

# UNIT: ROUNDING THROUGH THE ARTS ROUNDING RHYMES-EXPLORING NUMBERS THROUGH MUSIC Grade Band: 3

**Content Focus: Music & Math** 



#### LEARNING DESCRIPTION

In this music-integrated lesson, students will review their understanding of place value and apply it to the concept of rounding whole numbers to the nearest 10 or 100 using musical concepts. Students will create a rap, cheer, or song that expresses their specific number's journey as it rounds to the nearest ten or hundred using body percussion, tempo, dynamics, and pitch.

# **LEARNING TARGETS**

Essential Questions	"I Can" Statements
How does place value relate to rounding multi-digit whole numbers?	I can apply my understanding of place value to the concept of rounding whole numbers.
How can musical terms like body percussion, tempo, pitch, and dynamics help to express rounding?	I can determine when a multi-digit whole number should be rounded up and when it should be rounded down.



I can create a rap, cheer or song that expresses my overall understanding of the concept of rounding.
I can use musical concepts like body percussion, tempo, pitch, and dynamics to express rounding.

# **GEORGIA STANDARDS**

Curriculum Standards	Arts Standards
	ESGM3.CR.2 Compose and arrange music within specified guidelines.
	ESGM3.PR.2 Perform a varied repertoire of music on instruments, alone and with others.

# **SOUTH CAROLINA STANDARDS**

Curriculum Standards	Arts Standards	
· · · · · · · · · · · · · · · · · · ·	<b>Anchor Standard 1:</b> I can arrange and compose music.	
	Anchor Standard 4: I can play instruments alone and with others.	

# **KEY VOCABULARY**

Content Vocabulary	Arts Vocabulary	
Rounding - Making a number simpler but keeping its value close to what it was. The result is less accurate, but easier to use. Example: 73 rounded to the nearest ten is 70, because 73 is closer to 70 than to 80  Place value - the numerical value that a digit has by virtue of its position in a number	<ul> <li>Lyrics - The words of a song</li> <li>Tempo - The speed of the beat</li> <li>Body percussion - Percussive sounds you can make with your body, such as clapping, stopping, tapping, snapping, etc.</li> </ul>	
<ul> <li>Place value - the numerical value that a digit has by virtue of its position in a number.</li> <li>Thousands place - The value of where the digit is in the number. Example: In 1,352, the 1 is in the "thousands"</li> </ul>	<ul> <li><u>Dynamics</u> - Loud and soft sounds; volume</li> <li><u>Pitch</u> - The highness or lowness of sound</li> </ul>	



position, so it shows a value of 1,000

- Hundreds place The value of where the digit is in the number. Example: In 1,352, the 3 is in the "hundreds" position, so it shows a value of 300
- Tens place The value of where the digit is in the number. Example: In 1,352, the 5 is in the "tens" position, so it shows a value of 50
- Ones place The last or right digit. Ex: In 784, 4 is in the ones place
- Whole number A number without fractions or decimal parts
- Greater than A symbol used to compare two numbers, with the greater number given first. Ex: 5 > 3 shows that five is greater than three
- <u>Less than</u> A symbol used to compare two numbers, with the lesser number given first. For example: 5 < 9 means five is less than nine
- Number line A line with numbers placed in their correct position; useful for addition and subtraction and showing relations between numbers

# **MATERIALS**

- Rubber ball (light weight, size of basketball)
- Paper
- Pencils



#### INSTRUCTIONAL DESIGN

# **Opening/Activating Strategy**

- Play Zip-Zap-Zop:
  - Place students in a circle.
  - One student passes the word "Zip" to another student by making eye contact and throwing the ball.
  - The student that catches the ball passes the word "Zap" to another student in the circle by making eye contact and throwing the ball.
  - The third student catches the ball and does the same thing with the word "Zop".
  - It repeats again with three new players saying the phrase again.
- Apply this game to rounding to the nearest ten:
  - The game works exactly the same except this time the first person throwing the ball will call out a two digit number.
  - The student catching the ball must determine if the number should be rounded up or rounded down to the nearest ten by stating "round up!" or "round down!".
  - The third student catching the ball will do the actual rounding and then throw the ball to a new person giving the new person a new two digit number.

\*This game could also be used to round to the nearest hundred if time permits.

#### **Work Session**

- Explain that students will create their own rap, song, or cheer using musical elements to demonstrate how a number rounds to the nearest ten or hundred.
- Introduce students to various forms of body percussion, such as stomping, tapping, clapping, snapping, etc. Ask students to make observations about what parts of their bodies they are using to make sound–hands, feet, arms, etc.
- Play a simple beat in the background and have students follow the teacher in practicing various body percussion techniques to the beat.
- Speed the tempo up and then slow it down. Ask students what happened with the tempo.
- Add a simple chant to the beat–this could be a familiar nursery rhyme or the lyrics of "Happy Birthday". Change the pitch of your voice (high, low) and ask students to observe what changes you made. Next, make changes in dynamics (soft to loud); ask students to make observations about the changes in sound.

# Create a Rounding Rap/Song/Cheer:

- Divide students into small groups of three to four and assign (or allow the group to pick) a number.
- Provide the following guidelines to students:
  - Students' task is to write a short rap, song, or cheer about their number's rounding journey.
  - Students' compositions must include lyrics with key rounding terms like "round up",
     "round down", "nearest ten", and "nearest hundred".
  - Students must choose to use two out of the following three musical concepts to help explain rounding:



- Body percussion: Consider what part of the body they use to make sound-high, middle or low to express what is happening with the number when it rounds up or down
- Tempo: Consider how speeding up or slowing down the tempo could connect to rounding up or down
- Dynamics: Consider how getting louder or softer could connect to rounding up or down
- Pitch: Consider how making higher pitched sounds or lower pitched sounds could connect to rounding up or down
- Allow groups time to practice their creations, focusing on integrating their chosen musical elements.
- Each group will perform their rap, song, or cheer for the class. Discuss appropriate audience participation and etiquette prior to performances.

### Closing/Reflection

- Ask students to reflect on what they learned about rounding through creating their music.
  - How did using musical terms like body percussion, tempo, pitch, and dynamics help them express rounding?
- Recap the rounding rules and how the musical elements helped communicate the journey.

# **ASSESSMENTS**

#### **Formative**

- The teacher will monitor the group's discussions and participation.
- The teacher will observe students' ability to use body percussion and change tempo, dynamics, and pitch.

#### **Summative**

- Evaluate the content of each rap/song/cheer for understanding of rounding concepts.
- Evaluate whether students used body percussion, tempo, dynamics, and/or pitch to communicate the concept of rounding.
- Assess students' ability to articulate what they learned during the wrap-up discussion.

#### DIFFERENTIATION

#### Accelerated:

- Include more complex numbers and/or rounding to the nearest thousand.
- Have students record their performances to share on a digital platform like Flipgrid.
- Have students create a visual storyboard of their number's rounding journey.
- Listen to a popular song and identify its beat, tempo, dynamics, etc. to reinforce the musical terms learned.

**Remedial:** Use simpler numbers and focus on rounding to the nearest ten.



ADDITIONAL RESOURCES		
NA		

# CREDITS

U.S. Department of Education- STEM + the Art of Integrated Learning

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<sup>\*</sup>This integrated lesson provides differentiated ideas and activities for educators that are aligned to a sampling of standards. Standards referenced at the time of publishing may differ based on each state's adoption of new standards.