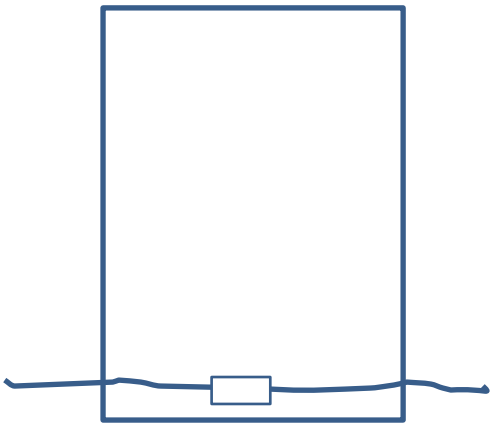
The five Platonic Solids

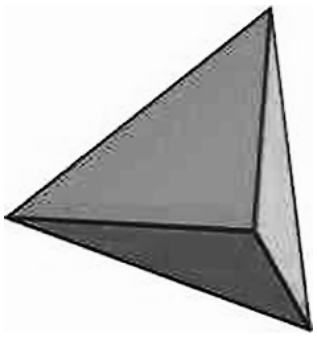
How to make a Tetrahedron, Cube and Octahedron



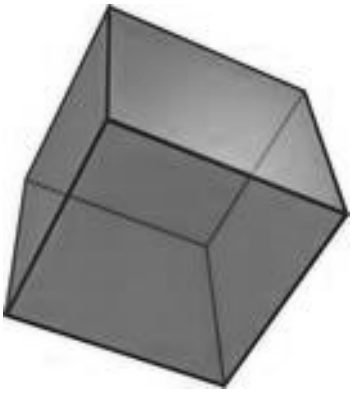
1. Take a piece of A4 paper
2. Place the string at the bottom of the paper, with equal lengths sticking out either side.
3. Attach the string in the middle with a small piece of sticky tape.
4. Roll the A4 paper up from the bottom, keeping it tight.
5. Secure the tightly rolled paper at both ends with sticky tape.

It should look like this.

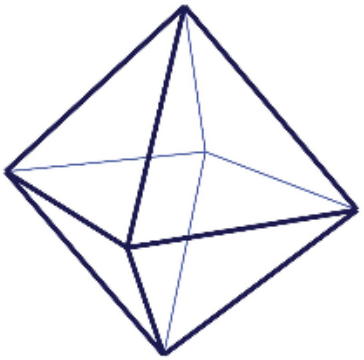
Tie the stringy sticks together to make the platonic shapes below.



Tetrahedron
Make 7 stringy sticks
It has 4 faces.
Each face is an equilateral triangle.
3 triangles meet at each vertex.
It has 6 edges.



Cube
Make 12 stringy sticks
It has 6 faces.
Each face is a square.
3 squares meet at each vertex.
It has 12 edges.

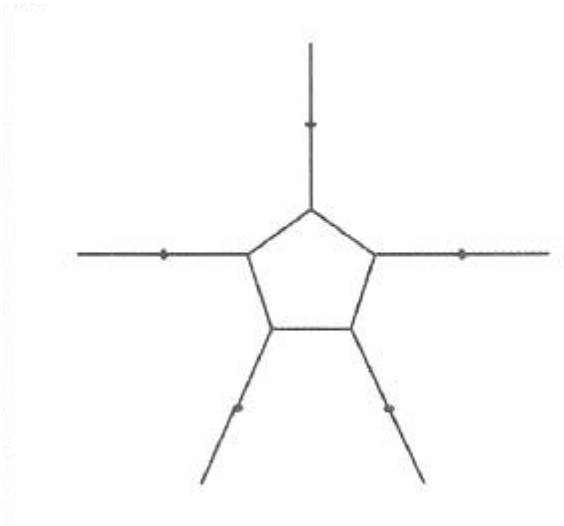


Octahedron
Make 12 stringy sticks
It has 8 faces.
Each face is an equilateral triangle.
4 triangles meet at each vertex.
It has 12 edges.

Dodecahedron
Make 30 stringy sticks
It has 12 faces.
Each face is a regular pentagon.
3 pentagons meet at each vertex.
It has 30 edges.

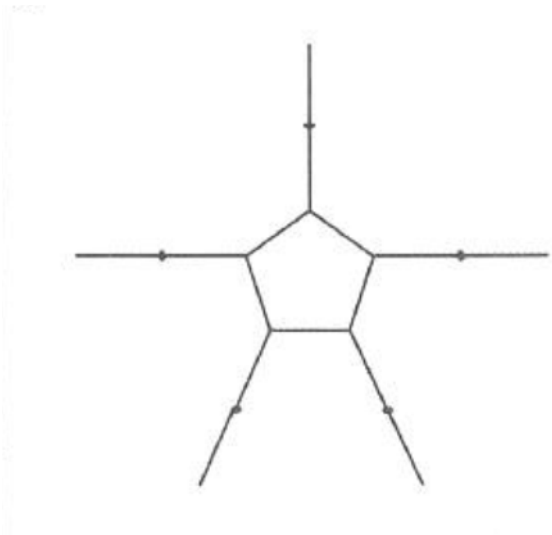
Tie the sticks together making one pentagon in the middle with two sticks coming out as shown in the picture.

Let's call this A



Make another one following the same steps.

Let's call this B.

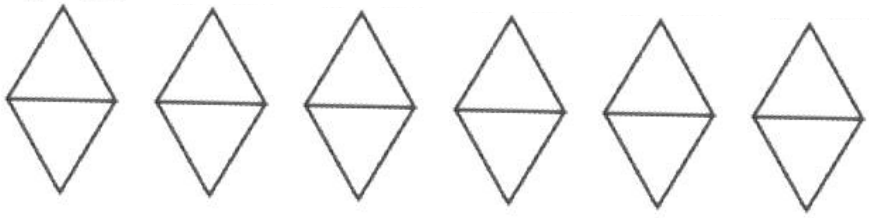


Place A on the table/floor. Hold B above this and bring together so that each vertex is made up of three sticks.

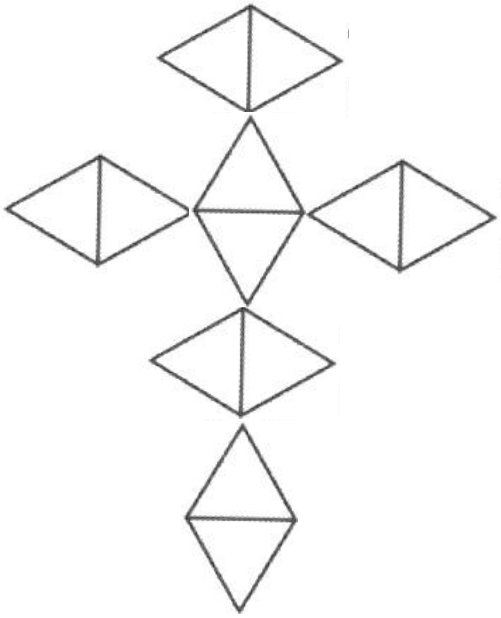
Each vertex must have either one stick from A and two from B or two sticks from A and one from B.

Icosahedron
Make 30 stringy sticks.
It has 20 faces.
Each face is an equilateral triangle.
5 triangles meet at each vertex.
It has 30 edges.

Make 6 rhombuses as shown using 5 sticks.



Make this flat shape using the 6 rhombuses.



Tie it together so that 5 sticks meet at each vertex.