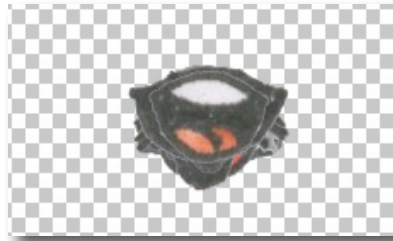


Create a Photoshop or Illustrator document with layers for each mouth shape that correspond to a separate phoneme. Make sure to include a closed mouth shape for when a character is either not talking or is making a sound that doesn't require them to open their mouth.

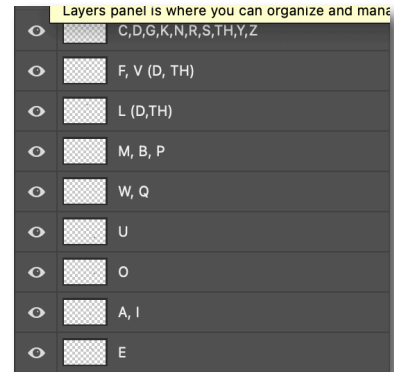
Mouth shapes, **separated**.



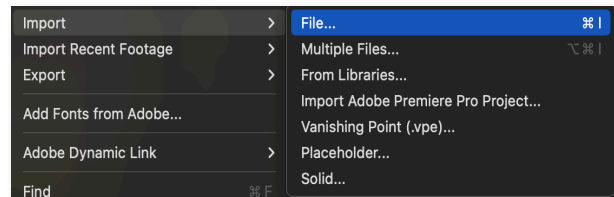
Mouth shapes, **layered**.



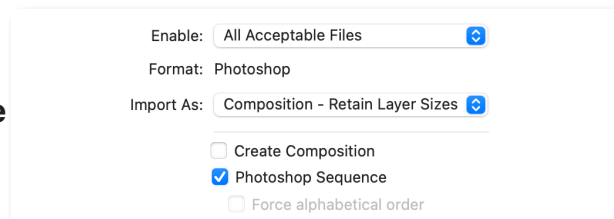
Layers organized by **phoneme**.



Import your PSD or AI (Illustrator) file directly into After Effects by going to **Import > File**.

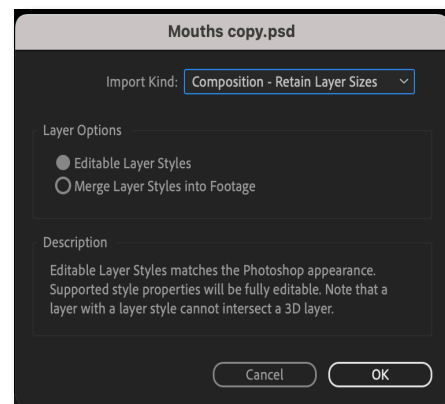


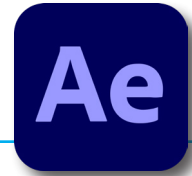
In the file import window, set **Enable** to **All Acceptable Files**, **Import As** to **Composition - Retain Layer Sizes**, and then **check the box** for **Photoshop Sequence** (if the file is from Photoshop).



In the following import window, set **Import Kind** to **Composition - Retain Layer Sizes**.

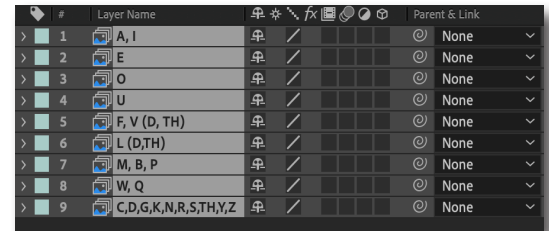
For **Layer Options**, use **Editable Layer Styles**. Select **OK** when ready.





After creating a new composition for your character, you will want to select all the mouth shapes and pre-compose them (bring them to a separate composition that corresponds with just one layer of this composition).

Click and drag over your mouth shapes to select them all.

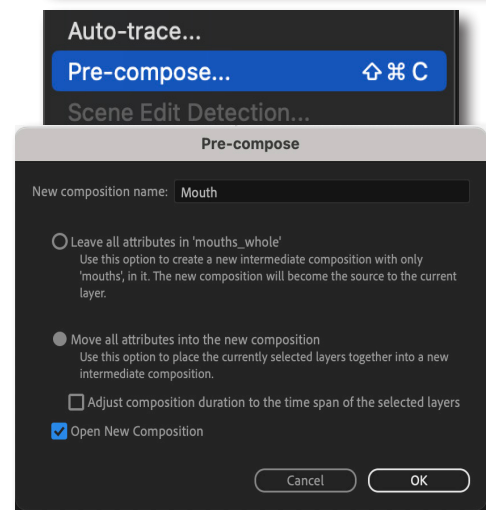


From the top menu choose **Layer > Precompose**.

