

Rhythmic Beats!

Fourth Grade + Math and Music

Adapted by Kara Moulds and Melissa Tingle

CORE SUBJECT AREA

Math

ART FORM + ELEMENTS

Music

Timbre

MSCCR STANDARDS

4.OA.5

MSCCR CREATIVE ARTS STANDARDS

MU: Cr2.1.4 Organize and develop artistic ideas and work. Select and develop musical ideas for defined purposes and contexts.

PLAN / MAKE:

a. Demonstrate selected and organized musical ideas for an improvisation, arrangement, or composition to express intent, and explain connection to purpose and context.

b. Use standard and/or iconic notation and/or recording technology to document personal rhythmic, melodic, and simple harmonic musical ideas.

MU: Pr6.1.4 Convey meaning through the presentation of artistic work. Perform expressively, with appropriate interpretation and technical accuracy, and in a manner appropriate to the audience and context.

RECOMMENDED RESOURCES

Videos to watch to introduce or review patterns:

<http://studyjams.scholastic.com/studyjams/services/search-results?query=patterns>

LESSON SEQUENCE

1. The teacher will introduce and review how to play the percussion instruments, including the paddle drum, guiro, tambourine, and rhythm sticks.

2. The teacher will have students practice playing the instruments while keeping rhythm and have students count how many beats are played.

3. The teacher will discuss what timbre is. Timbre is the specific sound of an instrument or voice. It is what

PRESENT:

a. Perform music, alone or with others, with expression and technical accuracy, and appropriate interpretation.

b. Demonstrate performance decorum and audience etiquette appropriate for the context, venue, and genre.

DURATION

60 minutes

OBJECTIVES

Students will be able to know and/or do... Identify a pattern that follows a given rule. Identify the sound/timbre of an instrument to decode a number for a given pattern.

MATERIALS NEEDED

Index cards with numbers (5 sets for 5 different patterns) Percussion instruments (tambourine, paddle drum, guiros, rhythm sticks, etc.) Recording sheet (attached) Marker board to draw place value chart

VOCABULARY

Generate, pattern, sequence, rule, decode, tambourine, paddle drum, guiro, timbre.

makes a shaker sound different than a tambourine. The students have to identify the sound in order to follow the key code to decipher the number.

4. Students will be put into groups. Each group will get one of each instrument. Students can take turns playing the different instruments for each pattern.

5. The teacher will draw a place value chart on the board and review the ones, tens, hundreds, and thousands place.

6. As a class, the teacher and student will decide which instrument to play for each place value. Students will record this on their recording sheet, and this will serve as the key. This will be the universal key for the rest of the lesson.

7. Next, the teacher will give each group a different number from a pattern generated by the teacher (on index cards). The teacher will make 5 sets of patterns before the lesson. For example, the first pattern may be add 4. Group 1 may get the number 4235, Group 2 would get 4239, Group 3 would get 4243, and so on. The students will not know the pattern until each group plays their number from the pattern. The numbers should go in order of the pattern and start with group 1 each time.

8. Each group will be given time to practice their number.

9. Each group will perform its number using the instruments. For example, the number 4,315 may have four tambourine hits, three strikes on the guiro, one hit on rhythm sticks, and five beats on the paddle drum.

10. Using the place value key and music guidelines, students will decode the number and write it on the recording sheet.

11. Once each group has performed their number, the students will work within their group to identify the rule for the pattern.

12. Repeat this process four more times. In total, there will be five rounds/patterns (see recording sheet).

EXTENDED LEARNING ACTIVITIES

1. Have students generate their own patterns within their groups to play and have the class identify the rule for the pattern.

2. Extend the place value key to include larger numbers.

3. Have students write a reflection about today's lesson.

SOURCES

Lesson written by Kara Moulds and Melissa Tingle, 4th grade math teachers

TIPS + FREQUENTLY ASKED QUESTIONS

Familiarize students with percussion instruments before lesson. Give students a chance to play all the



instruments.

*If there is no access to instruments, a teacher can improvise by having students clap, stomp, beat on desk, etc.

*When playing the tambourine, hold it still, parallel to the ground and tap the edge with the opposite hand to produce a clear sound (otherwise you may produce 2 shakes per one hit).

*Color coding the patterns helps keep them separated. For example, pattern one may be on pink cards, so every group will get a pink card for the first round. Then, pattern two may be on blue cards, so every group will get a blue card for round two.