

Integrated Curricular Unit PLANNING GUIDE

Please use this form as a thinking/discussion guide. We anticipate changes as you go along.



PLEASE COMPLETE THE PLANNING GUIDE ELECTRONICALLY AND SAVE AS A WORD DOCUMENT. IN ADDITION TO HARD COPY SUBMISSION, EMAIL A COPY OF THE ENTIRE DOCUMENT TO YOUR MENTOR. REFER TO GUIDELINES FOR SUBMITTAL DEADLINE DATES. (NO HANDWRITTEN PLANNING GUIDES WILL BE ACCEPTED)

Teacher (name/grade): Juanita Foster

Artist (name/discipline): Vera Gómez

Connecting Topics: Mathematics (Numeric patterns) and Meter (in language)
(ex: American Revolution & Improvisation)

Inquiry Question: What are/Is Patterns?

Subject Area: Mathematics

Planning dates: August 29 & August 31 (as well as at Art Institute Aug 1-3)

Number of Students: 15-25 per combined class

Student Academic objective(s): *(Teachers, please include subject area, state goals, standards and objectives)*

- Describe, create and extend numeric patterns with and without models
- Determine the pattern to identify missing numbers in a sequence
- Use Pattern identification to solve word problems
- Use concrete pictorial models and symbols to represent missing addends or factors
- Use pattern relationship in real situations (events that show change and constants)

Student Artistic objective(s): *(Artists, please identify an artistic skill/process that will help achieve the academic objectives. Refer to the SC Standards for your art form)*

- Illustrate use of sentence structure and line length to demonstrate numeric count/patterns in language
- Demonstrate relationship to numbers and patterns, such as cinquain, haiku, couplets and use of meter (written & spoken)
- We will leverage math problems to get students to write creatively.

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Connections: *(Write a brief paragraph describing the connections you will explore between the art form and the content)*

During our planning sessions we concluded that language is made up of words, comprised of syllables, made up of meter – which all equals numbers. We want the students to see the connection of numeric patterns in language, and



in physical objects around them, such as in a room's ceilings and floors as well as in their external worlds, outside the classroom and to notice the numeric patterns in items such as cars, street grids etc. We want them to realize the importance of mathematics (numbers) in their lives.

Anticipated process & Learning experience: *How will students explore these connections? How does integrating these standards with this art form create a richer learning experience for students? Why do students learn more by doing it this way?*

Students will have hands on experience, with math patterns and visual and sentence structure pattern to identify meter/count, thus the numeric patterns. Juanita will be frontloading prior to the artist visit. In addition, the students' learning is enhanced by actively participating in the experience via "hands-on experiences". We will reinforce their life experience by working to show them how "numbers" surround us – in math, in language, visually and in sound.

Art form/anticipated learning artifacts: *(photos, recordings, reflections of the learning process)*

- Student journals
- Photo
- Poems
- Class presentation

Unit activities ideas: Describe both artist and teacher activities:

Preliminary knowledge: *Frontloading: How will you activate student curiosity, prior knowledge, memories and emotions so that students make strong connections and get the most learning during the unit?*

Introduction to symbols, ask and assess what they know. I will find out what they want to learn, so we will prioritize what we teach them.

Beginning: *How will the unit start? What resources will be needed?*

Assess what students know and frontload and provide "prompting questions", such as "Do you have patterns in your life?" We will introduce poetry and numeric vocabulary to the students and provide sample poems (cinquain / quintet) to illustrate pattern.

Middle: *How will the unit proceed?*

Ms. Foster will cover patterns prior to the artist visit. The artist and teacher will review patterns daily in mathematics (numeric patterns, letter patterns, and numeric operations). We will conduct writing exercises to reinforce the math lesson, example lessons include: "Build a Poem" and "couplet" exercises as refreshers. We will conduct a short "discovery" field trip around the school so that the class sees the physical patterns around them and we will then write about those patterns with poetry. Target is to have each student write a cinquain (quintet) in the poetry forms pattern.

End: *How will the unit conclude?*

Student presentation, completed journal (writing) reflections, and a short quiz.

Personal/Social connections: *How will you use the inquiry question to help students make personal connections with the content area? With the art form? How will you continue to explore these connections throughout the unit?*

We will use poetic form to illustrate numeric patterns exist even in language, examples: meter, Speech patterns, (students may be taped or recorded) and around them (such as items in the classroom). The art form is poetry, and we will explore these connections via free writing and assignments in mathematics.

Answering the inquiry question: *How will you create experiences in each session that allow students to answer the inquiry question in deeper, more comprehensive ways? What aspects or sub questions of the inquiry question will you explore?*

The artist will use sample poems as learning tools to show math equivalents. Students will write individual and group poems to mimic the pattern and discuss “the math meter.” We will also incorporate discovery trips around the school to explore patterns. The sub question explored is to identify the patterns in your life, at school and at home.

