

Using the Snapology Technique to Teach Convex Polyhedra

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Heinz Strobl created the Snapology technique using strips of paper. In his technique there are two types of strips. The first type, forming the basic structure is called scaffolding. The second is the joining or hinge strip. Joining strips are always 4 squares in length.

The number of squares in the scaffolding structures is twice the number of edges of the polygon which is being formed. Triangular structures are made from strips 6 squares in length. Square structures are made from strips 8 squares in length.

I will go through the families of convex polyhedra showing how they can be constructed using the Snapology technique.

I modified the technique by using 1cm ribbon. Using decorative ribbon makes models which are breathtakingly beautiful and reinforce the underlying geometry. I will show how much ribbon is needed by calculating the number of squares needed to form the Platonic and Archimedean solids.

Creation of the Archimedean solids proves to the student that however complicated the solid, each vertex is exactly like the other vertices.