Where Are You Headed - Rounding Dance

Third Grade
Adapted by C Moore

CORE SUBJECT AREA

Math

ART FORM + ELEMENTS

Dance, Space

MSCCR STANDARDS

3. NBT. 1- Use place value understanding to round whole numbers to the nearest 10 or 100.

MSCCR CREATIVE ARTS STANDARDS

DA: Pr5.1.3- Develop and refine artistic technique and work for presentation.

- Replicate body shapes, movement characteristics, and movement patterns in a dance sequence with awareness of body alignment and core support.
- Adjust body-use to coordinate with a partner or other dancers to safely change levels, directions, and pathway designs

DURATION

60 Minutes

OBJECTIVES

TSW be able to clearly identify numerical benchmarks, a numerical midpoint, and understand how to round to the nearest 10 or 100 in a given equation. TSW demonstrate rounding to the nearest 10 or 100 through the use of pathway, level, and size (of movement/big vs. small). TSW dance a numerical equation involving rounding numbers to the nearest 10.

MATERIALS NEEDED

CD, boombox or music download and phone/speaker, floor tape, numbered placemats (09/ones and 0-100/hundreds)

VOCABULARY

Approximation
Estimation
About
Round
Closer to
Midpoint
Levels (low, medium, high)
Size (small, medium, large)

Size (small, medium, large

Gradated

Pathways (straight and curved)

RECOMMENDED RESOURCES

Eric Chappelle- Music for Creative Dance: Contrast and Continuum, Vol.1 https://itunes.apple.com/us/album/music-for-creative-dance-contrast-and-continuum-vol1/661453067

LESSON SEQUENCE

Introduction

Who knows what time school gets out? That's right. School ends at EXACTLY 3 PM every day. Sometimes we know something very specifically or down to the last detail. Sometimes we don't or don't need to, and this is called "making an approximation" or in other words, it takes me "about ten minutes" to get from school to my house at the end of the day.













Relevance: It is important to be able to measure or identify things exactly but also approximate their value at times in life. This can be true in math. $10 \times 10 = 100$, right? Is 99 a correct answer? No. But we also round numbers in math, and this is a chance for us to be "close to a given number" but not identify it exactly. In movement, we do the same thing. For example, the movement can either last exactly eight counts, or it can last around 30 seconds. Make sense? Knowing how to do both is important for us to be ready to nd the right KIND of solution to any given problem—in math, in movement, or in our daily life. Last example: if your mom promised you \$7 for allowance but only had \$1 and \$10 but she said she would round up to the nearest 10, it would be pretty important to know what 10 to round towards, right?

Introduction of Participation Expectations: This is a special kind of class. You need to give me your full attention and do your best to watch me as I teach

In a movement class, you follow-the-leader and what you see me do as much as you listen to what I am saying and follow spoken directions. You also want to be spatially aware and respectful of those around you. Keep your body to yourself and stay safe in your movement above all else-there is no room for horseplay if we are going to get to everything that we have planned! We will be working together in teams for part of this class, which is important to know how to do well, and I will be asking for volunteers to help me be leaders and demonstrators as well. I always choose students who are paying attention and eager to try things. Make it clear to me if this is you from the beginning of class, so I notice you and ask you to help me teach! Finally, we have a special "cue" for attention in class because we are moving a lot. Doing a hand signal doesn't work. (Model call-and-response and have students practice it several times). Any questions? Now we are ready to go.

Warm-up: Brain Dance Music: Eric Chappelle Follow my lead but feel free to explore. We will be moving in all different kinds of ways in the warm-up. Do your best to do everything clearly. We will do the warm-up in place. Breath-inhale with arms reaching up and down (high and low level, BIG) Tactile-brush, pat, squeeze, tap (all levels, SMALL) Core/Distal- reaching out (high level, BIG) and in (medium level, SMALL) Head/Tail- bobble head traveling down the spine, fast and slow motion (medium level, SMALL) Right/Left- body parts then whole side of body (all levels, BIG & SMALL) Upper/Lower- (all levels BIG & SMALL) Cross Lateral- marching (medium level, BIG), slow down into toe touches with lunge (low level, SMALL) Vestibular- tip/stretch side to side (high level, BIG), sit and do butt spins right and left (low level, SMALL) Center- have students sit cross-legged in place and take three deep breaths with an "ahhhhh" exhale, do eye tracking, and have a moment of stillness.

Discussion: We moved on all different levels during our warm-up. Identify high/medium/low and ask for students to volunteer a few examples from warm-up in support of this explanation. Today, the bigger the number gets the higher we will go when we move. For example, the number "2" will be at low level and the number "9" will be at high level. We will also make our movements bigger or smaller depending on how big a number is. Let's get started!

Review of Concept: Place Value The teacher will write a number on the board (1,857) and ask for a student volunteer to identify the place value of each (ones, tens, hundreds, thousands). She will review with students that the value of each number depends on its place in the value. She will then ask students to answer the following question: is 99 or 121 larger? How do we know? But the numbers are smaller individually in 121 and larger in 99, so what helps us out here? Good. It is important to know place value in order for us to round numbers to the nearest 10 or 100.

