

# Paper Relief Sculpture

(art + geometry)

This lesson involves building a three-dimensional paper sculpture balanced on a single point and focused around the principles of design:

**Contrast** - formed by light and shadow as it affects the plans of the sculpture

**Rhythm** - the repetitive waves formed by staggered heights of the papers, especially as viewed from the side.

**Unity** - created in monochromatic tones

**Pattern** - formed by the careful planning and repetition of design from a single point

**Movement** - formed by lines as the design moves away from the point

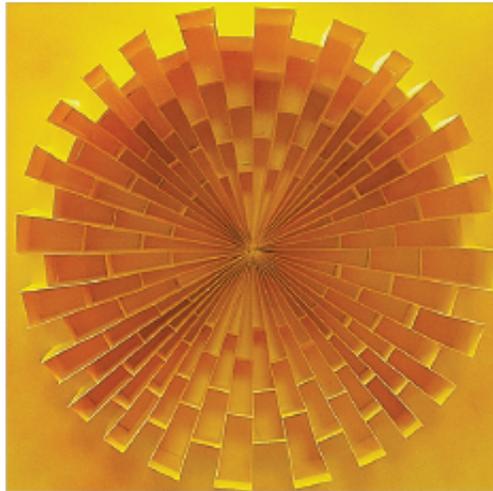
**Balance** - students will build a symmetrical design, exactly the same on all sides of the point.

**Grade Levels** 9-12

*Note: instructions and materials based on a class of 25 students. Adjust as needed.*

## Process

1. Students will create preliminary linear designs that show understanding of the assignment based on the six principles of design. Designs should be executed in pencil on drawing paper. Students will begin with a single point and build their designs out from that point.
2. Selecting their best design, the students will transfer their drawing to illustration board, which will be the base for the sculpture. Students measure lines, angles and curves using rulers, triangles, compasses and french curves.



Top View



Side View

## Materials

[Blick Economy Graphite Pencils](#) (20302-1009), box of 12 pencils, need one per student

[Blick White Sulphite Drawing Paper](#), (10209-1007) 60-lb, 12" x 18" sheets, need one sheet per student

[Helix Shatterproof Plastic Rulers](#) (55463-1012), need one per student

[Alvin® French Curves](#) (55630-7009), set of three, share five sets across classroom

[Blick 10" Triangles](#), 45°-90° (55447-1045) and 30°-60° (55447-1010), three each to share across classroom

[Helix Graduate Bow Compass](#) (55462-1011), share five across classroom

[Blick 14-Ply Illustration Board](#) (13414-1008), 15" x 20" sheet, need one per student

[Blick Economy White Posterboard](#), 5-ply (13109-1102) and 8-ply (13109-1302), need approximately one half sheet each per student

[Blick All-Purpose White Glue](#), 128-oz (23872-1069), distribute into [Detailer Writer Plastic Squeeze Bottles](#) (32929-1009), need one bottle per student

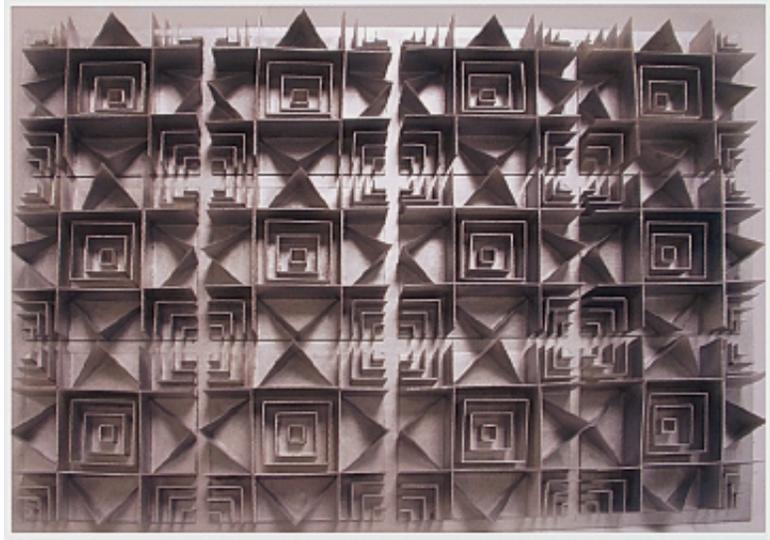
[Fisker's® Student Scissors](#) (57016-1065), need one pair per student

[Montana Gold Acrylic Spray Paint](#), assorted colors (01422-), 400-ml cans, share four across classroom

## Process, continued

3. Before beginning the sculpture, students will need to decide what height they want to cut the strips of paper. The sculpture will need to function from a side view as well as a frontal view. Begin by cutting the tallest pieces and adjust the height of the surrounding ones.
4. Once the pieces are cut and the height is planned, students will then begin to glue down the strips of paper. Start from the center of the design, around the point. Filling fine-point squeeze bottles with glue will allow application of a narrow, even line. Place a single glue line on the illustration board base, then place the cut piece of paper upright into the glue. Hold the piece in place for about 30 seconds. Repeat with the remaining pieces of the design until it is all in place.
5. Once the paper sculpture is complete, students will use spray paint to unify the piece with a single color.  
**IMPORTANT:** Spray paint should only be applied in a spray booth or in a well ventilated area using a respirator to avoid breathing fumes.

**Lesson Plan and Artwork submitted by  
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### National Standards

Content Standard #1 — Understanding and applying media, techniques, and processes

**9-12 Proficient** Students apply media, techniques, and processes with sufficient skill, confidence, and sensitivity that their intentions are carried out in their artworks

**9-12 Advanced** Students initiate, define, and solve challenging visual arts problems independently using intellectual skills such as analysis, synthesis, and evaluation

Content Standard #2 — Using knowledge of structures and functions

**9-12 Proficient** Students create artworks that use organizational principles and functions to solve specific visual arts problems

**9-12 Advanced** Students create multiple solutions to specific visual arts problems that demonstrate competence in producing effective relationships between structural choices and artistic functions

