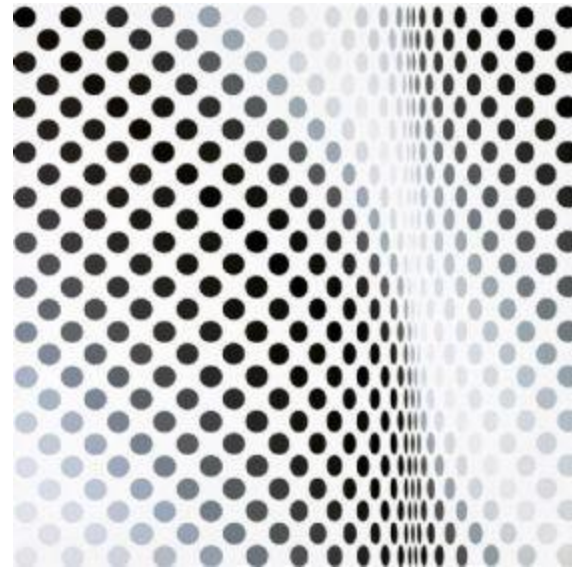


Op Art



Integrated art and science lesson
plan

Donna Pence 2012

Bridget Riley

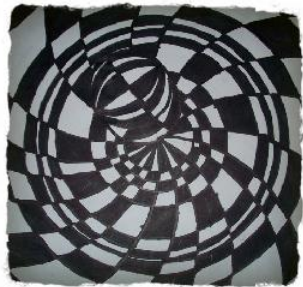
- The basis of the Op Art movement was a form of geometric abstraction, which was in a way impersonal and not obviously related to the real world. *“I couldn’t get near what I wanted through seeing, recognizing and recreating, so I stood the problem on its head. I started studying squares, rectangles, triangles and the sensations they give rise to... The marks on the canvas are sole and essential agents in a series of relationships which form the structure of the painting.”* [Bridget Riley](#)

- She is most well known for her dizzying, patterned paintings that gave birth to a movement called “Op Art”. By juxtaposing different colors or black and white against one another she is able to create the illusion that her work is flickering, pulsating or moving.
- Inspired by Seurat’s pointillist paintings, Riley took the jump into complete geometric abstraction, forgoing any attempts to depict objects or even space. What she revealed was a pathway into the mysteries of seeing, or how the brain processes what the eye beholds. Op-Art blew up in the late sixties, at the same time as psychedelia and mod culture. Her work is deeply influential in the worlds of fashion, advertising, design

Drift N2



“Optical Illusions”



Objective: Students will use lines and shapes to create an optical illusion

Materials

- White construction paper 12x12
- Sharpie markers
- Ruler and Compass
- Variety of shapes to trace
- Erasers

Motivation

- Show students examples of Op Art, such as works by Victor Vasarely from the 1960's.
- The goal of Op Art was to fool or trick the eye by combining and layering different shapes, patterns and lines. Black and white were often used.
- Where have you seen optical illusions in your everyday life?

Step 1: Demonstration

Show students the basics of starting an optical illusion. When you change the shape or change the pattern, an illusion will result. Give students a handout with a variety of background options.

Step 2: Drawing

Choose a pattern for your background. You could do stripes, a checkerboard, zig zag, etc. It is your choice, but the background should cover the entire paper. Map this out in pencil first.