Transition

Warm-up: Brain Dance Music: Eric Chappelle Follow my lead but feel free to explore.













Students will be moving in all different kinds of ways in the warm-up. Do your best to do everything clearly. Students will do the warm-up in place.

- Breath inhale with arms reaching up and down (high, and low level, BIG)
- Tactile brush, pat, squeeze, tap (all levels, SMALL)
- Core/Distal reaching out (high level, BIG) and in (medium level, SMALL)
- Head/Tail bobblehead traveling down the spine, fast and slow motion (medium level, SMALL)
- Right/Left- body parts then whole side of body (all levels, BIG and SMALL)
- Upper/Lower (all levels BIG and SMALL)
- Cross Lateral marching (medium level, BIG), slow down into toe touches with lunge (low level, SMALL)
- Vestibular tip/stretch side to side (high level, BIG) sit and do butt spins right and left (low level, SMALL)
- Center have students sit cross-legged in place and take three deep breaths with "ahhhhh" exhale, do eye-tracking, and have a moment of stillness.

Discussion: We moved on all different levels during our warm-up. Identify high/medium/low and ask for students to volunteer a few examples from warm-up in support of this explanation. Today, the bigger the number gets the higher we will go when we move.

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Introduction of Concept: Levels & Size Music: Eric Chappelle

Level Demonstration: Select students' placemats will be numbered 0-100 (by tens). The teacher will ask these students to come to the front of the room and serve as volunteers. The teacher will arrange them in order, smallest value to largest (0-100). She will then ask students to show a graduated change in levels that reflect these values starting with 0 on the floor and 9 reaching as high as possible/jumping. Student volunteers will be thanked and asked to return to their place. Level Exploration: Students will be asked to move in place, on or near their placemat. They will be guided to explore all three levels (low, medium, and high) through a variety of given movements. The teacher will verbally acknowledge creative movement and focused participation by students. Size Demonstration: Select students' placemats will be numbered 0 -1000 (by hundreds). The teacher will ask these students to come to the front of the room and serve as volunteers. The teacher will arrange them in order, smallest value to largest (0-1000). She will then ask students to show a gradated change in size of movement that reflect these values starting with 0 hardly moving and 1000 moving as large as possible. Student volunteers will be thanked and asked to return to their place.

Size Exploration: Students will be asked to move in place, on or near their placemat. They will be guided to explore size (small, medium, large) through a variety of given movements. The teacher will verbally acknowledge creative movement and focused participation by students.

Development of Concept Identifying the Midpoint Music: David Chappelle

The teacher will ask the 100's to return to the front of the room. She will ask the students what the midpoint is in this numerical system. The number 500 will be identified. The teacher will explain that when rounding numbers, the midpoint needs to be identified so













that you know whether to round up (midpoint or higher) or round down (lower than the midpoint). Students will be placed in lines and will be asked to move in lines across the floor one line at a time. (first person in each line makes the traveling group/line). Students will be asked to freeze in a shape at the midpoint and gradate the level and size of their movement as they go. Pathways (straight and curved) will also be introduced.

1st pass: walk and freeze in shape at midpoint (medium level). Straight path. **2nd pass:** run and freeze in shape at midpoint (medium level, use whole body). Straight path.

3rd pass: move at low level to midpoint, then gradually move towards high level afterwards. Straight path.

4th pass: repeat and encourage students to keep moving and make changes more gradual. Straight path.

5th pass: move small to midpoint, then gradually increase to big movements afterwards. Curved path.

6th pass: repeat and encourage students to keep moving and make changes more gradual. Curved path.

Discussion: It is sometimes helpful to think of the number line being curved instead of straight. This way, depending on where the number falls, you know what way to round. It is visually a little clearer. When you identify the midpoint, let this be "the top of the bell curve" and it will be easier to know which direction to go.

Culmination of Concept: Shape vs Movement, Rounding to the Nearest 10. Music: Eric Chappelle

In order to demonstrate understanding, students will need to know the difference between a shape and a movement. They will be given several examples (0-9/ones) to show the difference. For example, they will be asked to show a 9 through body shaping (freeze) and move a 9 through a repeating and continual action.

Students will then be asked to find a partner and will receive a number between 0 -100. They will be directed to round the number to the nearest 10. They will then be asked to show their original number through a body shape (frozen) and their rounded number through movement (action). Each person will represent a part of the numerical equation (i.e. 19 will require one person to be a 1 and one person to be a 9.). Students will then be asked to start at 0, graduate movement either in level or size to their number, share their shape (body shaping), and then move either backwards or forwards to their rounded number and show movement (action) that represents this.

Performance (time allowing and volunteer only) Pairs of students will be asked to show their "rounding dance." The teacher will solicit feedback that focuses on what movement was creative, how clear shapes and movements were, and whether their demonstrated answers were correct. The performer will then be asked to show their number to verify their work.

SOURCES

Julie White - https://wigglegenious.com/ adapted by C Moore











