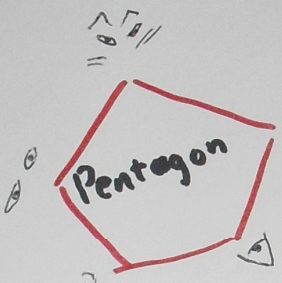
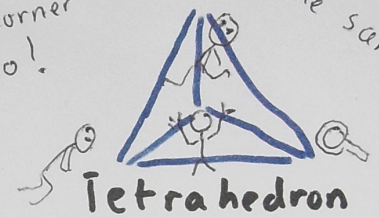
The soccer ball and other Archimedean solids

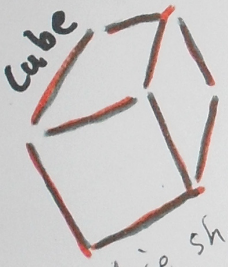


Regular polygons look the same from every corner.

Archimedean solids are 3D shapes made from regular polygons. They look the same from every corner too!

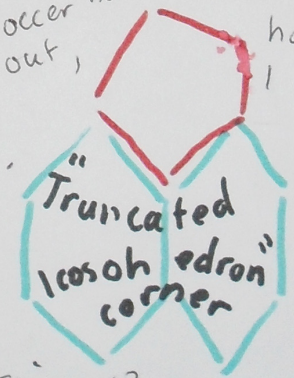


Tetrahedron - the smallest. 3 triangles meet at each corner.

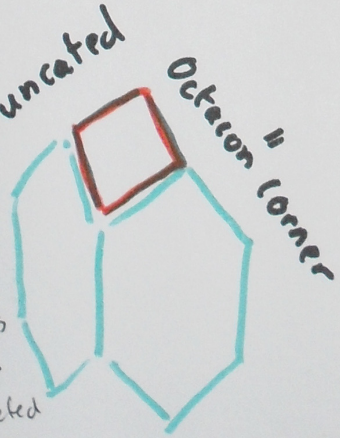


- the dice shape. 3 squares meet at each corner.

The soccer ball shape, before it is rounded out, has 2 hexagons meeting at each corner.



It contains 12 pentagons and 20 hexagons when finished.



This shape has 1 square and 2 hexagons at each corner. It can be completed with 5 more squares and 6 more hexagons. Like cubes, these fit together if you make several!

Other Archimedean solids might make quite good balls, but this is the best. Probably?

For more easy-to-read geometry, try "Platonic & Archimedean solids", by David Sutton*