

Place Value – An Arts Integrated Lesson Combining Math & Music

Tina Morgan

Cook Elementary Fine Arts Magnet School,
Columbus

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Standards:

Mathematics: 2.NBT.1. Understand that the three digits of a three-digit number represent amounts of hundred, tens, and ones: e.g. 706 equals 7 hundreds, 0 tens and 6 ones.

Music: 5.c. Compose a short song within specified guidelines.

Objectives:

After understanding that the 3 digits of a three-digit number represents amount of hundreds, tens, and ones, the students will compose a short song based upon the given 3-digit number. The drum will represent the hundreds place, guiros represents the tens, and the maracas represents the ones place. The students will perform their song for the class and the class will identify the number correctly based upon the instrument being played.

Activities:

Display a 3-digit number and have students identify what place value each number represents. Review the 4 families of instruments (strings, brass, woodwind, and percussion) learned in 1st grade music. Review Percussion chant with the students:



Per- cus-sion! (*pat pat*) Per- cus- sion! (*pat pat*)



Hit! Scrape! Or Shake!
(*clap*) (*slide top hand over bottom hand*) ("jazz hands" at side)

Demonstrate how to play the 3 percussion instruments that will be used in today's lesson. Explain to students that by working in small groups, they will compose a short instrumental piece based on a 3-digit number, which they will perform for the rest of the class. The rest of the class will determine what the "title" of their composition is (the title being the 3-digit number). Play an example for the students and have them tell the teacher's composition title.

Divide students into groups of 2-4. (Ideally each group should have 3 students, but in some cases there may be more than one student in a group playing the same instrument. If there must be a group of 2, the teacher may play an instrument with that group.) Each group will receive a card on which is written a 3-digit number and a percussion instrument for each student (3 different instruments in each group). Caution the students to not let other groups see their number. Allow students time to rehearse their composition, then have each group perform for the class. Have the "audience" write the number for each group's composition, then have student volunteers give the correct answer.

Extension:

Have students create an art piece of their written composition, using simple drawings of each instrument.

Examples: Drum Guiro Maracas Sticks Tambourine

Display and allow other students to play each group's composition.

QR Code for short video on Cook Elementary Fine Arts Magnet School's Facebook page of students performing a place value composition:

Materials:

- Index cards of 3-digit numbers
- Percussion instruments
- Pencils and paper
- Markers or crayons
- Construction paper

Scoring Rubric:

| | 3 | 2 | 1 | 0 |
|---|---|--|--|--|
| Cooperative Learning | Worked well with group members during the entire activity. | Worked well with group members most of the time. | Sometimes worked well with group members. | Did not work well with group members and isolation required. |
| Playing of Composition | Played composition correctly . | Played composition correctly most of the time. | Sometimes played composition correctly. | Did not play composition correctly. |
| Identification of Hundreds, Tens, & Ones | Correctly identifies hundreds, tens, & ones place in composition. | Correctly identifies hundreds, tens, & ones place in the composition most of the time. | Correctly identifies hundreds, tens, & ones place in composition some of the time. | Did not correctly identify hundreds, tens, and ones place. |
| Composition of Rhythmic Line | Correctly composes rhythmic line. | Correctly composed the rhythmic line most of the time. | Correctly composed the rhythmic line some of the time. | Did not correctly compose the rhythmic line. |
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| TOTAL POINTS | | | | |