


Draw a square, and design a pattern in the square which has rotational symmetry by 180° . Draw your pattern on each face of the cube marked \square . Draw your pattern rotated by 90° on each face of the cube marked \square . Cut out the net and fold up the cube. What sorts of rotational symmetry does your shape have?

If you draw this pattern: , then the resulting network of lines is the same as the network formed by the edges of a dodecahedron. Can you design patterns that give the edge networks of the other Platonic solids? https://en.wikipedia.org/wiki/Platonic_solid

Extension: Archimedean solids. https://en.wikipedia.org/wiki/Archimedean_solid