

**Unit/Lesson Instructional Plan**

**Unit/Lesson Title: Music and Graphing**  
**Unit/Lesson Author: Carol Visitacion**  
**School: El Capitan Middle School**

**Grade Level: 7, 8 Pre-Algebra**  
**District: Fresno Central**

**Essential Understanding**

*What is the "Big Idea" of the unit or lesson?*

Students will understand that:

- Music is a graph with time represented horizontally and pitch vertically.
- Pitch going up is like an upward slope (positive) (p. 397) down like a downwards slope (negative correlation).
- Counting in a four / four time means a quarter note gets one count and four quarter notes can be a whole measure.

**Skills and Knowledge Students Need and/or Will Develop**

Vocabulary: pitch, graph, correlation, real-world relationships, slope, positive and negative, staff, notes, treble, bass, half, quarter, whole note, measure,

**Standards Addressed**

Music Content Standards	Content Standards in Other Subject(s)
Vocabulary	Pre-Algebra MR 3.3 Develop Generalizations and apply to new situations SDAP 1.1 Students collect and organize data p.608 frequency tables and line plots Ch. 8 Linear Functions and Graphing-Use graphs to show real world relationships, labels can help N.S. 1.2 add and subtract fractions. Students will add subtract, multiply and divide rational numbers.

**Objectives: (final performance or product)**

*In what way(s) will students demonstrate what they have learned?*

Students will be able to verbalize whether a pitch is going up or down and be represented on a graph going up or down (positive or negative).  
 Students will write notes on a musical set of five lines, the staff.

**Student Pre-Assessment**

*How do you know what the students already know? What pre-assessment activities will help you determine what students already know?*

Quickwrite: "What do you know about staves, notes, music and pitch?"  
 Follow with discussion.

### **Teacher's Needs Assessment**

*What content knowledge and resources will you need to implement this lesson?*

Pre-Algebra Book Page 235 Fractions, MR 3.3 p.40 Develop generalizations and apply to new situations, Ch. 8 Graphing

### **Final Student Assessment**

*How will you know that students have achieved the standard?*

They can write a one measure with a pitch going up, (positive), one measure going down (negative), and one up and down (scattered plot)

### **Learning Sequence**

*The Lesson Plan: What are the various steps in the unit/lesson implementation?*

Pre activities: Quickwrite, survey orally, discuss music they know, pitch going up or down?

During Activities: Discuss sheet music as a graph, write quarter notes, half notes, whole notes Write positive slopes, negative slopes, sing them in solfege. Write a measure of music up and title it "positive". Write one going down and title "negative".

After Activities: Have students sing or perform their musical pieces.

### **Vocabulary**

*What vocabulary will students need to know and learn, in order to achieve the standards addressed in the unit/lesson?*

Positive slope, negative slope, graph, horizontal and vertical axis, pitch, time, solfege Note, quarter note, half note, whole note, clef, treble and bass

### **Equipment, Materials and Resources**

*What equipment, materials, and resources will you need to implement the unit/lesson and the student assessment?* Pencils, voices, paper, notepaper

### **Additional Notes**

*What adaptations might you make to the learning sequence, to meet the needs of different students?*

*Any other notes or comments you would offer with regard to implementing this unit/lesson?*

Present in groups rather than alone. Present to partner first. Write the vocabulary as part of a daily vocabulary so the students are familiar with the word.