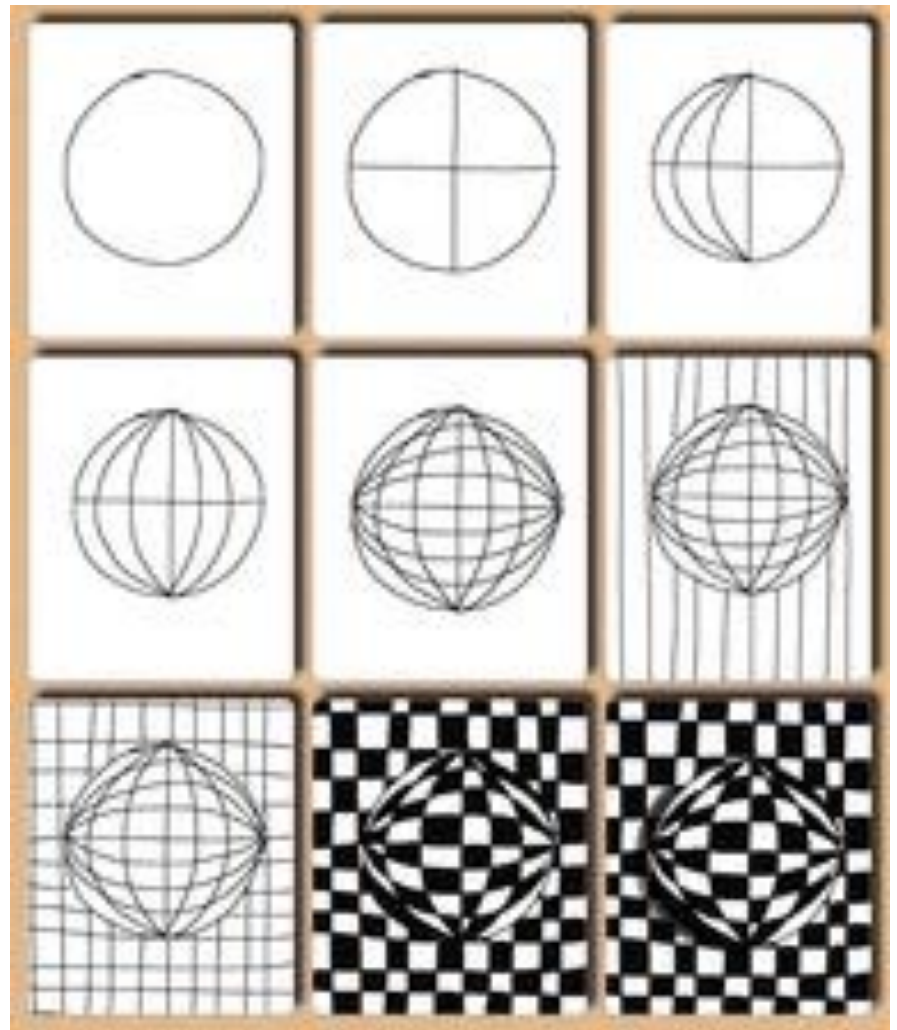
Choose 2 or more shapes to layer over the top of your background. The pattern inside the shape must be different from the background pattern. Make your marks in pencil first.

Label using an X or small line every other section in both your background and shapes. The areas with a mark will get colored in black. The areas without will stay white. Its important to label because this will prevent any mistakes when you start in permanent marker.

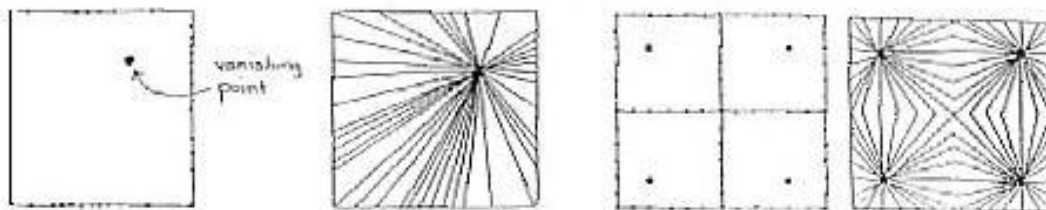
Step 3: Sharpie

Using a black permanent marker, carefully color in all of the sections you marked in pencil. If there are mistakes along the way, whitout works great.

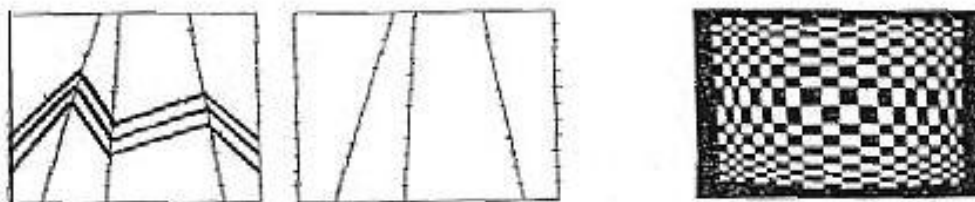
The goal of this is to trick the eye. Hold your paper back for a neighbor. Does it fool their eye or make them dizzy? Did you change pattern each time you created a new shape?



