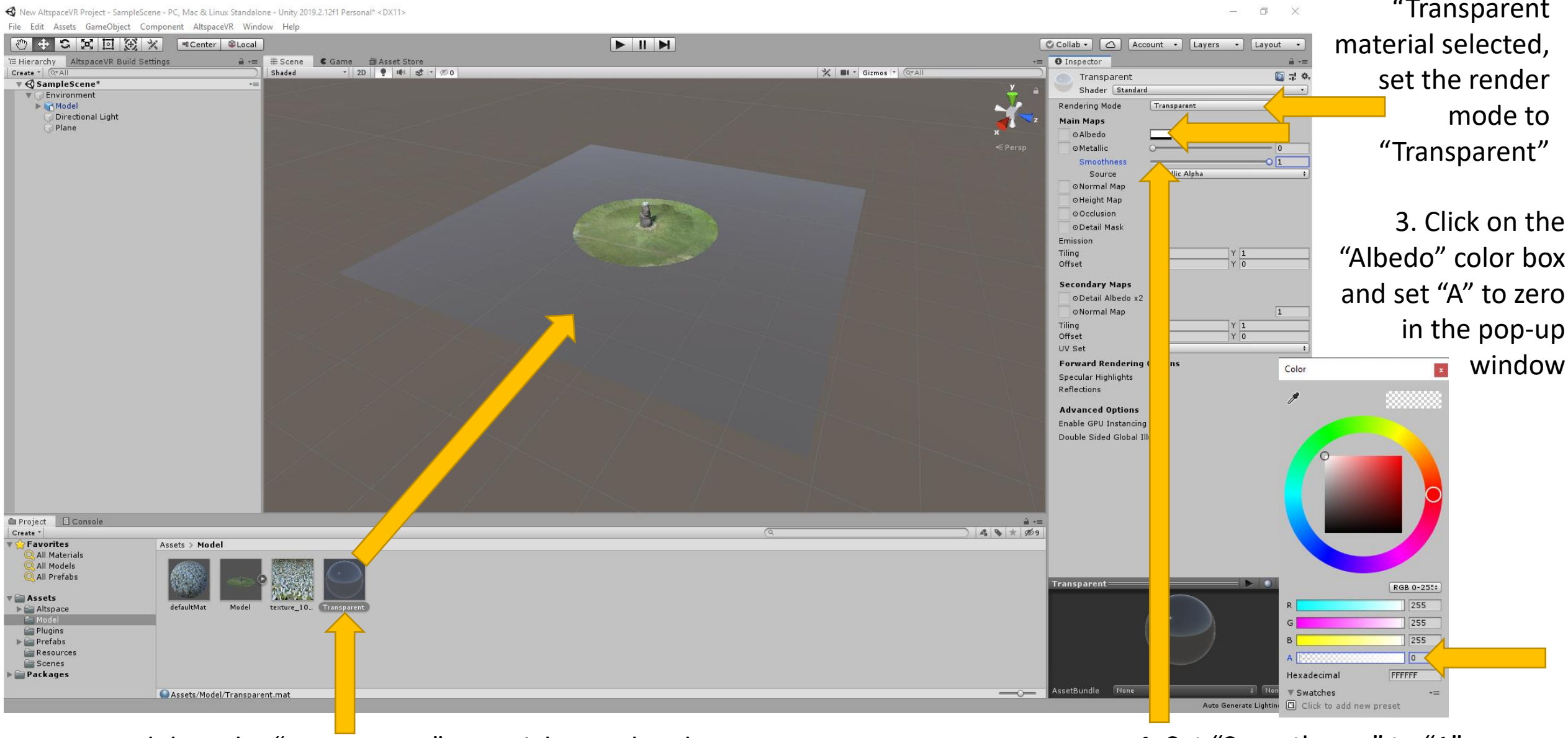
Using Unity – Customizing the plane

1. Right-click in the “Assets” => “Model” folder and select “Create” and “Material”

2. Left-click on the new material’s name and rename the material “Transparent”



