Origami Platonic Solids

In three-dimensional space, a Platonic solid is a regular, convex polyhedron. It is constructed by congruent regular polygonal faces with the same number of faces meeting at each vertex.

The standard way to build platonic solids from paper is to cut out a net and and to then fold and glue the net together. This article attempts to create these solids through origami.

Origami is the art of folding paper to create shapes and is associated with Japanese culture. When creating platonic solids with origami, no scissors, glue or even measuring tape is used; the solid is constructed based simply on folding.

The idea of unit origami is used to make these solids. Unit origami is when many instances of a single piece is made and then assembled together to form more complicated shapes.

Each of these units usually connect together using flaps, pockets or locktabs which are designed to hold the shape together. A flap is a piece of paper that sticks out and mates with a pocket (a similarly shaped hole) while a locktab has some extra paper that wraps around for strength.

There are usually three kinds of basic units.

1. **Face** - These are units that contain only a single face.
2. **Edge** - These are units that have at least one edge and part's of faces.
3. **Vertex** - These are units containing the corner of the model and usually include some face and edge parts.