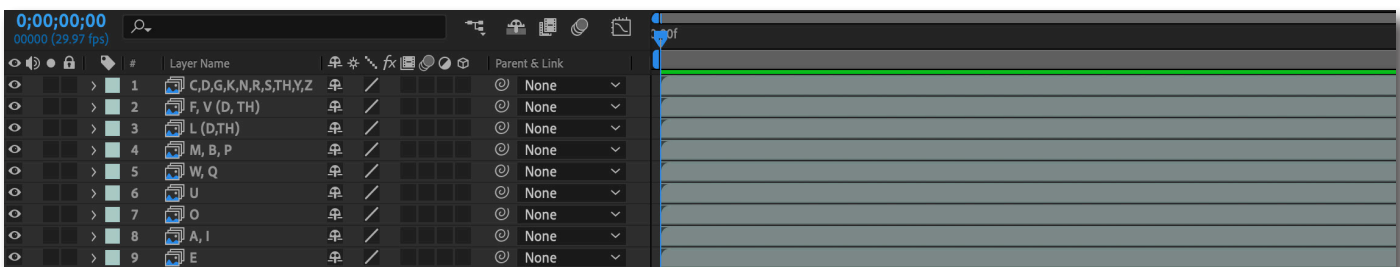
Precomposing will collect all these layers into a separate composition.

Give your composition a name and then select the box for **Move All Attributes into the New Composition**.

Click **OK**.



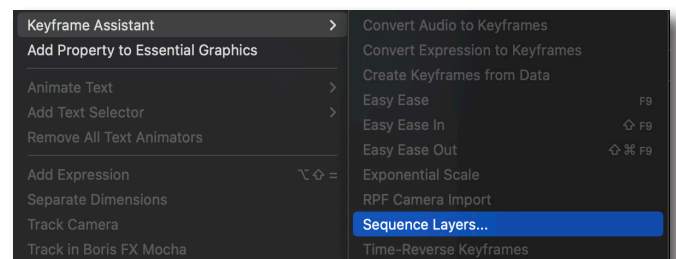
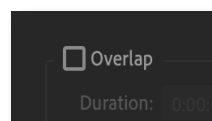
Within your new Composition, trim the layers so that they are each only one frame in length. Use **Alt +]** on **Frame 1** in the timeline as a shortcut.

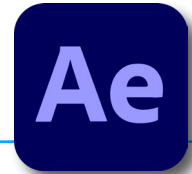


In order to see your frames one at a time, rather than overlapped on top of one another, you'll need to **Sequence** your layers.

With your layers selected, go to the top menu and select **Animation > Keyframe Assistant > Sequence Layers**.

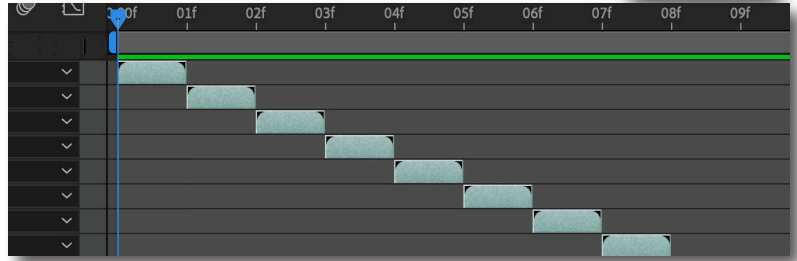
De-select **Overlap** in the dialog box.



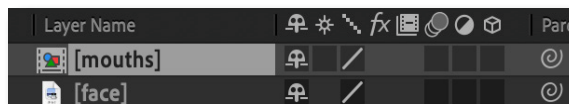


As you can tell by scrolling across the timeline, each frame now has a different mouth shape, with one layer representing all the shapes.

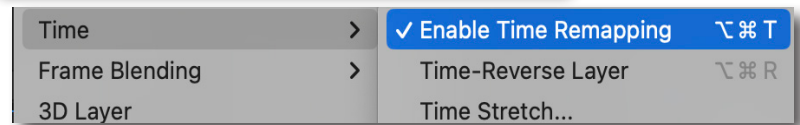
We will now learn how to *time remap*, so that we can call upon the different mouth shapes when we need them.



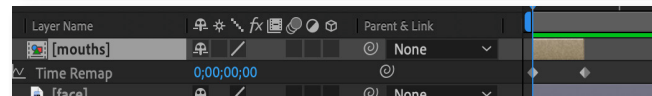
Select the mouth composition layer in your original composition...



...and then from the top menu select **Layer > Time > Enable Time-Remapping**.