Using Unity – Customizing the plane



1. Drag and drop the “Transparent” material onto the plane

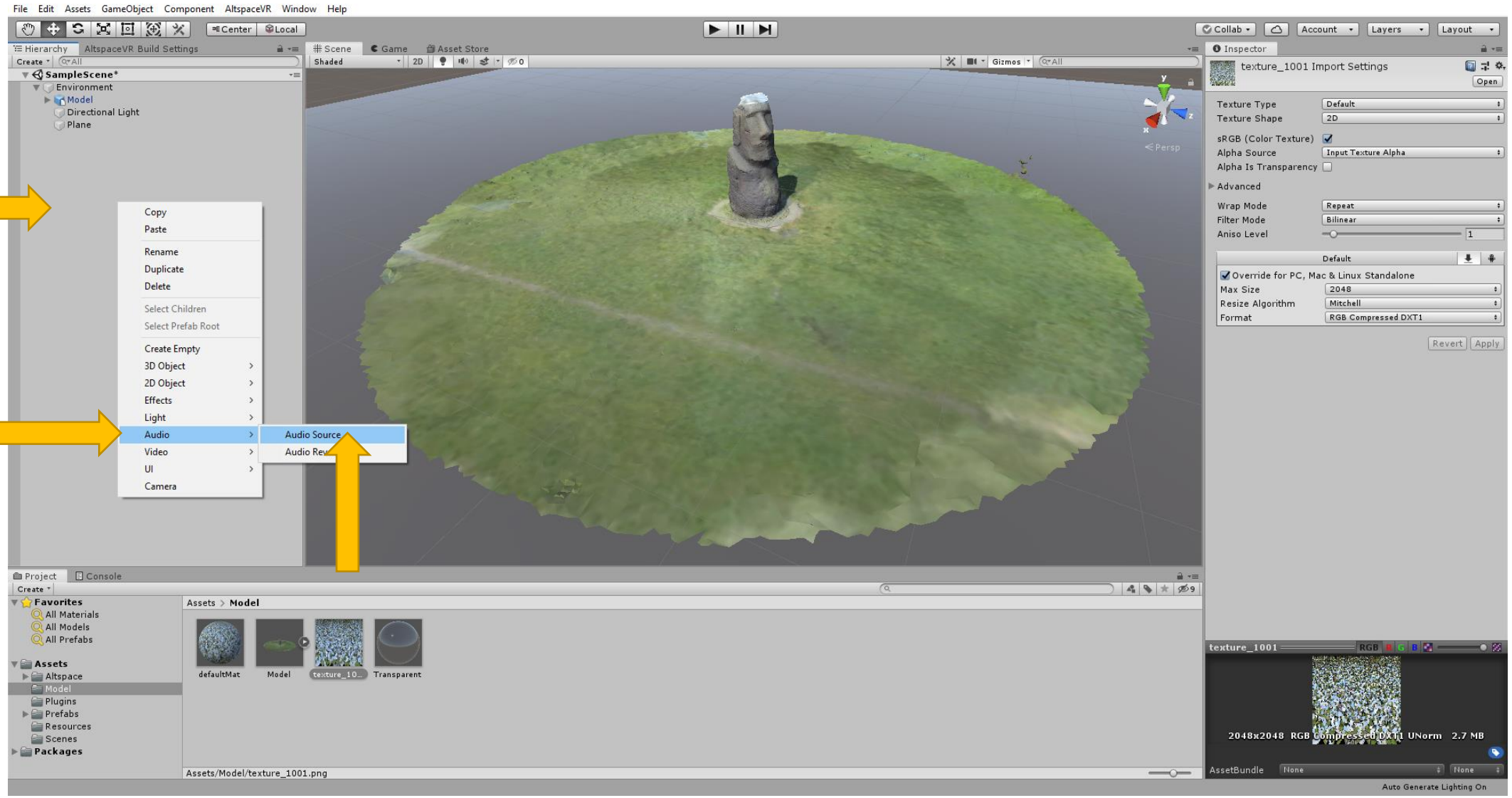
2. With the “Transparent material selected, set the render mode to “Transparent”

