Facilitation Guide



10-15 Min
Small Group

Digital Guide

ARTS EVERY DAY
IN BALTIMORE CITY PUBLIC SCHOOLS

Fraction Memory Game

Explore Brain Science

EMBODIED COGNITION

VISUAL THINKING

ARTFUL REPETITION

ROUTINE OVERVIEW

In this teacher-led small group game, students will deepen their understanding of fractions by matching musical note values with their corresponding fractions. For example, a student who picks up a card with 3 quarter notes will be tasked with finding the matching card representing ¾.

Maryland Standards

MARYLAND STATE MATH STANDARDS

- **3.NOS.F.10** - Recognize and explain that a fraction represents a part of a whole. a. Partition shapes into parts with equal areas and express the area of each part using a unit fraction. b. Explain that a fraction 1/d represents one part of a whole that is divided into d equal parts, and that a fraction c/d represents c parts of size 1/d.

MARYLAND ARTS STANDARDS

- **MU.AS4.I:3-5:4** - Read and perform from iconic and/or standard notation.
- **MU.AS7.I:3–5:1** - Perceive and analyze musical patterns using appropriate vocabulary.
- **MU.AS7.E:3–5:1** - Identify and describe rhythmic patterns and relationships in music.

Not in MD? View National Standards in the Digital Guide

Getting Ready

REVEAL MATH: 3rd Grade: 7-2

ARTS INTEGRATED LEARNING OBJECTIVE:
Students will be able to identify fractions by engaging in a memory game that requires them to match musical notes to fraction models, fraction notation, and written fractions.

MATH DOMAIN:

Number and Operation Sense	Develop an understanding of fractions as numbers	Fractions are parts of a whole

MATERIALS

- Printed and cut cards
- Direction Sheet
- Scissors

WHAT'S BEFORE: Partition shapes into equal parts

WHAT'S NEXT: Represent fractions on a number line, represent equivalent fractions, and compare fractions

MATH SKILL: Representing fractions in various ways

ART SKILL: Identifying, clapping, vocalizing whole, half, quarter, and eighth notes.

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TEACH

Facilitation Steps

Prepare:

- Print game cards
  - There are three levels to the game
    - Easy= pair rhythm to fraction model
    - Medium= pair rhythm to fraction notation
    - Hard= pair rhythm to written fraction
  - Each card has letters to show which cards belong together. The cards should be sorted into Rhythm, Easy, Medium, and Hard piles before playing.
    - Please note that the rhythm cards with no letter will be used at **all** levels of the game.

Facilitate:

- Decide what level of the game you want your students to play. Then, place all of the cards that will be played face down and spread them out.
- Students take turns trying to find a matched pair (rhythm card with a matching fraction card) by turning two cards over.
- If the student picks up a rhythm card, they should clap and vocalize the rhythm.
  - Example: If the student picks up a card that has three quarter notes, they should clap three times and say "Tah, Tah, Tah".
- If a matching pair is found, the player keeps the pair and takes another turn.
  - Example: 3 quarter notes card matches ¾ on a fraction strip (Easy), ¾ in fraction notation (Medium), or three-fourths in written form (Hard).
- If a pair is not found, both cards are turned back over, and it is the next player's turn.
- The winner is the student with the most pairs.

While playing, teachers should model talking about fractions and support student understanding by giving immediate feedback:

- "How many equal notes are there in the measure?
- "What should the denominator be if there are ___ equal notes/parts?"
- "What does this rhythm represent?"

MATERIALS
GOOGLE FOLDER

Assessment & Reflection

Teachers will perform informal checks for understanding while students play the game. Teachers should be sure that students' cards match before they turn them over and provide immediate feedback if students have any misunderstandings while playing.

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TEACH

Differentiation

This activity is already scaffolded for three levels (easy, medium, and hard), which can be used to engage students at various levels of understanding.

Teachers can make the game more challenging as well, by having students play with all three levels (Easy, Medium, and Hard). In this version, students would be able to pair a rhythm card with a matching representation of the fraction, and then the two other cards would be paired and not have a rhythm card with it. (example: rhythm card with M card is a pair, E and H card is a pair)

The game is designed to be a small group teacher-led activity, but it can be adjusted to a whole group activity or competitive game based on student understanding.

DIRECTIONS