Angles & Music

Fourth Grade + Math and Music

Adapted by Melissa Tingle and Rachel Pomeroy

CORE SUBJECT AREA
Math

ART FORM + ELEMENTS
Music

Rhythm

MSCCR STANDARDS
4.MD.5

MSCCR CREATIVE ARTS STANDARDS
MU: Cr.2.1.4 Organize and develop artistic ideas and work. Select and develop musical ideas for defined purposes and contexts.

MU: Cr.2.1.4b Use standard and/or iconic notation and/or recording technology to document personal rhythmic, melodic, and harmonic musical ideas.

MU: Cn. 11.0.4a Demonstrate understanding of music in relation to the other arts, other disciplines, contexts, and daily life.

DURATION
45 minutes

OBJECTIVES
Students will be able to know and/or do...

1. Explore and discover angle measurements based on the fraction of a circle.

2. Use musical note values to demonstrate various angles with their arms (kinesthetic) and standard music notation.

MATERIALS NEEDED
Whiteboard/projector, circle chart/visual, legend of music note values and their correlation to the circle/angle values, classroom speakers, music in common time meter (4/4)

VOCABULARY
Angle, Degree, One-degree angle, Whole note, Half note, Quarter note, Eighth note

RECOMMENDED RESOURCES
Examples of shaded values of circles:
http://www.commoncoresheets.com/Math/Angles/Finding%20Angles%20in%20Circles/Englis h/All.pdf

LESSON SEQUENCE

Students will review the following music notes and the value for each: whole note, half note, quarter note, and eighth note. This review will take place by clapping note values to a steady beat with the music. The teacher will review the concept of the circle and the fractions of degrees.

For example, ¼ of a circle = 90/360

1. The teacher will model movements to represent each music note and what degree of a circle it represents. (i.e. moving our arms in a complete circle would be a whole note, or a full 360. Moving our arms from one side to the other would be a half note, or 180., etc.)

2. The teacher will guide students in demonstrating their understanding of each note and degree of a circle to the music.

3. The teacher will show examples on the projector of shaded values of a circle. The students will represent what is shaded by showing the appropriate movement to music and name the degree of the circle shaded. The teacher will discuss any variations that could be made with the music notes to show the same value.

4. The students will shade a circle to find the angle (in degrees) based on the musical notes given. Also, students will name the fraction and degree measure for a shaded circle.

5. Students will complete a reflection on today's lesson.

EXTENDED LEARNING ACTIVITIES

*Students can shade several circles to create a music rhythm through angles.
*Students will complete a reflection on today's lesson (see attached).

SOURCES

Lessons Written by Melissa Tingle, math teacher, and Rachel Pomeroy, music specialist.

TIPS + FREQUENTLY ASKED QUESTIONS

1. We used this lesson as an infusion lesson in which the music teacher co-taught with the general teacher. This helped reinforce the musical concepts, as well as the Math concepts.

2. Play music so students can feel a steady pulse when they move their arms. Otherwise, students have a tendency to go faster and faster.