## Building Regular Polyhedra

Activity 3. The Octahedron
Join four triangles so that they share one vertex. Now join edge 1 with edge 2. Complete the octahedron by adding four more triangles, so that at each vertex you have four triangles meeting.


Activity 4. The Dodecahedron
Join three pentagons so that they share a vertex.

Now join edge 1 with edge 2. You will need nine more pentagons to finish the dodecahedron. Three pentagons meet at each vertex.


## Activity 5. The Icosahedron

Join five triangles so that they share one vertex. Now join edge 1 with edge 2. To finish the icosahedron you will need another "cap" like this, and then 10 more triangles forming a "belt" between them. The icosahedron has 20 triangular faces, where 5 triangles meet at each vertex.


