

STEAM Lesson #1: Sol LeWitt, Conceptual Art Multiple Interpretations

STEAM Lesson #1 Overview

Main Idea: Multiple Solutions, Conceptual Art, Open-ended Instructions, Parameters

Grade Level: 3rd through 5th grade

Subject Areas: Mathematics, Visual Arts, ELA, Engineering Design

3-5-ETS1-2. Students who demonstrate understanding can generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

Learning Objectives:

- Students will generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. By studying the art of Sol LeWitt, students will write their own set of instructions that encourage multiple interpretations.

Durations: 60 Minutes total time

Supplies:

- Four different colored cubes; use same sized colored blocks or make paper cubes out of different color card stock. Cubes constructed out of *Legos* work well also.
- Worksheets copied and distributed to students
- White paper and pencils for writing and drawing instructions

Set Up:

- Print out, Teacher Led Object Facilitation Questions and Demonstration Instructions
- Print out Student Activity Instructions and Student Worksheets (both Part I and Part II)
- Display image of MWPAI's *Wall Piece #2, Cube Structure Based on Nine Modules*
- Create or purchase 4 blocks for demonstration
- Table space to demonstrate
- Crayons or colored pencils for students.

Attachments:

- Lesson #1 Overview
- Image for Enlargement
- Student Worksheets Part 1 and 2
- Teacher Led Facilitation Questions and Activity Instructions

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Teacher Led Object Facilitation – Teacher Introduction (10 minutes): [View image of sculpture]

Teacher presents the following introduction to Sol LeWitt.

- This artist, Sol LeWitt, created many sculptures similar to this one but he called them structures instead of sculptures.
- LeWitt used a few basic shapes when he created his structures, he did the same thing in his paintings, prints and drawings too.
- He arranged these shapes to form patterns.
- Do you see any patterns repeated here?
- What shape is repeated? [Squares, Cubes].
- LeWitt called each layer of the arranged cubes a module. [Help the students see the various layers by counting each of the nine layers from the wall out to the tip of the sculpture.]
- In this sculpture he painted the cubes all white so the color would not be a distracting factor; meaning he didn't want the color to be "too important" when people looked at his work. Many of his other sculptures used color.
- This is title he gave the piece, *"Wall Piece #2, Cube Structure Based on Nine Modules"*.
- That title is actually a set of instructions or a set of parameters, written by Mr. LeWitt.
- He created a problem to be solved knowing that there could be multiple solutions to the problem.
- This artwork could have had the same title if these layers were different.
- What would it look like if we moved the layer closest to the wall to the tip of the sculpture?
- It would look different but it could still have the same title, correct?
- It would still solve the set of instructions or the problem.
- Mr. LeWitt knew there are many ways to arrange this structure and thought the idea of putting different layers of cubes together is more important than what the final object looks like.
- This type of art is called conceptual art, where the idea behind the work is more important than the final piece.

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Teacher Demonstration and Guided Student Practice (10 minutes):

- “Here is a demonstration that might help explain this.”
- The teacher will display four colored cubes.
- The teacher will start by demonstrating one example of a solution following these instructions:
 1. Create one arrangement using all four blocks. An arrangement means that each of the four blocks need to touch at least one other block.
 2. Arrange the four blocks in three layers or levels.
 3. The title of the piece or the instructions to the piece will be, “**4 Colored Cubes in a Structure with 3 Layers**”, or as Mr. LeWitt would say “3 Modules”.
- Next, challenge the students to solve the same problem. Students will take turns trying out different arrangements of 4 blocks in 3 layers. Tell them rearranging the color order is acceptable, vary horizontal and vertical arrangements, tilting or lining up diagonally is allowed too.
- Try to do as many different interpretations as possible.
- Students should confirm after each attempt, “Is this different than the other arrangements? Does it still solve the problem? Can this sculpture have the same title?”

Teacher Facilitation Conclusion:

- We worked with a simple set of instructions to arrange these cubes and the result was different each time.
- However, all of these arrangements could have had the same title, “*4 Colored Cubes in a Structure with 3 Layers*”.
- Everyone interpreted the instructions differently.
- Many of Sol LeWitt’s artworks use this same idea of allowing other people to decide for themselves different ways to understand his instructions.
- Many of LeWitt’s artworks were not created by him but by people using his plans or instructions. The concept of designing or writing the instructions was the art. This is an example of conceptual art.
- Mr. LeWitt also wrote instructions for drawings and paintings with the same idea in mind.
- So how do you purchase a Sol LeWitt drawing? You purchase the instructions to execute the drawing and receive a certificate verifying it is an original Sol LeWitt set of instructions.

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Student Activity Instructions-Working Time (30 minutes)

- Encourage students to write their own set of instructions designed to have multiple solutions.
- Split groups into teams (2-4 students each), each team will agree on and write one set of instructions written in two or three sentences following the instruction parameters listed on the worksheet.
- Each team trades their written instructions with another team. Now each team must solve the other teams problem by drawing the image described in the instructions. Each team tries to come up with as many different responses to the problem as possible.
- Hand the drawings back to the original team members. They must verify that each drawing solves all parameters of their original instructions.
- Display the written instructions side by side with the drawings illustrating different interpretations.
- Older students should incorporate terms they are learning in Math class such as parallel, adjacent, point, right angle, etc. or they can incorporate three-dimensional shapes in their instructions like cylinder and cube to add complexity to the lesson.

Review/Assessment (10 minutes)

Open up a discussion with the students asking if they can think of any practical uses for this type of activity.

Review and Closing (5 minutes)

Show images of examples of other museums interpreting Sol LeWitt's instructions.


For example from Mass Moca, **Sol LeWitt: A Wall Drawing Retrospective:**

<http://massmoca.org/sol-lewitt/>

Student Worksheet: Part I

Part I: Instructions: Use the blank space under each set of instructions to try out different drawing solutions.

Instructions #1 (with example solution): Draw a rectangular shape using only straight lines that never touch.

(2 possible solutions)  Can you think of any other solutions?

Instructions #2: Draw a square and fill in the square with two curved lines and four diagonal lines.

Instructions #3: Draw a circle with a thick black line and fill it with 10 smaller circles. Draw one line that connects at least five circles.

Student Worksheet Part II:

Try writing and drawing your own set of instructions by following these Instructions:

Instructions: Each set of directions should include one of each of the following parameters:

1. Name at least two types (can be more than two) of shapes or lines that will be combined in some way (circle, square, diagonal or curly line, etc.)
2. Add a description to the shapes or lines selected, with a color, or texture (dashed thick line, solid red circle, etc.)
3. Write a command in one or two sentences that instruct how to arrange each of the above elements including their descriptions. For example, place above, arrange side-by-side, draw through, etc.
4. Keep in mind the instructions should be simple and open ended enough to allow multiple answers. Test it yourself by trying out a couple of solutions.