Student Projects



VANISHING POINT ILLUSIONS



BENT PAPER

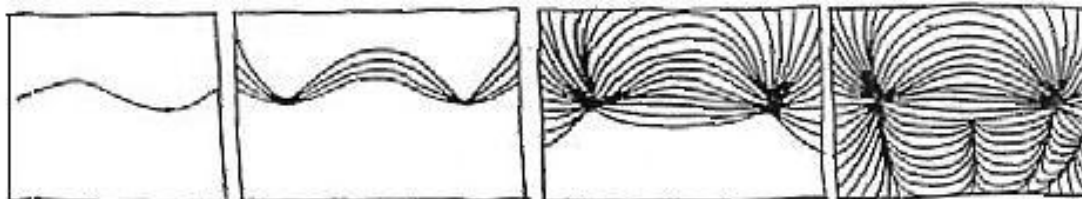
WEAVING



Drawing Grid

Completed Design

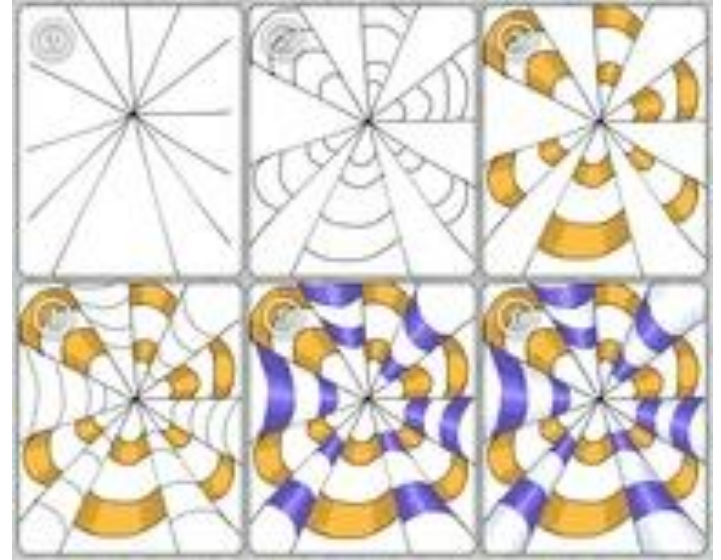
BULL'S EYE DISTORTIONS

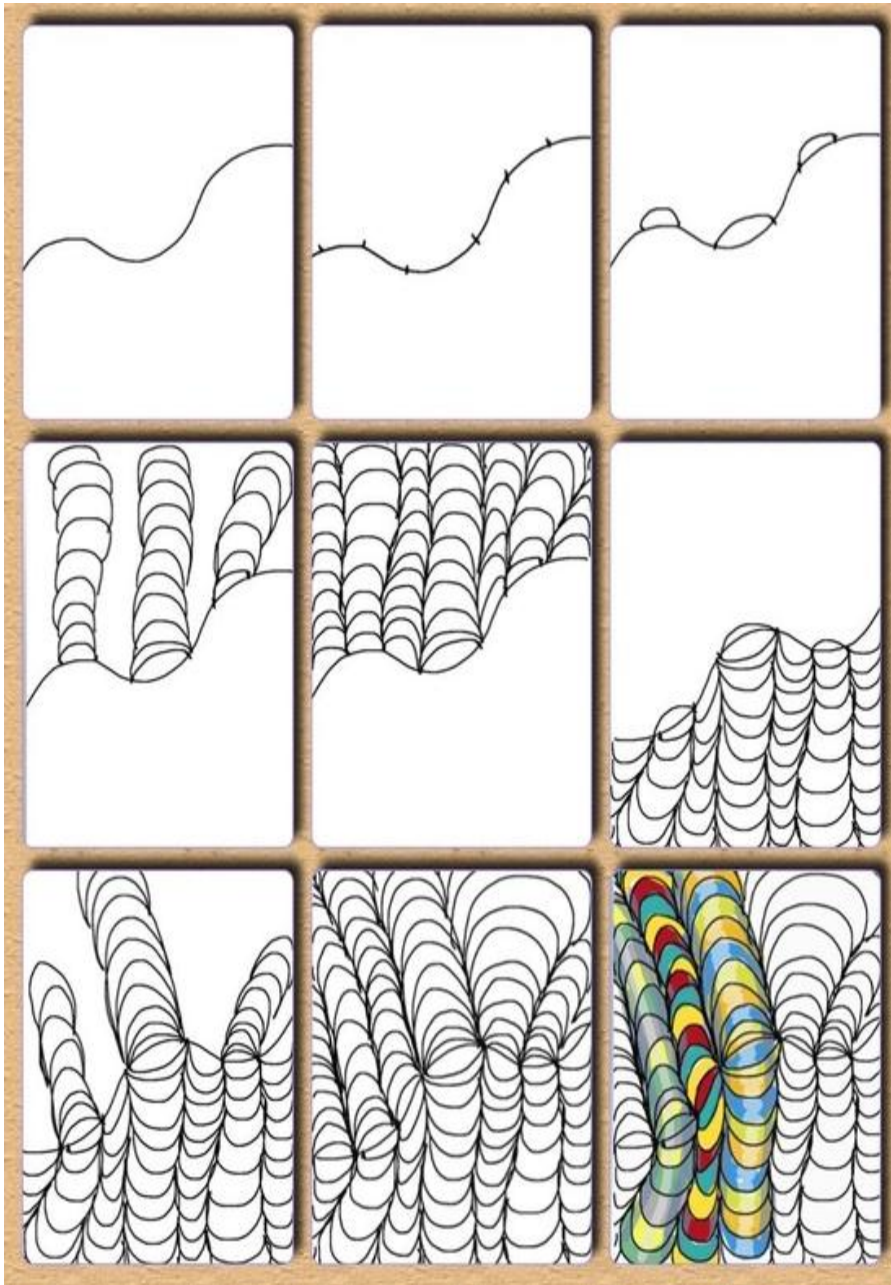


vibrations

One point perspective illusion

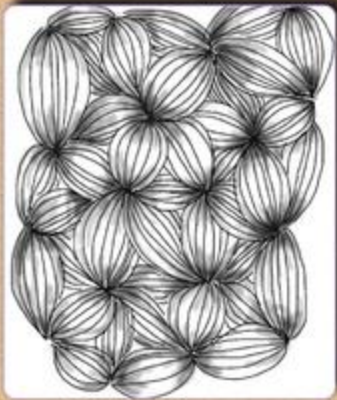
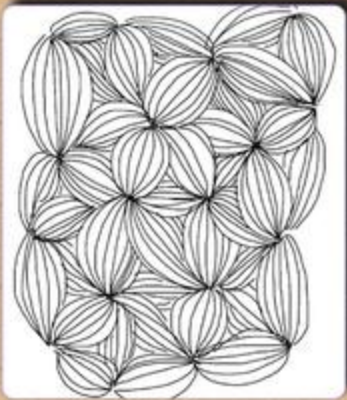
- 1. Start with a dot in the middle of the paper.
- 2. Draw an even number of lines that "radiate" out from that dot. It must be an even number.
- 3. Draw a concave line and alternate with a convex line at the end of each line. Fill in each section with the same lines, making sure they match up. Using the curved lines will create the illusion that the piece is "moving". Use less than 10 curving lines in each pie shape. More lines present more problems.
- 4. Using marker and colored pencil, color these in, alternating each medium. On the colored pencil portion, shade the darker values on the outer edges, and create a highlight in the middle of the stripe. (I like to have students dot each concave and convex stripe with the correct color before they start. This prevents many mistakes and makes it easier to fix a smaller dot if need be.)
- To finish the project, students may cut out their op





Tornados





The Lesson Plan for teachers

- This lesson is a great way to talk about Line, Shape and Pattern with 4th Grade Students. Optical Illusions build excitement, because it is fun to see the way the different illusions can trick the eye. The motivation for this lesson is fairly simple, because the images alone make the students excited to start the lesson. The best part about this lesson is that none of the Op Art pieces look the same when they are finished. Each student can plan out his or her design as long as they follow the simple guidelines. Many examples of Optical Illusions are provided for the students to help them generate their ideas as they plan. Erasing all pencil lines at the end is a must! It helps make the product really look sharp!