

BRING SCIENCE TO THE HANDS OF LEARNERS

3D PRINTABLE MODELS

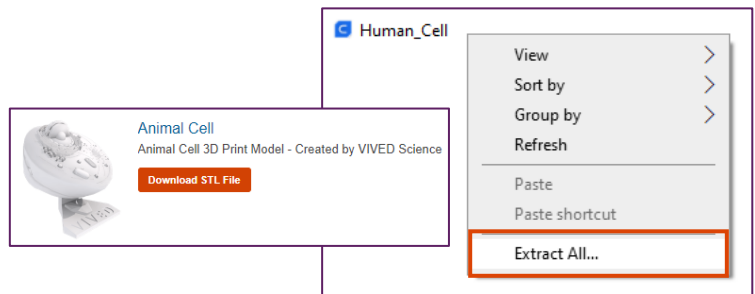
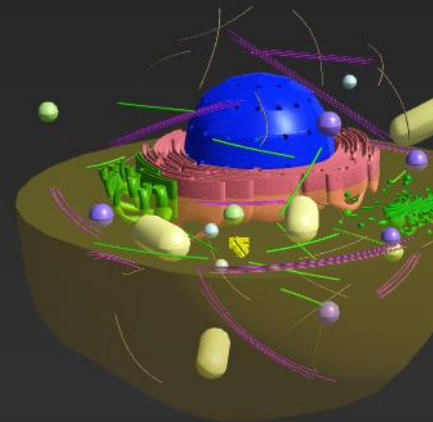
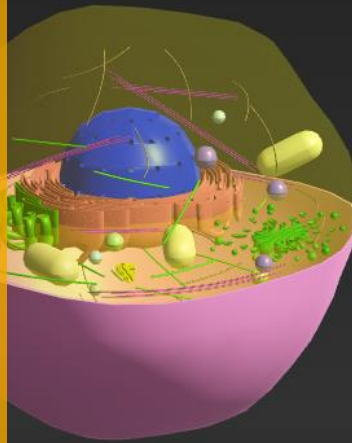
Download the zip file from the 3D Printable Models page, then **extract** the .stl file.

To print the model, load the .stl file into 3D print software called a **slicer**. Some printers come with programs tuned for the machine; however, free and commercial software is also available that works with most 3D printers, each of which loads .stl files.

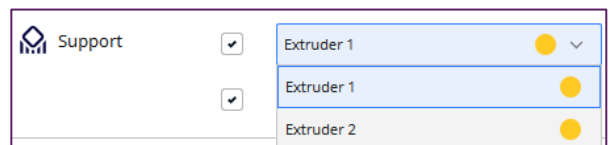
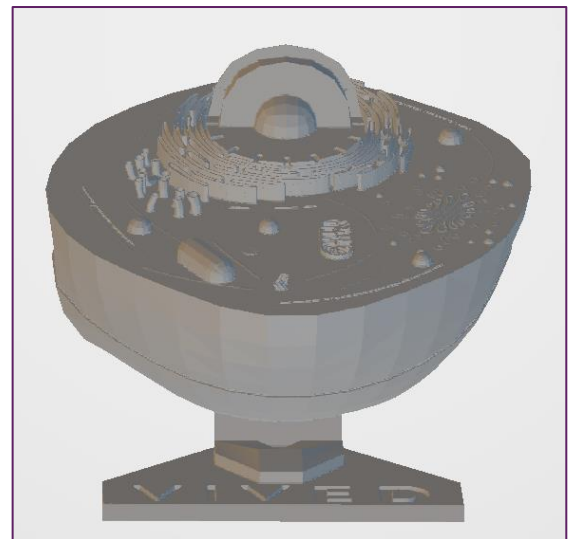
Choose what **quality** and **material** you want to use. This depends on what is available on the 3D printer you're using, such as PLA or ABS plastic.

You can also choose **scale**, **rotation** and **number** of copies to be printed at a time.

Select the option to generate or use **support material** to help support the 3D model as its being printed—you will remove this after the model is printed.



- ABS
- Breakaway
- CFF CPE
- CFF PA
- CPE
- CPE+
- GFF CPE
- GFF PA
- Nylon
- PC
- PETG
- PLA
- PP
- PVA
- Tough PLA
- TPU 95A



**view may vary based on software being used*

If you are having difficulty printing large 3D models or your computer is unable to slice dense .stl meshes, you can use a free software application called Autodesk Meshmixer to create lighter weight versions for easier printing.

Visit this link to download <http://www.meshmixer.com/>

To adjust high-resolution 3D models for use on lower spec computers, open Meshmixer and select the **Import** icon to load your 3D mesh (the .stl file).

Next, select the **Edit** tool on the left side of the screen and select the **Make Solid** icon. In the solid type dropdown, select **Accurate**.

On the **Solid Accuracy slider**, choose a number value between 0 and 512. (Try 128 or below on slower systems.)

On the **Mesh Density slider**, adjust the value between 0 and 512. (Try 128 or below on slower systems)

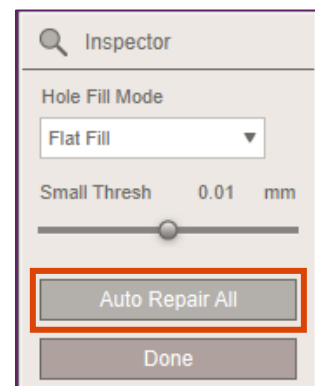
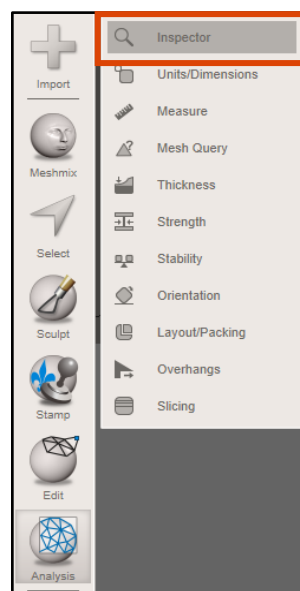
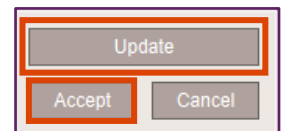
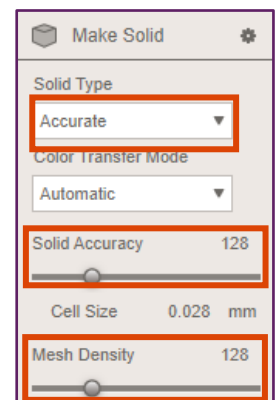
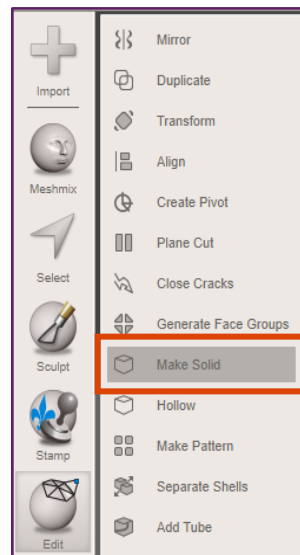
Once your quality is selected, click **Update**. If you like the appearance of the mesh, click **Accept**. If the mesh is too blocky or rounded, adjust to suit your preference.

Click on **File > Export** and enter new name for your new, lighter model.

You can now load this new model into your slicing program, or you can use Meshmixer to print directly to your 3D printer.

Depending on the hardware and slicing engine, you may have to fix the mesh using the **Analysis > Inspector Tool**.

Click **Auto Repair All** and then **Print**.



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