Facilitation Guide

5-7 Min Launch

Digital Guide

ARTS EVERY DAY IN BALTIMORE CITY PUBLIC SCHOOLS

Visual Art Addition Within 100

VISUAL THINKING

ARTFUL REPETITION

ROUTINE OVERVIEW

In this lesson launch, students analyze a piece of jewelry by Douriean Fletcher to practice looking for groups, patterns, and quantities. Through Notice & Wonder and partner discussion, students connect what they see to strategies for adding two-digit numbers within 100.

Want to see these objects in person? Book a free field trip to the Walters Art Museum! Visit the Walters website to learn more about field trips and bus reimbursements or contact tours@thewalters.org directly.

Maryland Standards

MARYLAND STATE MATH STANDARDS

- **2.NOS.C.8 –** Fluently add and subtract within 100. a. Use strategies based on counting (e.g., counting on, counting back) and place value (e.g., partial sums, making tens, etc.) to add and subtract. b. Use properties of operations, and the inverse relationship between addition and subtraction to add and subtract. c. Determine and explain when a strategy is most efficient.

MARYLAND ARTS STANDARDS

- **VA.AS7.I:P-2:2** - Communicate clearly how to determine how selected artwork represents what people see, know, feel, and imagine.

Not in MD? View National Standards in the Digital Guide

Getting Ready

REVEAL MATH: 2nd Grade: 5-3, 5-4, 5-5, 5-7, 5-8

ARTS INTEGRATED LEARNING OBJECTIVE: I can use what I notice in a piece of art to find groups, patterns, and strategies for adding two-digit numbers within 100.

MATH DOMAIN:

Number Sense and Operation	Use place value understanding and properties of operations to add and subtract.	Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

MATERIALS

- Slides with images
- Dry-erase board/or surface
- Dry erase marker

WHAT'S BEFORE: Fluently add within 20 using mental strategies (Grade 1)

WHAT'S NEXT: Solve two-step word problems with four operations (Grade 3)

MATH SKILL: Adding two digit numbers using place value strategies

ART SKILL: Explain mathematical thinking through visual artwork; Use visual artwork to explore mathematical concepts creatively

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TEACH

Facilitation Steps

This activity should take no more than 7 minutes and is designed for the beginning of the lesson.

Connect to Visual Art:
Teacher: "Raise your hand if you've ever seen the movie Black Panther or another superhero movie."

Possible Student Responses:
"I have!"
"I've seen Black Panther."
"I've seen other superhero movies."

Teacher: "Movies are one type of visual art. We can also experience art in museums, neighborhoods, and galleries. Today we're going to look closely at a piece of artwork to begin our math lesson."

Ask: *What is an art museum? Who has been to an art museum before?*

Possible Student Responses:
"It's a place with art."
"You can look at paintings."
"People make art there."
"I've been to one!"
"I've never been before."

Introduce the artist:
"Today we'll look at artwork by artist and jewelry designer Douriean Fletcher. Jewelry can be art too!

Her work is inspired by something called Afrofuturism. Afrofuturism is a style of art that mixes African history, culture, and traditions with imagination and ideas about the future. Think about the world of Wakanda in Black Panther; it honors African culture while imagining amazing future technology and beautiful designs. That's the kind of inspiration you'll see in this artwork."

Display the artwork on **slide 1** without mentioning the math objective.

Notice & Wonder:

"Take one quiet minute to look closely at the artwork. Record anything you notice or wonder on your dry-erase board."

Ask: "What do you notice?"



SLIDES



VIDEO PLAYLIST



MATERIALS
GOOGLE FOLDER

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Possible Student Responses:
"I notice feathers."
"I see shells." *Note*: *The shells on the given necklace are cowrie shells.*
"There are beads."
"It's colorful."
"Some objects repeat."
"It looks like a necklace."

Ask:
"What do you wonder?"
Possible Student Responses:
"Why did the artist use shells?"
"How long did it take to make?"
"What are the feathers for?"
"How many shells are there?"
"Who would wear it?"

Ask:
"What do you notice about the number or quantity of objects?"
Possible Student Responses:
"There are a lot of shells."
"I think there are more shells than feathers."
"Some parts have the same number."
"The objects are grouped together."

Ask:
"Do you notice any groups, patterns, or repeated colors that might help you count more efficiently?"
Possible Student Responses:
"I see groups."
"The shells are lined up."
"The colors repeat."
"I could count by groups."

Ask:
"If you wanted to find the total number of shells, feathers, or other objects, how could you do it without counting one at a time?"
Possible Student Responses:
"I could count groups."
"I could add the groups together."
"I could count by tens."
"I could break it into parts."

Acknowledge Student Thinking

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Ask:
"Who noticed something similar?"
"Who noticed something different?"
"What made you think that?"
"Can someone build on that idea?"

Move into the Math
"Let's imagine this piece of jewelry has 38 cowrie shells and 14 feathers."

Ask:
"Without solving it yet, what is one strategy you could use to find the total number of objects?"

Allow 30 seconds of think time.

Partner Discourse:
"Turn and tell your partner one strategy you could use to find the total. Explain why you think your strategy would work well."
Possible Student Responses:
"I'm going to add the tens first, then the ones."
"I like using base-ten blocks because I can see the numbers."
"I'll draw the numbers to help me."
"I'll break apart the numbers before adding."

Transition
"Today you'll explore strategies like the ones you just discussed to find the total. You don't need to solve this problem yet; we're getting our brains ready to think like mathematicians by looking closely at art and noticing patterns, groups, and quantities."

Extend: Use the following slides with additional images to repeat this visual thinking strategy.

Assessment & Reflection

Formative:
Observe students as they answer questions, showcase understanding, and attempt to solve math problems on dry-erase boards/surfaces. Provide moments for discourse and affirmations.

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Differentiation

This lesson launch can be adjusted for 1st grade students as they work on understanding place value (1.NBT.C.4, 1.NBT.C.5, 1.NBT.C.6).

Accommodations that can be offered during this launch include students having the option to use manipulatives of their choice when moving into the math.

Extension could include students solving the problem and justifying their thinking on the strategy they use. Students can do this verbally or in writing.

The teacher can extend even further by asking, "If you were designing a necklace, what would it include?"

- Students can create a design to include Math.
- An effective and easy extension could be having students draw the necklace and complete the given math that matches their design.