Facilitation Guide

5-7 Min Routine

Digital Guide

ARTS EVERY DAY IN BALTIMORE CITY PUBLIC SCHOOLS

Rhythm Equivalence Game

Explore Brain Science

EMBODIED COGNITION | VISUAL THINKING | ARTFUL REPETITION

ROUTINE OVERVIEW

In this entry point to the lesson, students will use whole, half, quarter, and eighth notes to represent fractional parts of a measure. Students will play/clap these rhythms in pairs/groups to create equivalent measures. For example, one student will clap a whole note, and their partner will clap four quarter notes in return to show how the same four beats can be filled with different notes. A whole note will represent four beats, a half note will represent two beats, a quarter note will represent one, and an eighth note will represent one-half of a beat.

Maryland Standards

MARYLAND STATE MATH STANDARDS

- **3.NOS.F.13** - Explain equivalence of fractions and compare fractions by reasoning about their size, recognizing that comparisons are valid only when the two fractions refer to the same whole. a. Represent two fractions as equivalent if they are the same size, or they represent the same point on the number line. b. Identify and generate equivalent fractions, (e.g. ½=2/4, 4/6=2/3) and explain why the fractions are equivalent using concrete materials, drawings, number lines, or equations.

MARYLAND ARTS STANDARDS

- **MU.AS7.I:3–5:1** - Perceive and analyze musical patterns using appropriate vocabulary.

Not in MD? View National Standards in the Digital Guide

Getting Ready

REVEAL MATH: 3rd Grade: 8-2

ARTS INTEGRATED LEARNING OBJECTIVE:
Students will be able to demonstrate equivalent fractions by clapping or playing equivalent four-beat rhythms that use whole, half, quarter, and eighth notes.

MATH DOMAIN:

Number and Operation Sense	Develop an understanding of fractions as numbers	Equivalent fractions

MATERIALS

- Slides
- Anchor Chart (printed)
- Drums or rhythm sticks (optional)
- Rhythm Examples
- Assessment Checklist

WHAT'S BEFORE: Partition shapes into equal parts, identify basic fractions (2nd Grade); models to represent fractions

WHAT'S NEXT: Generate equivalent fractions and compare fractions; find common denominators (4th grade)

MATH SKILL: Generate and explain equivalent fractions

ART SKILL: Listen to, critique, and perform equivalent rhythms that fill a complete measure of music in the 4/4 time signature

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TEACH

Facilitation Steps

1. **Review the Musical Fractions anchor chart along with whole notes, half notes, quarter notes, and eighth notes** as discussed in the aligned 7-2 lesson:
   a. *"When we divide one whole measure into four equal beats, each beat is one fourth of the whole measure. In fraction notation, we write it as ¼. The denominator, 4, is the number down at the bottom that tells us how many total equal parts there are in the whole (blue color on slide). The numerator, 1, is the number of equal parts being counted (orange color on slide). Each clap is ¼ of the whole measure because it is one part and there are four equal parts in the whole measure.*
   b. *"If you clap two quarter notes, the fraction is now 2 parts of the whole. The numerator would change to 2, and the denominator stays the same, because there are still 4 equal parts in the whole measure."*
2. **Show students this YouTube video to establish vocalizations and a sense of steady beat rhythm**
   a. One whole note- Tah-ah-ah-ah (4 beats each)
   b. Two half notes- Tah-ah (2 beats each)
   c. Four quarter notes- Tah (1 beat each)
   d. Eight eighth notes- Ta-Ti (1/2 beat each)
3. **Ask, "How might these rhythms relate to equivalent fractions?" in order to make a connection to lesson 8-1**
   a. State that *"Each measure is the same size whole (four beats)."*
4. **I Do: Model two equivalent measures (*see the demo video included with these resources*).**
5. **We Do: The teacher chooses a student to model the game with.**
   a. The teacher plays/claps a rhythm using whole, half, quarter, or eighth notes that equals four beats. The student pauses for four beats, then plays/claps an equivalent rhythm of four beats **using different notes.**
      i. (I.E Teacher claps/plays "Tah–Tah-TaTi-Tah". Student waits four counts, then responds with "Tah- ah-ah-ah. The first rhythm would consist of two quarter notes followed by two eighth notes and ending with a quarter note. The second rhythm would consist of a whole note.)
   b. Ask "Why are these two equivalent?" Refer back to the anchor chart or rhythm examples (slides 1 and 3). The teacher should stress that they are both four beats, so the whole is the same size.
6. **You Do: The teacher assigns students to work in pairs and complete the game.** They should be given 3 minutes to prepare for whole-group sharing.
7. **If time permits, students should work in pairs to perform** for the review of their classmates and receive feedback on their rhythm accuracy, variance, and length. (Refer to checklist)



SLIDES



VIDEO PLAYLIST



MATERIALS
GOOGLE FOLDER

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TEACH

Assessment & Reflection

Teachers will check for understanding by informally observing during the lesson. Teachers can use their own checklists, or classroom procedures for holding students accountable during the lesson and ensuring that students are engaged and sharing their measures with partners and the class.

CHECKLIST

Differentiation

- This activity could be adjusted for targeted small group instruction by modeling the game for the small group and providing students with a copy of the rhythm examples. Students could then select a rhythm from the examples sheet that they would like to clap/vocalize, and perform it for the group. After students have built confidence with repeating a rhythm, they can make their own that fills one measure.
- If students are struggling with this as a partner activity, this can be turned into a whole group activity. In this version of the game, the teacher would act as each student's partner. The teacher would go individually and clap rhythms with each student and give real-time feedback.
- If students have hesitation with performing in front of the class, the teacher can opt to check in with small groups and give feedback rather than having them perform.
- Fourth grade teachers may want to use this as an extension for adding fractions with like denominators (grade 4, lesson 9-2). Teachers could model adding 4 half notes to show that it equals two measures. Then the teacher could ask students to add 3 quarter notes plus 2 quarter notes, have students clap it, and discuss how many measures there are. Teachers would need to stick with 4/4 time.

RHYTHM