3. Click on the “Albedo” color box and set “A” to zero in the pop-up window

4. Set “Smoothness” to “1”

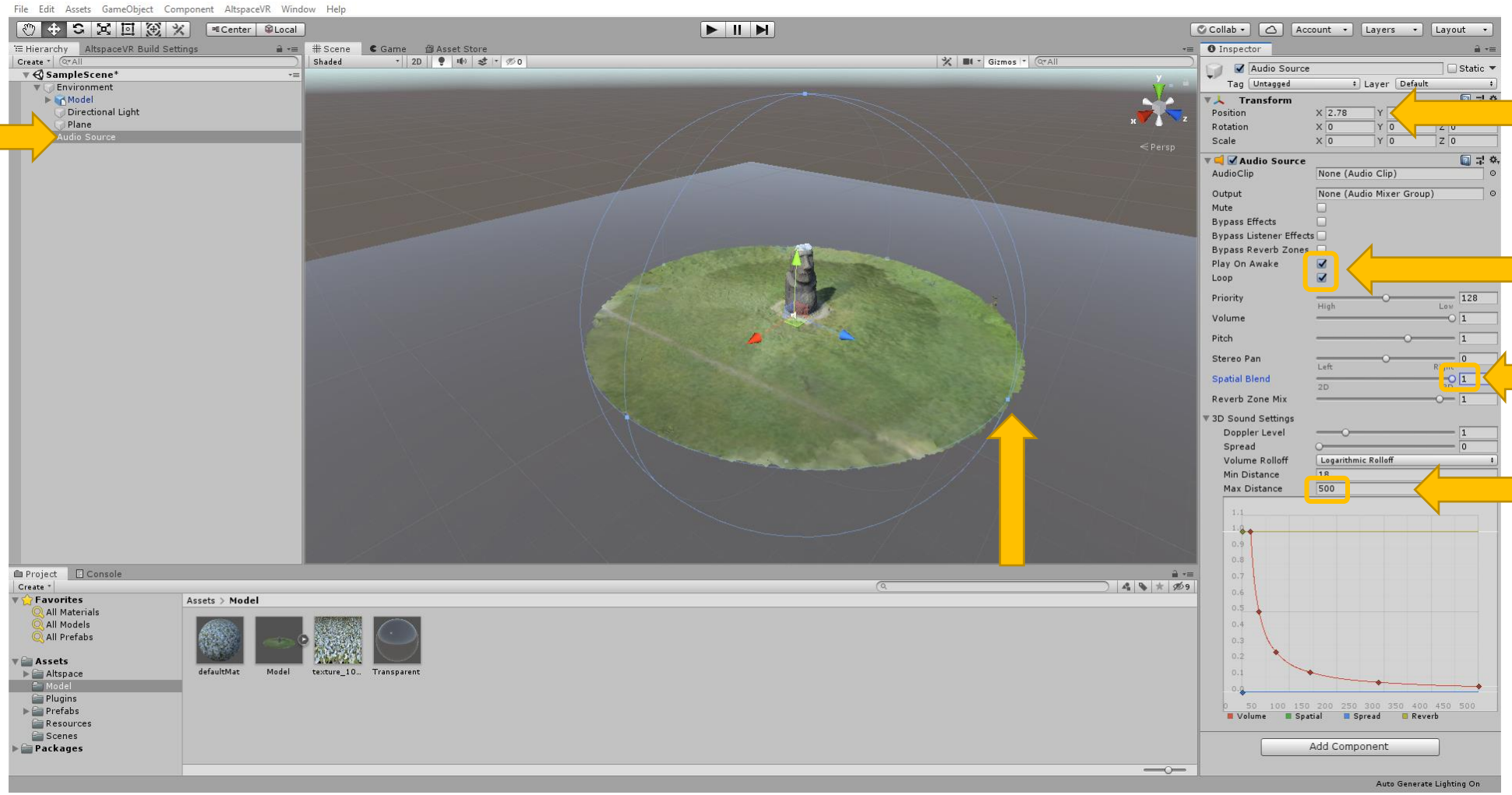
Using Unity – Setting up for audio

Right-click in the “Hierarchy” window and select “Audio” => “Audio Source”



