



SCULPTURE: Trunnion II
ARTIST: Dale Graham
MEDIA: Aluminum

Kentucky-based sculptor Dale Graham uses his background in mathematics and engineering to create sculptures that make us aware of the principles governing the creation of structures and bridges. This aluminum sculpture features a trunnion, a cylindrical pin on a cannon that forms the axis on which it pivots, a device also used in bridge design. Graham chose to use lightweight aluminum instead of heavy steel so that his sculpture could be more easily transported from place to place. Yet, even though it's made of a lighter material, Trunnion II's large form still impacts the viewer.

Lesson: Line, Shape, and Space.

Grades: Kindergarten through Grade 2

Website: <http://sculpturepark.org/>

Core Arts Standards:

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

Enduring Understanding: Creativity and innovative thinking are essential life skills that can be developed.

Artists and designers shape artistic investigations, following or breaking with traditions in pursuit of creative art-making goals.

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

Enduring Understanding: Artists and designers experiment with forms, structures, materials, concepts, media and art-making approaches.

Anchor Standard 3: Refine and complete artistic work.

Enduring Understanding: Artist and designers develop excellence through practice and constructive critique, reflecting on, revising and refining work over time.

Anchor Standard 7: Perceive and analyze artistic work.

Enduring Understanding: Individual aesthetic and empathetic awareness developed through engagement with art can lead to understanding and appreciation of self, others, the natural world and **constructed environments**.

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

Enduring Understanding: People develop ideas and understanding of society, culture and history through their interactions with and analysis of art.

Objectives:

1. To engage students in active discussions of lines, shapes, and space found in Graham's piece.
2. To demonstrate how lines and shapes can be found all around us.

3. To motivate students to incorporate non-traditional (for their skill level and experience) lines and shapes into a composition.

Materials:

9" x 12" black construction paper

9" x 12" multi-colored pieces of construction paper (a wide variety of colors is best)

Scissors

Glue

Introduction:

Present the slide of **Trunnion II**. Ask students the following:

1. How many shapes do you see?
2. How many letters of the alphabet?
3. How about spaces? Space is the area around and inside the piece.
4. How big do you think the hole inside the piece is? Could a bird fit in there? What do you think the hole is for?
5. Why do you think the artist made his sculpture this size and not the size of a shoebox or coffee table?
6. What do you think this is supposed to be? (After this answer, explain the artist's intention and what it was modeled after)
7. If this were in your yard, would you put anything around it or inside it? How would that change the piece?

Treasure Hunt:

Tell students they are looking for designs/patterns found in everyday objects that have a day-to-day purpose, like a desk, heating vent, window pattern, etc. This relates to how Graham's bridge trunnion serves an industrial purpose.

"For the next 60 seconds, you will leave your seat and WALK around the room to find 3 objects that contain line and shape. Take a picture of them with your mind- do not touch them. You don't want others knowing what you found! After you pick your favorite of the three return to your seat."

Students leave their seats for one minute and find 3 examples of industrial designs in the classroom.

"Let's go around the room and share our favorite everyday object that is like the Trunnion."

(The objective of this exercise is to acquire a verbal recognition from each student demonstrating they recognize how to identify utilitarian objects that relate to Trunnion II)

Activity:

Materials: 9" x 12" pieces of colored construction paper (One piece of paper per student. You will want a variety of colors-the more the better.) Scissors, glue and a piece of black construction paper (do not cut the black paper).

1. Demonstrate and lead students in cutting their piece of colored construction paper in half using a diagonal line. There is no wrong way to do this.
2. Cut the two halves in half, and cut the four pieces of paper in half again. Then cut each piece in half one more time. Students should have 16 different shaped pieces of paper.

3. Ask students to make 2 piles of paper with 8 pieces in each pile. They will trade one pile of 8 pieces with a neighbor. Tell them which neighbor they will trade with-this is important because they will trade one more time.
4. Ask students to take 4 pieces from their old pile and 4 pieces from their new pile and make 2 new piles of 8 pieces-one they will keep and one they will trade. Tell them to trade with a new neighbor.
5. Now that students have 16 pieces of paper-some familiar, some from neighbors. Challenge them to come up with a creative way of arranging the colored shapes on the black piece of paper to create a geometric shape. **THEY ARE NOT ALLOWED TO GLUE-JUST ARRANGE.**
6. Walk around and offer constructive criticism. Comment on their neatness, use of line, choice of designs, and layout of designs.
7. Using a student's work that's finished arranging, demonstrate how to glue the pieces together, leaving an even gap between the pieces, similar to a mosaic. This will allow for a thread of black paper to show through between their shapes and will enhance their composition.
8. Five minutes before the end of class, ask students to stop working. They should put down their glue, stand up leaving their art on their desk, and walk around the classroom looking at the "gallery" of their classmate's artwork. As they walk around, ask them if they're getting any ideas of how they might do this lesson differently at home. (Asking this not only encourages them to think beyond the classroom as to how they will share their experience at home with others when they're showing off their art, but encourages and challenges them to pursue art outside the classroom and run with the concept of the project. It also keeps them on-task and aware that the teacher is engaging them in instruction, thereby deterring unnecessary socializing.)