## Solving the Art Puzzle

With the emphasis on emphasis, this project turns the elements and principles into a puzzle to be solved
If we think of art as a puzzle to be solved, there are individual pieces that an artist organizes and puts together to complete the entire image.


The individual pieces of the puzzle are called Elements of Art, and they are Line, Form, Shape, Texture, Color, Space, and Value.
An artist may use Principles of Design the way a person might solve a puzzle selecting each piece and examining it, comparing it with others, turning it, trying it out, moving it to another location - until it all comes together into one picture. These "clues" that unscramble the pieces are: Balance,


Proportion, Contrast/Variety,
Rhythm/Movement, Emphasis, Unity/Harmony, and Pattern.
Students will build a puzzle with pieces based on the elements of art, then assemble them into a structure following the "clues" - the Principles of Design. Part of the structure will be selected as a focal point or area of emphasis, supported by other "clues" that guide the eye to it.
While any board could be used, balsa wood provides a rigid surface that is also soft enough to press texture into with just a pencil lead. It accepts watercolor and other media beautifully, plus it cuts easily with scissors. Finished "puzzles" will be substantive low-relief sculptures.
GRADES 5-12 Note: Instructions and materials are based upon a class size of 24 students. Adjust as needed.

## Preparation

1. Cut longer balsa wood sheets or strips down into smaller pieces in order to distribute across the class. Use a paper cutter or scissors with $3-4^{\prime \prime}$ cut. Wood will naturally separate along grain lines to create smaller pieces and larger shears will provide more control.

## Process

1. Students select a variety of wood pieces for their puzzle. If desired, pieces can be cut smaller or into other shapes using student scissors.
2. Individual pieces are painted, colored, and designed to reflect one of the elements of art:
Line - A variety of geometric and organic lines can be expressed with a pencil or marker.

## Materials (required)

Midwest Products Genuine Balsa Wood, assorted bag vof 30 pieces (33301-8301); share 2-3 across class
Armada Precision Teacher's Scissors, 3.5" cut (57037-1005); need one
Armada Precision Cost Cutters, 7" (576091007); need one per student

Elmer's X-Treme School Glue, 4 oz (239161004); share one bottle between 2-3 students

Richeson Semi-Moist Watercvolor Set,
standard colors, set of 8 (01770-1008); share one set between two students
Faber-Castell GRIP Colored EcoPencils, set of 24 (22427-2409); share one set among three students
Blick Economy Canvas Panels Classpack of 24, 5" $\times 7^{\prime \prime}$ (07015-1000); need one per student

Materials (optional)
Midwest Products Genuine Balsa Wood, sheets and strips (33301-)
Blick Pastels, set of 24 assorted colors (20016-1109)
All-Purpose Chipboard, 30-ply, 22" x $28^{\prime \prime}$ (13115-2232) and 14-ply, $22^{\prime \prime} \times 28^{\prime \prime}$ (13115-2222)
Simply Art Wood Shapes (60408-)
Hygloss Wooden Blocks, 3/4",72-piece package (60452-1072)
Creativity Street Craft Sticks, box of 1000, natural (60401-1001)



Step 1: Design puzzle pieces using elements of art: line, shape, form, value, color, texture, and space.


Step 2: Paint background panel and select area of emphasis.


Step 3: Solve the puzzle by bringing the elements into the assemblage around the area of emphasis.

## Process (continued)

Shape - Pieces will be squares and rectangles, but students may also wish to cut triangles or polygons. Optional craft sticks and wood shapes will provide a variety of 2-dimensional pieces.
Form - Thicker pieces can express depth or shapes can be layered, glued, or attached on the thin edge to create a 3-dimensional form.
Color - Aim for a variety of hues and color intensities.
Texture - Lowered lines and patterns are easy to press into soft balsa wood.
Value - Light to dark tones can be expressed on one shape or multiple pieces.
Space - This might be best described as the "missing puzzle piece." When the pieces are assembled, space will be defined by the placement of the shapes and the remaining spaces between them.
3. After the pieces are designed, the puzzle can be assembled by gluing them on a rigid panel or board. The surface should be painted first, as it will become an integral part of the finished piece. Black or white provides the most negative space.
4. It is not necessary to use all of the Principles of Design in creating the assemblage. A recommended strategy would be to select Emphasis as the common principle and invite students to incorporate 2-3 principles to support the area of Emphasis.
Emphasis - This can be created by strong contrast in one area of the assemblage. For instance, there may be a piece that is more brightly colored or left unpainted. The emphasis could be a negative area, where the background shows through. It could be a shape that is different, such as a circle in the midst of squared edges. Or, perhaps an area with exaggerated form, such as a cube that rises above the flat plane.
Balance - This can be expressed by placing like pieces on opposite sides of the piece to create symmetry. For example - two large pieces, one placed at the top and one at the bottom. Or, two red pieces, one on the left and one on the right.

Balance can also be asymmetrical. One example of this would be to place all the large pieces on one side and all the small pieces on the other.
Proportion - The variety of sizes that have been prepared will provide a variety of proportions: large, small, long, short, thin, wide, tall, or flat.
Variety and Contrast - The puzzle pieces have been created to express this, with large and small, light and dark, textured and smooth, colorful and neutral pieces. Placement can further express this by arranging contrasting pieces close to each other.
Rhythm, Pattern, and Movement - This can be expressed in a number of ways. Repeating shapes that are similar to one another can form a pattern. Students may want to consider cutting a shape into 3-4 pieces that can be repeated in different areas of the assemblage. The directions of the lines that are formed between the pieces and by the edges of the shapes are a way to guide the viewer's eye and create movement. This movement can lead right to the area of emphasis.
Harmony and Unity - When all pieces work together to create a finished and pleasing artwork, we say it is harmonious or has unity. It's important to have areas where the eye can "rest." Background space - unoccupied by any of the element pieces - can provide open areas that support this principle.
5. All the puzzle pieces do not need to fit on the panel - they can extend beyond the edges or be layered on top of one another. More puzzle pieces can be designed and added if the student feels they are needed. Once all the pieces are in place, the puzzle is solved!

## Options

- If balsa wood is not an option, chipboard, matboard scraps, or tagboard could be used to complete this lesson.


National Core Arts Standards - Visual Arts

## Creating

Anchor Standard 2: Organize and develop artistic ideas and work.

## Responding

Anchor Standard 9: Develop and apply relevant criteria to evaluate a work of art

