

Rubber Band Banza

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Lesson Summary for Grade 3

This lesson plan is for the third grade. The reading, science, and activities could all be successfully used at this level. This book featured, *The Banza*, is the story of two friends, a goat named Cabree and a tiger named Teegra. Teegra gives Cabree a special gift, a banza (banjo), for protection. Later, while alone, Cabree is faced with 10 hungry tigers. Using her banza she plays a ferocious song and frightens them away. Friendship and loyalty are two admired traits in these characters. During the science activity, each child makes a banza from a small plastic container and a variety of different rubber bands. The sound concepts of vibration, pitch, and volume are examined. The lesson includes cross-curricular activities in math, social studies, art, and language arts.

Science Activity: Rubber Band Banza

Students review ideas about sound and vibration to make their own stringed instrument.

Source: Gertz, S.E.; Portman, D.J.; Sarquis, M. *Teaching Physical Science Through Children's Literature*; McGraw-Hill: New York, 1996; pp 221–232 (ISBN 0-07-064723-2)

Key Science Topics:

- sound
- design of musical instruments

Ohio Fourth Grade Proficiency Learning Outcomes for Science:

1. Organize the materials for making the banzas.
2. Observe how the various rubber bands create different pitches on the banza.
5. Predict which rubber bands will create high and low sounds.
6. Carry out the making of the banzas.
9. Warn not to stretch rubber bands and point at anyone.

Before beginning the lesson, review the following: sound is energy that you can hear; vibrate means to move back and forth; sound moves through gases, liquids, and solids; sound can be absorbed or reflected; sound can be loud or soft (volume); and how high or low a sound is, is called pitch. Consider introducing the activity with a visit from a music teacher who can expose students to various string instruments. Also allow students to view available homemade instruments, nonfiction books about sound, and pictures of musical instruments that produce sound. These can be set up in a sound center where students use different objects in the following ways to produce sound: banging, plucking, strumming, and shaking. Encourage students to bring other sound-making items (musical instruments) from home. Blowing instrument must have student's name on it and only be used by that student.

Follow the instructions to complete the activity, including reading *The Banza* by Diane Wolkstein to the class. Some helpful suggestions are: have students work at desks and use an “attention cup” if help/assistance is needed; have students select materials by table call; make it clear that rubber bands may not be stretched or pointed at anyone; have everyone participate in clean up. You may wish to provide students with pop-can tabs to use as strumming picks, but cover the ends with masking tape for safety.

Students can make additional “homemade” simple musical instruments from materials available in the classroom and/or sound center. Some options are: guitars made out of shoeboxes and rubber bands; rhythm blocks made from sandpaper-covered blocks; rhythm shakers made from pop cans filled with stones, rice, or sand; drums made from balloon rubber coffee cans; flutes made from straws; and water-filled bottle xylophones.

Math Activity

Students conduct a survey to determine favorite and least favorite string instrument and graph the findings.

Review what a pictograph and bar graph is with students. Use the survey method within the classroom to choose the four favorite string instruments and the four least favorite string instruments. Have groups of students design a survey complete with recording chart that determines the favorite and least favorite stringed instrument of 15 people. For homework each student interviews 15 people. Each interviewed person chooses one of the four in the favorite category and one in the least favorite category. The four instruments in each category are tallied on the chart. Students return with their completed surveys and use this information to design a pictograph to show the four favorite string instruments. (Remind them to make a key and give it a title.) Using the information the students also design a bar graph (complete with key and title) to show the four least favorite string instruments.

Ohio Fourth Grade Proficiency Learning Outcomes for Math:

3. Students use appropriate notation and methods for creating story problems.
8. Students use repeated subtraction to solve and explain.
24. Students use table to record and sort information and identify, compare, and predict from picture and bar graphs their favorite and least favorite string instruments.

Reading Activity 1

Students retell one story and compare it to another.

Students work in table groups of four to retell the story of *The Banza* using stick puppets. Read the book *Zin! Zin! Zin! a Violin* by Lloyd Moss to students. As a class, create and complete a Venn diagram to compare and contrast a banza and a violin. Make the books *Sound and Music* by Alan Ward and *Sound and Music* by Kay Davies and Wendy Oldfield available at the sound center for students to read.

