



Inspired by Frank Stella: Art with angles and arches

Volume 157 | Gr. 4–6

Time: 3–4 class periods

National Core Art Standards

Creating

Anchor Standard 1: Generate and conceptualize artistic ideas and work.

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

Anchor Standard 3: Refine and complete artistic work.

Responding

Anchor Standard 7: Perceive and analyze artistic work.

Anchor Standard 8: Interpret intent and meaning in artistic work.

Anchor Standard 9: Apply criteria to evaluate artistic work.

Connecting

Anchor Standard 10: Synthesize and relate knowledge and personal experiences to make art.

Anchor Standard 11: Relate artistic ideas and works with societal, cultural, and historical context to deepen understanding.

Objectives

Students will ...

- Learn about Frank Stella and his Protractor Series
- Explore geometric shapes, repetition, and color harmony in abstract art
- Plan and create a mixed-media artwork using drawing and collage inspired by Stella's style

Day 1

1. Start by showing students some of Frank Stella's works from his Protractor Series, along with this video interview from SFMOMA: [Frank Stella and the Art of the Protractor](#).
2. Introduce key vocabulary: scale, balance, repetition, color harmony, and mixed media. Then, prompt students to observe:
 - The use of arcs and curves
 - Bright color contrasts and pattern repetition
 - How large his works are (some bigger than a classroom wall!)
3. Ask:
 - What kinds of shapes did you notice in Stella's paintings?
 - Did anything repeat or overlap?
 - What kinds of feelings or moods do you think his colors create?
4. Say: "You'll be creating your own Stella-inspired work using the same tools and ideas, but on a much smaller scale." Encourage students to take creative risks with their projects, try unexpected color combinations, and view their work as abstract, not realistic. Reassure them that there is no right answer in abstract design — it's about experimenting with form, space, and color like Stella did.
5. Demonstrate how to use a protractor to create clean arcs. Then demonstrate combining arcs with straight lines to build a geometric composition.
6. Introduce the rainbow arch paper pieces by showing a sample collage that incorporates them. Let students explore the pieces and explain that they should be worked into the composition during the planning stage, and they should have a finalized sketch before they glue anything.
7. Pass out materials to each student or table: construction paper, rulers, pencils, protractors, and rainbow arches.
8. Instruct students to begin planning their layout in pencil. Encourage testing out placement of arches before gluing or finalizing their sketch.



Day 2

9. Students should finish their pencil sketches and then use protractors and rulers to outline arcs and lines with black Sharpies.
10. Remind students to focus on balance, color harmony, and pattern repetition. Then, have them fill in the geometric spaces using markers with their personal color choices. Their color schemes could be primary, secondary, neon, neutrals, complementary, analogous, or something else.
11. When they are finished working with markers, have them add their pre-cut arches with glue and then add any details around the arches.





Day 3

12. Invite students to display their finished work and describe their process.
 - How did they decide where to use color or collage?
 - What choices were influenced by Frank Stella's work?
13. Facilitate a critique discussion using prompts:
 - What stands out in this composition?
 - Where do you see repetition or balance?
 - What emotions do the colors express?

Cross-curricular extensions

- **History:** Explore the ancient cities referenced in Stella's Protractor Series.
- **Math:** Review how to measure angles and construct arcs using protractors.
- **ELA:** Ask students to write a short poem or narrative inspired by their finished artwork. Encourage them to describe the mood, colors, and imaginary world their shapes might represent.
- **ELA:** Have students write a brief artist statement explaining their artistic choices, what inspired them, and how their work connects to Stella's ideas.
- **Technology:** Photograph each student's work and create a slideshow or virtual gallery. Students can record a short voiceover explaining their design.
- **Optical illusions and geometry:** Introduce simple optical art (Op Art) techniques and explain how geometric patterns can play tricks on the eye — connecting math, perception, and art.
- **Sketchbook prompt:** Ask students to design a shaped canvas for their art (optional drawing extension).



Materials list

- 6" Professional Protractor ([TB02088](#)) or protractor templates
- Nasco Rainbow Arches ([NE20776](#))
- Aluminum Ruler - 12"L x 1 1/8"W ([2100207](#))
- Nasco White Mixed Media Paper - 9" x 12", 60 lb. ([9728254](#))
- Colored markers
 - Faber-Castell® Black Edition Shake & Paint Acrylic Markers ([NE20771](#), [NE20768](#), [NE20769](#))
 - Royal Brush® Azure™ Professional Artist Alcohol Markers - Set of 40 ([NE20017](#))
 - Crayola® Washable Super Tips Markers ([9740938](#))
- Sharpie® Fine-Point Markers - Black - Canister of 36 ([9726858](#))
- Pencils and erasers
- Glue sticks