



Pattern Poems Based on Poster Project Art

a 30-60-minute classroom activity

Grades 6-8

By Matt Chalmers, Alder Creek Middle School

Lesson Overview: Working both collaboratively and individually, students will respond to a work of art using a variety of math-based poem structures, practicing close looking and generating a word list with others to create a poem.

Suggested Posters:

- Any posters could be used for this activity. Some suggestions:
- Diego Rivera, *Los Futos del Trabajo*
- Hale Woodruff, *Sunday Promenade*
- Dan Flavin, *Untitled (to Donna) II*

Materials:

- A work of art from the Portland Art Museum Poster Project. Request posters at <http://portlandartmuseum.org/learn/educators/resources/posters/>.
- Sticky notes
- Pen or pencil
- Paper
- Large poster board or large sticky note (presentation-size)
- Marker
- Viewfinder tool, such as a slide frame, paper with a small square cut out, a rolled up pamphlet, or the cardboard insert of a toilet paper roll.
- Poem pattern templates (provided below).

Before the Lesson:

1. Make sure all students have access to the posters by laying them out on tables or hanging them on the walls within reach.
2. Distribute materials to each table.

Lesson Steps:

1. Students gather around poster and use a viewfinder to focus on one small part of the image.
2. Students then draw out what they see from looking into their viewfinder.
3. Group Share-Out: What did we notice?
4. Students then write words on sticky notes in response to the image and place the notes on the poster. (Words are visible to all in group.)
 - Facilitator may have suggestion categories for words to be generated: "Look for words of shape, of color, of feeling/emotion, of landscape, of action, etc."
 - Depending on age group, suggestion words may or may not need to be used.



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5. Each student selects a poem pattern from the templates provided by facilitator and creates a poem using one of the patterns (modified Fibonacci, modified Lucas, pi-em).
 - See templates below.
6. Students share out their poems.

Vocabulary

- **Fibonacci sequence:** A series of numbers where a number is found by adding up the two numbers before it. Starting with 0 and 1, the sequence goes 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, and so forth. Written as a rule, the expression is $x_n = x_{n-1} + x_{n-2}$. Named after Fibonacci, also known as Leonardo of Pisa, a thirteenth-century Italian mathematician.
- **Lucas sequence:** There is another series quite similar to the Fibonacci series that often occurs when working with the Fibonacci series. Edouard Lucas (1842-1891) studied this second series of numbers: 2, 1, 3, 4, 7, 11, 18,... It is called the Lucas numbers in his honor.
- **Pi:** The number π is a mathematical constant, the ratio of a circle's circumference to its diameter, commonly approximated as 3.14159.

Math-Based Poem Templates

Note, these patterns could represent either number of words or number syllables per line, perhaps based on age group and time available.

Fibonacci (modified for poem format):

0
1
1
2
3
5
3
2
1
1



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Lucas (modified for poem format):

2
1
3
4
7
4
3
1
2

Pi-Em:

3
1
4
1
5
9
2
6