Ohio Fourth Grade Proficiency Learning Outcomes for Reading:

1. Read and retell the story *The Banza*.
4. Students create paper puppets of the characters in *The Banza* and retell the story

- in play fashion.
5. Students analyze how the tigers may have felt about being afraid of Cabree.
 7. Students compare and contrast the violin and banza by using a Venn diagram.
 10. Show understanding of the story by predicting the eventual outcome of it.
 12. Show understanding of non-fiction books about sound and music by using illustrations to interpret information.

Reading Activity 2

Students learn two rules for syllabication.

Present the two following rules about syllabication: Rule 1: When a single consonant comes between two vowels in a word, the word is usually divided after the consonant if the first vowel is short. For example: BAN-ZA. Rule 2: When a single consonant comes between two vowels in a word, the word is usually divided before the consonant if the first vowel is long. For example: TI-GER. Instruct students with other examples and assign a workbook page for assessment.

Writing Activity

Students write an instruction piece, poem, and journal entry about banzas and The Banza story.

Familiarize children with writing an instruction paper. Review time order words such as: first, second, then, next, after, and finally. Ask: What are the time order words that we must use in an instruction-writing piece? Ask students to use the five-step writing process (prewriting, drafting, revising, proofreading, and final copy) to complete a paper on “How to Make a Banza.” Clear instructions, sequence, mechanics, and spelling should be considered in the assessment. Students can also write an acrostic poem using B-A-N-Z-A. This can be used as the title page for the instruction-writing piece. In addition, a journal entry can be assigned. Encourage students to tell of a personal experience where friendship, loyalty, or fair play has been experienced.

Ohio Fourth Grade Proficiency Learning Outcomes for Writing:

- 1 & 2. Students write a piece giving directions on how to make a banza and use details to support topic. Students write an acrostic poem.
3. The response is organized and logical.
- 4 & 6. Response contains a variety of words and an awareness of word usage.
7. Awareness of correct spelling patterns.
- 8 & 9. Work is legible and capitals and punctuation are correct.

Social Studies Activity

Students locate the country of Haiti, compare the physical features of the island to Ohio, and discuss the culture of Haiti.

Have students use the classroom wall map to locate Haiti. Students can use their text atlas to locate Haiti and realize that it joins the Dominican Republic to form the island of Hispaniola. Discuss the characteristics of an island and a sea and the physical differences between Haiti and Ohio. Ask: In what ways would these two places be alike? Different?

Create and complete a Venn diagram to show contrast and comparison. Discuss the people and culture of this island. Ask: Where do you think the first inhabitants of this country would have come from? (Note: The ancestors of present day Haitians are mostly West African slaves. In addition, there are European, mostly French, ancestors.) Ask: Do you think these influences would affect the music of Haiti? What other things in their culture might show these influences? Discussion of some other musical instruments of Haiti could be done. Use oral responses as assessment.

Ohio Fourth Grade Proficiency Learning Outcomes for Citizenship:

- 7b. Demonstrate map skills by locating Haiti as part of the island of Hispaniola in the Caribbean Sea.
- 8b. Use maps as a source of information to recognize characteristics of an island and body of water.
- 8c. Describe physical differences between Haiti and Ohio.
- 18. Identify rules of fair play in the story.

Art Activity

Students make stick puppets.

Create a stick puppet pattern for a goat (Cabree), a small tiger (Teegra), and three larger tigers using *The Banza* as a guide. Photocopy and distribute these patterns to students and have them color, cut out, and attach to craft sticks to create their puppets. Ask students to design and create a small banza to use with Cabree. Students use their puppets, along with their table group, for their retelling of the story.

Music Activity

Students play their rubber band banzas.

After construction of their banzas, students can be taught a four-chord tune for the refrain to the song, “Kum-ba-yah.” As a group, invite the class to play the tune.

Culminating Activity

Students celebrate “Banza Day.”

Invite the class to celebrate what they’ve learned after completing assessment. Students can make additional musical instruments of their choice from materials at the sound center; learn to play the tune to “Kum-ba-yah” on their banzas; view the video, *The Magic School Bus in the Haunted Museum*; and pop popcorn as a snack.

References

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