Using Unity – Setting up the audio object

1. Select the “Audio Source” in the “Hierarchy” window



2. Position the audio object to the center of the model

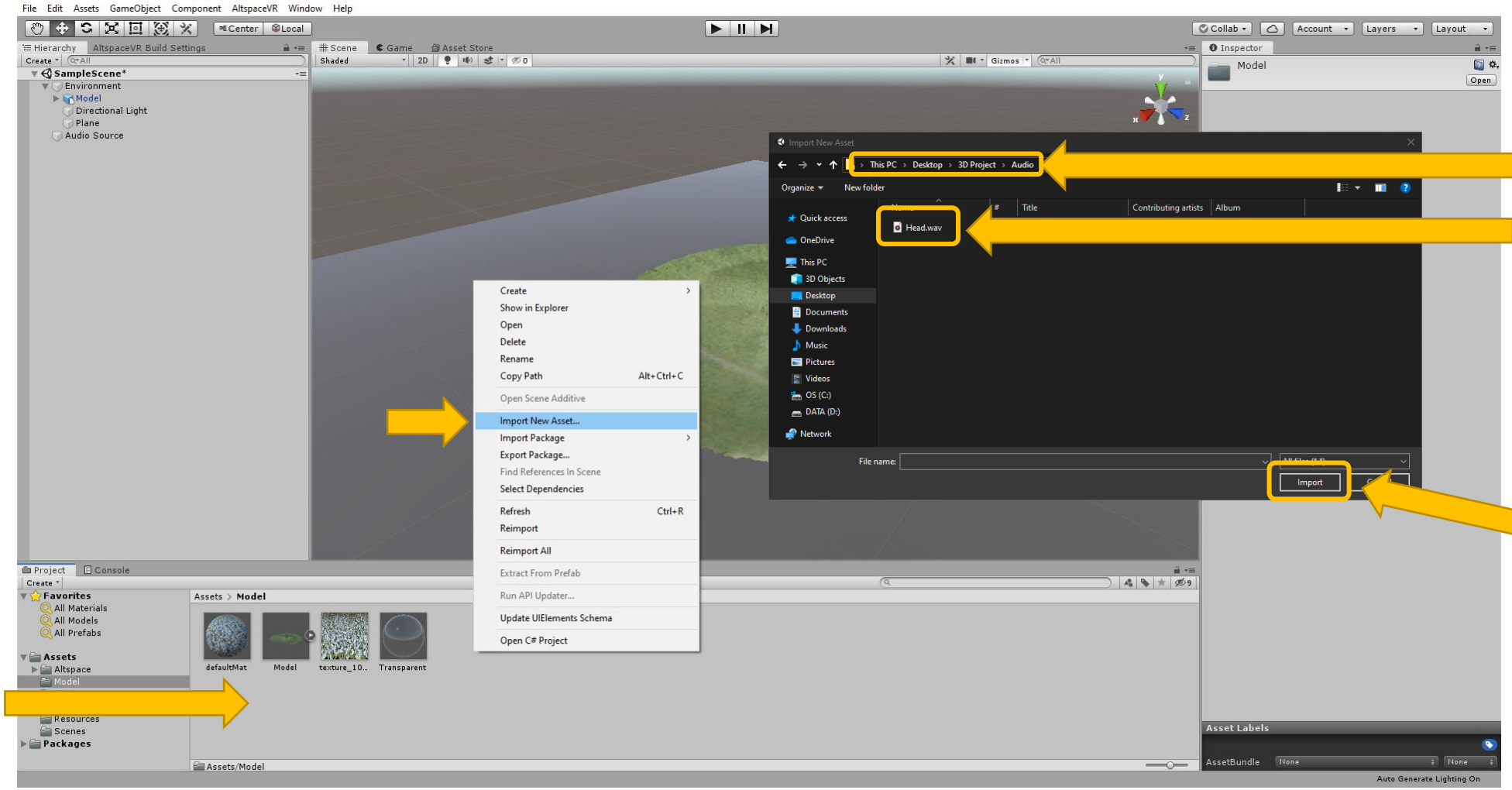
3. Tick Both “Play on Awake” and “Loop”

