

***For this assignment, you will create an icosahedron net unfolding a 3D icosahedron.***

## Tips

### 1. The Unfold Tool:

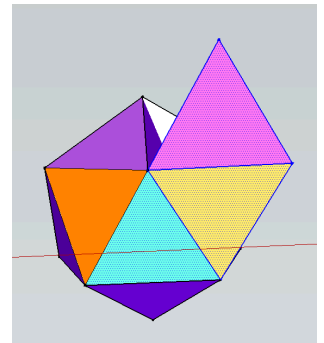
To retrieve: Go to the Plugins menu and select the Unfold Tool.

To use: This tool works by *selecting twice*.

- The **first face(s)** you select is the one that will be "unfolded".
- The **second face(s)** you select lies in the plane that your first selection will be unfolded to.

Tips for using the Unfold Tool:

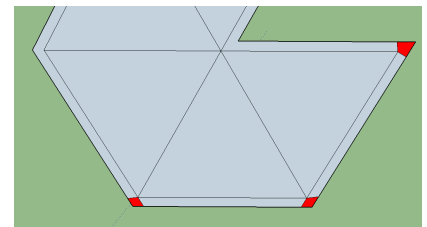
- *It's easiest to complete this project if you use the orbit tool to help you navigate throughout the process.*
- Remember to always go back to select unfold tool to continue.
- Be sure that only the faces you want to unfold are selected when using the unfold tool.
- Problem? You can always use Command Z!



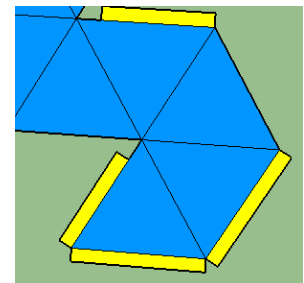
### 2. Create tabs:

There are multiple ways to create tabs for your paper prototype.

**Method 1:** Select all the edges and use offset tool, then use line tool to cut notches into the outline. Erase the notches. What remains will be a tab.



**Method 2:** Make one tab, then make the tab into group. Copy and paste your tab around the object.



### 3. Flatten your net to the XY plane:

How to place random shapes in space and lay them out onto the xy plane

- a) After you have complete unfolding icosahedron, make a flat surface from the top view. Then select you all the shapes, and select the plane you just create with *unfold tool*.

***After flattening your net to the XY plane, give your net a title by using the 3D Text tool.***

### 4. Export your net as a PDF.

There are 3 Steps to export

- a) Select File > Export > 2D Graphic. The Export 2D Graphic dialog box is displayed. Enter a file name for the exported file in the 'File name'.
- b) PDF File (\*.pdf) from the Format drop-down dialog box.
- c) Click the Export button.

When you're done, save as

<Name>\_<Name>IcosohedronNet\_r1\_vA.pdf and submit it via the Google form at [model.nychscl.org](http://model.nychscl.org)