## The PHiZZ Unit

This modular origami unit (created by Tom Hull in 1993) can make a large number of different polyhedra. The name stands for Pentagon Hexagon Zig-Zag unit. It is especially good for making large objects, since the locking mechanism is strong.
Making a unit: The first step is to fold the square into a $1 / 4$ zig-zag.


When making these units, it's important to make all your units exactly the same. It's possible to do the second step backwards and thus make a unit that's a mirror image and won't fit into the others. Beware!

Locking them together: In these pictures, we're looking at the unit "from above." The first one has been "opened" a little so that the other unit can be slid inside.


Be sure to insert one unit in-between layers of paper of the other. Also, make sure that the flap of the "inserted" unit hooks over a crease of the "opened" unit. That forms the lock.

Assignment: Make 30 units and put them together to form a dodecahedron (shown to the right), which has all pentagon faces. Also use only 3 colors ( 10 sheets of each color) and try to have no two units of the same color touching.