In what way(s) will students answer the inquiry question? (example: writing, creative dramatics, creative movement, music, visual art)

Students will use written form and presentations. They could use sound/music to report pattern.

How will you use this information to inform future session and progress of the unit?

We will review previous material covered to reinforce daily lessons and to make sure learning is occurring.

Unit Support *(Questions to consider/discuss)*

Artist: *What can the teacher do to best help you with the unit? (Preparation, behavior management, support during and after the unit, etc.)*

- Frontloading information
- Inform the artist of classroom management and rules
- Provide the artist with feedback on whether the students are learning and meeting objectives.

Teacher: *What will you do during the artist sessions? What will you do to prepare for the artist sessions and how will you continue to support the inquiry on non-artist days?*

I will assist with class management, refocus students as needed, assess student progress and facilitate the group as well as provide frontloading

Assessment: indicators of learning: *What formative assessment strategies will you use throughout the unit to inform your teaching?*

- Informal questions
- Journaling
- Class discussion

What summative assessment will you use at the end of your unit to assess overall student learning? If using a rubric(s), please provide an electronic copy.

- Teacher made test

Schedule of Artist Sessions – Please notify your MENTOR of any changes

NOTE: Because Ms. Foster is a “floating” teacher, we will combine classes and conduct the unit in 4 days.

Thus, the lesson plan below correlates to 4 visits with the teacher and artist combining #1 & #2 for Day 1, etc.

Session Dates & Times <i>(indicate exact times you will be in classroom)</i>	Activity(s) <i>(describe the activities designed for each session)</i>	Role of Teacher	Role of Artist	Reflection & Meaning Making <i>(writing, interview, visual, tableaux, discussion, etc.)</i>
1 Date: Time:	We will discuss the writing process. Introduce vocabulary. Identify different kinds of poems	Frontload numeric patterns and word patterns	Introduce meter, language, and pattern Introduce sample cinquain	Questions answered, whole class discussion
2 Date: Time:	Introduce cinquain poems	Frontload, class management, discussion	Review , Build a poem exercise, write	Reflect and discuss
3 Date: Time:	Cinquain , Field Day(20)minutes	Frontload, Discuss	Review, Share writing Identify meter	Cinquain tableau, discussion
4 Date: Time:	Compose a class cinquain poem	Class management	Collaborative writing	Skills learned today discussion
5 Date: Time:	Student write individual poem	Review the connection between math and poetry	Assist students in writing individual poems	Share poems with groups
6 Date: Time:	Introduce Haiku Poem Share examples	Frontload numeric pattern Discuss pattern identification	Review Haiku Write Haiku Poem	Discussion comparing Cinquain and Haiku
7 Date: Time:	Review haiku poem Create an oral class presentation	Class management	Review Haiku Guide student presentation ideas	Discussion of presentation day logistics Example of reading techniques

<p>8</p> <p>Date:</p> <p>Time:</p>	<p>Presentation Day</p>	<p>Class Management</p>	<p>Introduce students and provide presentation guidance</p>	<p>Class discussion And sharing of lessons learned in unit.</p>
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Process Documentation: *How will you work together to document the process throughout the unit? What types of documentation are meaningful for this unit? Consider who will document during different activities.*

Student journal and poems and math equations that we hope to take to paper. We plan to document via recordings, digital photos and, if available, video recordings of the students working together and during their final class presentation.

How will you use this documentation to enhance student reflection and learning?

We will play back recordings so that students not only review themselves, but see the patterns they create via speech, body movement etc.

Vocabulary: *What vocabulary will be introduced? Include vocabulary for content area, art form and any other new vocabulary introduced in this unit.*

Poetic terms include: meter, couplets, cinquain, haiku, internal rhyme, haiku and pattern, etc.

Math terms include: number operations, patterns, additions, sum, multiplication sentences, additions sentences and input/output.

Materials: What materials or supplies will you need for this unit? (Please include details on page 3)

- Writing journals
- Construction paper
- Tape/glue

Teacher Learning:

What will the teacher learn during this unit that will add tools to his/her teaching toolbox? Be specific. (ex: specific activity, element of art form, printed resources, introduction to a piece of art, how to access and encourage student creativity)

Teacher will learn how to identify language count (the numbers of a sentence, the math of noun + verb + object = sentence) to show students an alternative to seeing “number patterns” and then applying that information to making mathematics easier to learn.

How will you work together to ensure that teacher comfort and confidence in these skills are growing throughout the unit?

Vera will reinforce to Juanita how to use language count in math and demonstrate that prose/poetry is based on meter while providing examples of “thinking out of the box” so that she is enabled to encourage students to enjoy mathematics.