This creates a key frame at the beginning and the end of your composition.



In **Time-Remapping**, each frame of footage is assigned a time-Remapping value.

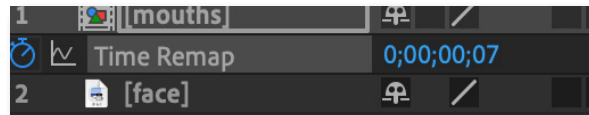
That value is = to the original frame number.

Frame 23 has a Time-Remapping value of 23.

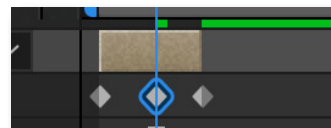
In this case, each mouth shape is at a different frame and each mouth has been assigned a value.

These values can be called on by typing their value.

For example, if I want mouth number 7 at a particular frame, I just type in the number 7.



This places a new keyframe at this point in time, which brings up that frame.



After Effects interpolates what happens in between key frames. It adjusts time (how fast your mouths are cycled through) so that it gets from one mouth key frame to another. You already made all the in-betweens; you are now setting where you want the key frames. After Effects decides at what speed to show the in-betweens to ensure your key frames happen where you want them.

But what if that isn't how we designed the mouths?

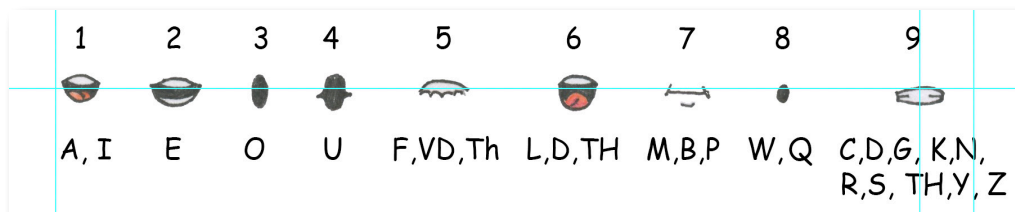
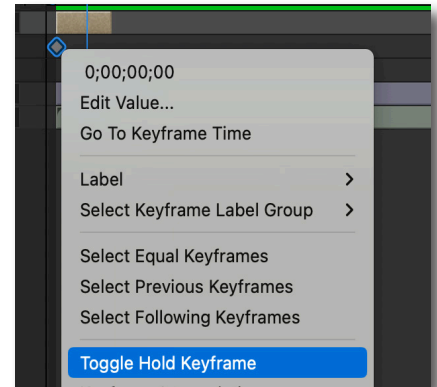
In this example, they each just a separate mouth representing a sound, not a cycle of mouths. So let's use time-remapping and key frames to our advantage.



Delete all but the first key frame,
and make that key frame a *hold key frame* by right-clicking
on the first key frame and selecting **Toggle Hold Keyframe**.

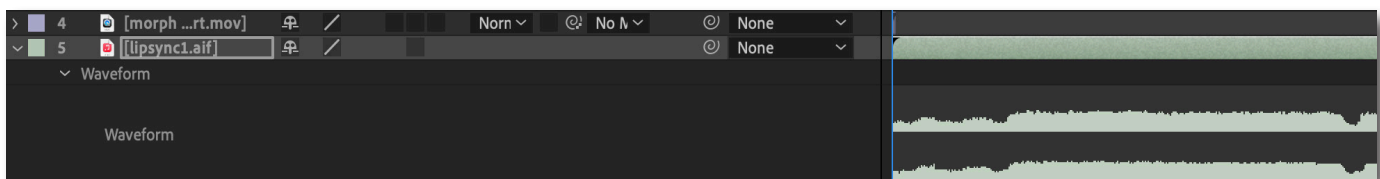
This gets rid of interpolation and instead
holds that keyframe until told to do something else.

Now you can call up another frame at another point in time and
the key frame will also be a hold keyframe. By going through the
timeline and selecting when you want the mouth to change, you
can animate the mouth.



It might be helpful screen grab or print out a cheat sheet of all the mouths and their corresponding frames.

Finally, **Import** your audio file of recorded speech into After Effects and **drag** it into the timeline. Next, **select** the audio layer and hit **LL** to show the waveforms.



Hit the **Period key** (.) from the **number pad** to play audio.

Hold **Cmd** as you scrub across the timeline to hear what you are scrubbing over.

You are now ready to go through the audio, choosing what mouth shape fits each sound, putting a hold key frame on the time remap effect of the pre-composed mouths layer that calls up each mouth as you want them.

Try to use only one key frame every three frames, or it won't be as smooth as real speech. Bring the mouth to resting position when there is no speech.

You can use this same technique for eyeblinks.