4. Set “Spatial Blend” to “1”

5. Set the “Max Distance” to reach the edge of the model

Using Unity – Importing audio

1. Right click in the Project window, and select“Assets” => “Model” => “Import New Asset”

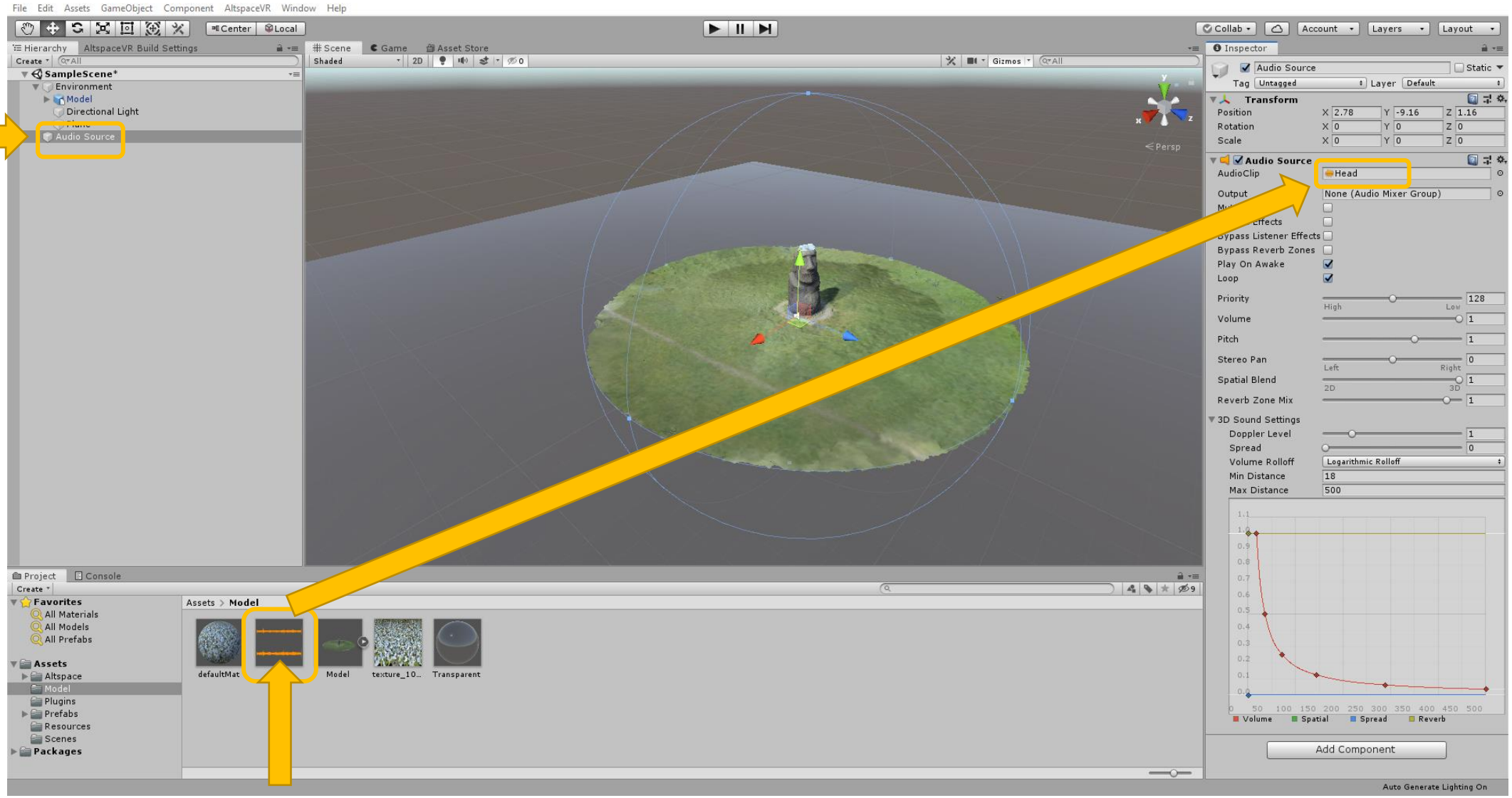


2. In the pop-up window, navigate to “Audio” folder in “3D Project” and select your audio recording from earlier

3. Click “Import”

Using Unity – Importing audio

1, Select the “Audio Source” in the “Hierarchy” window



2. Drag and drop the new audio file to the “AudioClip” box in the