Art

Stellated Dodecahedron

Art Standard: Creating, Performing, and Participating in the Visual Arts

Skills, Processes, Materials, and Tools
2.1 Solve a visual arts problem that involves the effective use of the elements of art and the principles of design.

Objective: The student will apply elements of art and principles of design, including the following, to express meaning in works of art:
Color-Shape-Color
Pattern-Rhythm-Movement

Criteria: To make 12 individual triangular pentagrams and attach them together to create this amazing star Shape.

Stellated Dodecahedron is a 12-pointed star.
Each point is a 5-sided triangle or pentagram.

History: In geometry, the **great stellated dodecahedron** is a Kepler-Poinsot polyhedron, with Schläfli symbol {5/2,3}. It is one of four nonconvex regular polyhedra.

It is composed of 12 intersecting pentagrammic faces, with three pentagrams meeting at each vertex. It shares its vertex arrangement with the regular dodecahedron, as well as being a stellation of a (smaller) dodecahedron.

It is the only dodecahedral stellation with this property, apart from the dodecahedron itself. Its dual, the great icosahedron, is related in a similar fashion to the icosahedron.

Materials: Template, 9x12 paper, ruler, pencil, markers, color pencils, crayons, watercolor, and magazines

Step 1: Trace the template 12 times (need 12 copies of the template)
Step 2: Using markers create separate designs on each of the 5 triangles (do this for all 12 shapes) Each design should be unique, thought out, and creative using line, shape, color to create patterns, rhythm, and movement

Step 3: Color each triangle focusing on the Elements of art: Line, Shape, & Color; focus on the Principles of Design: Pattern, Rhythm, and Movement

Step 4: Cut out each piece along the solid lines (do NOT cut on the dotted lines

Step 5: Fold on the all dotted lines

Step 6: Attach each triangular piece to another one by the tabs

Step 7: Glue/tape the flaps folded inward. Attach each triangle to the next one by the flaps

INCLUDEPICTURE "https://lh3.googleusercontent.com/sludgtSLGuAtEsCg9hxCluwH41Nm3ELLc70utmrHRZOIwm23dDcNgx3qYI20V8Bdx1tFtUxNwUyhqRYm4rlFc7wLnr7OjOfmfoV5ZMJJOitWVYliGtCfYQgkWp9YYPcSQ8L50mg" * MERGEFORMATINET