

Lesson Plan: Counting to 1 Million through Dance

Grade: 4

Missouri Math Standard 4.NBT.A.2: Students will learn to read, write, and identify multi-digit whole numbers up to one million. They will use number names, base ten numerals, and expanded form to understand and work with these numbers. The goal is for students to be able to recognize and use these numbers in different formats. Learn more.

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Lesson Summary & Objective: Students will read, write, and identify multi-digit whole numbers up to and beyond one million using base ten numerals, number names, and expanded notation through a dance activity inspired by African-American social dance.

Duration: 25 minutes

Materials:

- [Slide Presentation](#) (Click the link)
 - Music for dancing (included in the Slide Presentation and Lesson Plan below)
 - Examples of multi-digit numbers for small group work
 - Printed examples of numbers and their expanded form (optional)
 - Whiteboard and markers (optional)
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Slide 1: Counting to 1 Million! (1 minute)

Teacher says:

Hi everyone! Today, we're going to learn how to read, write, and understand multi-digit numbers up to one million and beyond. We'll use base ten numerals, number names, and expanded form with dance moves inspired by African-American social dance.

Call to Action:

Let's all stand up and gather on the rug. We'll start by learning the math terms and understanding African-American social dance. Then we will practice counting to one million with dance moves to help us understand these numbers better.

Slide 2 & 3: Define Math Terms (3 minutes)

Teacher says:

First, let's define three important terms that will help us with our numbers.

Number Names

- Number names are the words we use to say numbers. For example:
 - **342** is read as "three hundred forty-two."
 - **1,234** is read as "one thousand two hundred thirty-four."
 - **45,678** is read as "forty-five thousand six hundred seventy-eight."

Base Ten Numerals

- Base ten numerals are the individual digits we use to write numbers. For example:
 - **342** uses the numerals **3**, **4**, and **2**. Each numeral represents:
 - **3** in the hundreds place (300),
 - **4** in the tens place (40),
 - **2** in the ones place (2).
 - **1,234** uses the numerals **1**, **2**, **3**, and **4**. Each numeral represents:
 - **1** in the thousands place (1,000),
 - **2** in the hundreds place (200),
 - **3** in the tens place (30),
 - **4** in the ones place (4).
 - **45,678** uses the numerals **4**, **5**, **6**, **7**, and **8**. Each numeral represents:
 - **4** in the ten thousands place (40,000),
 - **5** in the thousands place (5,000),
 - **6** in the hundreds place (600),
 - **7** in the tens place (70),
 - **8** in the ones place (8).

Expanded Form

- Expanded form shows a number as the sum of the values of its digits, based on their place values. For example:
 - **342** in expanded form is **$300 + 40 + 2$** .
 - **1,234** is **$1,000 + 200 + 30 + 4$** .
 - **45,678** is **$40,000 + 5,000 + 600 + 70 + 8$** .

Teacher Says:

Each form helps us understand and work with numbers in different ways!

Slide 4: Quick Video (5 minutes)

Teacher says:

Before we start dancing, let's watch a quick video about the importance of African-American social dance moves. This will give us inspiration for our own dance steps as we learn about numbers. Be sure to examine the different moves, as we'll be using some of these moves to represent the place values in our numbers.

Show the video on African-American social dance:

https://youtu.be/dpCBMwAweDI?si=Tt-1jgv_mdHWyaKo

Teacher says:

Great! Let's use some of these moves to help us understand and practice expanded notation. We'll assign a dance move to each place value in our numbers, so we can 'dance' our way through expanded notation!

Slide 5: Dance Moves for Expanded Form (5 minutes)**Teacher says:**

To help us understand expanded form, we'll use dance moves inspired by African-American dance steps. Each move will represent a different place value in our numbers.

Que Music: Instrumental Song "Whip, Nae Nae": [Link](#)

Teacher says:

Let's practice these moves together to get the hang of them!

- **1,000,000 Place: Cakewalk.** Perform a freestyle waltz to represent the one millionth place.
 - **100,000s Place: Kid'n'Play.** Tap your foot against a partner's foot and tap it out to show the 100,000s place.
 - **10,000s Place: Bee's Knees.** Flap your knees as if fluttering like a bee for the 10,000s place.
 - **1,000s Place: Camel Walk.** Press your feet to the ground as you move forward to represent the 1,000s place.
 - **100s Place: Twist.** Bend your knees and twist to the right and left to represent the 100s place.
 - **10s Place: Charleston Step-Tap.** Step to the side and tap your foot to represent the 10s place.
 - **1's Place: Juba Clapping Dance.** Clap your hands and stomp your feet to represent the 1's place.
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Slide 6: Group Activity – Dance the Numbers (5 minutes)

Teacher says:

Now, get into small groups. Each group will receive a multi-digit number and use our dance moves to represent it.

Activity Instructions:

- **Group Formation:** Break into small groups.
- **Number Assignment:** Each group receives a multi-digit number (e.g., 1, 479, 500, 12,345 or 678,901).
- **Counting & Dancing:**
 1. **Practice Saying the Number:** Begin by saying the number using number words. For example, 45,678 is "forty-five thousand six hundred seventy-eight."
 2. **Identify Base Ten Numbers:** Identify all the base ten numerals in the multi-digit number. For example, in 45,678, the base ten numerals are 40,000; 5,000; 600; 70; and 8.
 3. **Practice Dance Moves:** Practice the dance moves corresponding to each Base Ten Number and Place Value in the assigned number. For example, for the number 45,678:
 - **40,000:** Bee's Knees
 - **5,000:** Camel Walk
 - **600:** Twist
 - **70:** Charleston Step-Tap
 - **8:** Juba Clapping Dance
 4. **Write the Number in Expanded Form:** Write the number in expanded form using the identified base ten values. For example, 45,678 in expanded form is $40,000 + 5,000 + 600 + 70 + 8$.

Teacher says:

You have 5 minutes to practice your routine and show how your moves represent the number.

Provide Background Music: Candy Girl by New Edition Instrumental: [Link](#)

Slide 7: Group Presentations (5 minutes)

Teacher says:

Time to show your dance! Each group will perform their number by showing the moves that represent each place value and by sharing their number — written in expanded form.

Showcase and affirm presentations. Suggested Instrumental by Miss Elliot: [Link](#)

Slide 8: Reflection and Exit Ticket (1 minute)

Teacher says:

Did the dance moves help you remember base ten numerals and expanded notation better?

Affirm responses.

Teacher says:

Excellent work today, everyone! Keep counting and dancing to the beat of your own brilliance!