

Musical Math

8th Grade Math and Music

CORE SUBJECT AREA

Math

ART FORM + ELEMENTS

Music
Rhythm

DURATION

45 minutes

MSCCR STANDARDS

8.F.4 Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.

LESSON SEQUENCE

Music can be a fun way to learn math. Musical notes put together create rhythms, and by plotting our graphs we will create different beats.

<https://www.youtube.com/watch?v=KUtEg8Qxuxk>

1. TTW review material for graphing linear equations.
2. TTW pass out music note values sheet.
3. TTW create and clap rhythms with the whole class.
4. TTW put students in groups of 4-5 and pass out 3-4 equations.
5. TTW tell the students each X-axis positive number = a whole note, X-axis negative number = 4 quarter note, Y-axis positive number = 2 half notes, Y-axis negative number = 8 eighth notes, and Zero = whole rest.
6. TSW answer and graph each equation.
7. TSW clap rhythms based on their answers for their graphs.

EXTENDED LEARNING ACTIVITIES

www.engageny.org

www.internet4classrooms.com

www.educationworld.com

MSCCR CREATIVE ARTS STANDARDS

Mu: 1.1.6 a. Generate simple rhythmic, melodic, and harmonic phrases within AB and ABA forms that convey expressive intent.

OBJECTIVES

Students determine a linear function given a verbal description of a linear relationship between two quantities. Students interpret linear functions based on the context of a problem. Students sketch the graph of a linear function by constructing a table of values, plotting points, and connecting points by a line.

MATERIALS NEEDED

Pencil, equations

VOCABULARY

Linear Function, Graph, Quarter Note, Whole, Note, Half Note, Eighth Note, Whole Rest