

# THINGIVERSE CHEAT SHEET

Thingiverse is built on the principles of sharing, learning, and making. It's a community where users from all over the world can download free 3D models and 3D printing lesson plans for any age group or subject.

## **TERMINOLOGY**

Thingiverse®: The largest online 3D printing community and library of printable files, accessible at thingiverse.com

**Thing:** A 3D model uploaded to Thingiverse, this can be a single object or several, and typically comes with pictures and printing instructions

Thingiverse Education™: 3D printing projects and lesson plans for different grades and subjects

Remix: A cornerstone of Thingiverse. This is when a user edits or builds upon a Thing to customize it in some way while providing attribution to the original designer

**Licensing:** Describes how a designer permits the community to use his/her creation (i.e. whether it can be remixed or sold commercially)

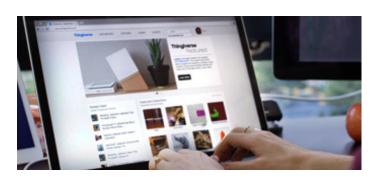
**Makes:** When a user downloads and prints another designer's model, then uploads a picture of it to demonstrate its appearance and printability

**Collection:** A curated folder of Things by users, and a great way to organize Things for your class

**Customizer:** Thingiverse app to design custom objects by manipulating variables. Accessible at thingiverse.com/customizer

**Challenges:** Online competitions held on Thingiverse

**Groups:** Forums that allow you to share ideas and files with like-minded designers



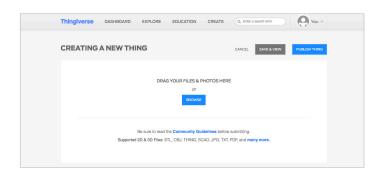
#### **SEARCH AND BROWSE FOR THINGS**

#### To Search Thingiverse:

- 1. Type a keyword into the search field
- 2. Filter & refine search results using the menu bar on the left. Filter by user, popularity, makes, etc.

## To Browse Thingiverse:

- 1. Click on the Explore button, then select Things
- 2. Thingiverse will show you recently uploaded Things
- 3. Select different categories and filters from the drop down menus in the top left corner



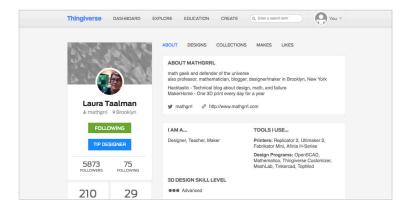
#### **UPLOAD YOUR OWN THING**

Whether you are a novice 3D modeler or a professional, you can share your files with the community!

- 1. In the top right, click Create -> Upload a Thing
- 2. Upload your 3D files (STL, OBJ, etc.) and a picture of your successful 3D print
- 3. Add a short description, and click Publish Thing

Note: Uploading to Thingiverse Education requires additional information

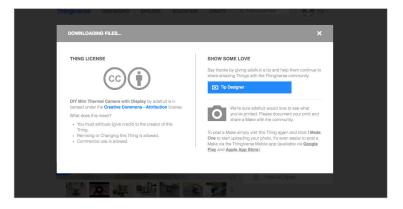
# **(III)** UNIVERSITY



#### FOLLOW USERS AND WATCH YOUR DASHBOARD

Following users is a great way to show support for your favorite creators! It also means that whenever that user creates a Thing you will be notified in your Dashboard.

- 1. When looking at a Thing, click on the designer's username or icon to view their profile. You can also search for a specific username
- 2. Once in their profile, click Follow
- 3. Your dashboard will now display activity from the designer



#### FIND PRINTABLE THINGS

Thingiverse has millions of models, sorting through to find reliably printable models can take time. Here are some indicators that you will be able to print a Thing successfully:

- ) The original designer uploaded a picture of the printed part, not just a render
- > Other users have uploaded Makes
- ) The comments suggest that others have successfully printed this Thing
- > The Thing has a verified badge



# HERE ARE SOME SUGGESTED USERS TO FOLLOW:

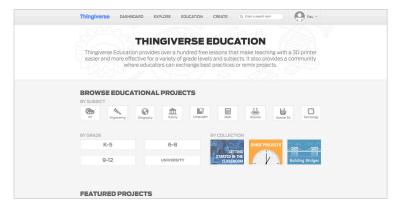
- TheNewHobbyist has a variety of exciting models for everyone.
- Mathgrrl makes math based parametric customizers.
- Emmett is one of the first all star designers on Thingiverse.
- gzumwalt specializes in fun assemblies and mechanical movements
- > LeFabShop has many3D prints that explain3D design theory.



#### **JOIN A GROUP**

- Classroom 3D: active group for educators using 3D printers.
- Engineering: for engineers, technical folks, and makers alike.
- OpenSCAD: for anyone interested in learning parametric modeling and Customizer.
- Arduino: for anyone looking to incorporate arduinos into 3D printing.

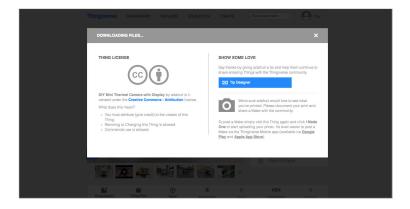
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#### THINGIVERSE EDUCATION

A special part of Thingiverse just for educators. Thingiverse Education has 3D printing lesson plans sorted by subject, grade, and standards. From here, you can:

- > Search grade and subject-specific 3D printing lesson plans
- > Interact with other teachers using 3D printing
- ) Upload your own lesson plans that teach 3D printing in the classroom  $\,$



## **CHECK THE LICENSE**

Be mindful of the licensing features that the original designer has chosen when downloading and printing 3D models. In some cases, you are free to use the model however you'd like. However in others, you may not be allowed to remix or use the model commercially, such as selling prints of the model. In all cases, you must provide attribution to the designer, especially when you remix another designer's model.



# CHECK OUT THESE GREAT THINGIVERSE EDUCATION PROJECTS:

- Musical Shapes Grades K - 5 thingiverse.com /thing:1753157
- > Speedy Architect Grades 3 - 8 thingiverse.com /thing:1682347
- Rubber Band Gliders
   Grades 6 12
   thingiverse.com
   /thing:1744950