

# The Musical Instruments of Monticello

## General

### Grade Level

Elementary School

### Author Info

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### Type of Lesson

Hands-on

### Duration

90 – 130 minutes

### Interdisciplinary Connections

This lesson is designed for an upper elementary music classroom and incorporates social studies and science concepts.

## Objectives

### Overview

This lesson is designed to introduce students to the early-American musical experience, specifically instrumentation. Included as part of this lesson, is an interactive Power Point presentation which may be examined as a class or by students individually. Students will also have the opportunity to recreate Thomas Jefferson's metronome.

## Prior Knowledge

Students should have a basic understanding of rhythm, pitch, tempo, dynamics, and musical instrument families. It is also helpful if students are familiar with Thomas Jefferson's role in our nation's history.

## State Standards

New Jersey: Core Curriculum Content Standards for Music 1.1; 1.2; 1.4

## Objectives/Learning Outcomes

Students will learn about the instruments available to and/or acquired by the Jefferson family.

Students will understand the role music played in the daily lives of American families.

Students will recreate Jefferson's model for a simple metronome.

## Essential Questions

**Students should answer these questions as they explore Thomas Jefferson's Instrument Petting Zoo.**

1. How are the harpsichord and pianoforte the same? How are they different?
2. Which instrument did Thomas Jefferson play? Why did he play less often as he got older?
3. Who invented the glass armonica?
4. How is the cittern, or English guitar, different from the guitar we know today?
5. Why did Thomas Jefferson return the Hawkins Grand Piano?
6. Name two ways enslaved people were able to get instruments.
7. What does a metronome do?

## Procedures

1. *5 minutes*

Begin by playing *Money Musk* for students. While listening, students should concentrate on the musical qualities they are hearing (instrumentation, style, mood, dynamics, tempo, etc.).

*Money Musk* is available here:

<http://www.monticello.org/site/multimedia/archive-monticello-podcasts>

2. *5-10 minutes*

Discuss the piece and generate a list on the board of the students' thoughts. Explain that this was one of Thomas Jefferson's favorite tunes. Briefly discuss the significance of Thomas Jefferson in American history. Utilize the Info Sheet available at Monticello Classroom, if needed.

3. *5-10 minutes*

Ask students to imagine that they are in the middle of a blackout. What sort of things might they do for entertainment without television, video games, or radios? Explain that in Jefferson's time, there were no mp3 players, video games, or television. If Jefferson or his family wanted to play a game, they might play chess or cards. They read books or drew pictures. If they wanted to listen to music, they had to make it themselves. Often after supper, Jefferson, his daughters, and grandchildren would go into the parlor and play music and sing together.

4. *25-30 minutes*

Present the Power Point presentation of Thomas Jefferson's Instrument Petting Zoo. This can either be done as a class or individually. Have students answer the questions found in the questions section of this lesson plan.

**As a Class:** Read through each slide and ask volunteers to come up to the computer and click on different areas in the parlor. Ask students to read the information on each slide aloud and discuss the instruments in terms of family and timbre. Students should work individually to answer the questions.

**Individually:** In the computer lab, ask students to bring up Thomas Jefferson's Instrument Petting Zoo and begin the slideshow. Students can explore the presentation in their own way in order to answer the questions.

5. *5 minutes*

Have students discuss the following: What is one thing you learned about Thomas Jefferson? Which instrument would you have wanted to play? Does your family make music together like the Jefferson family did? Why do you think modern families do not make music together in this way?

6. *5-10 minutes*

Recreate Thomas Jefferson's metronome. This project can be done as a class or in groups. If you elect to do this project in groups, it is suggested to use a large area where the students can swing their fishing weights without hitting anyone or anything.

Before you begin, remind students about Jefferson's idea to create a simple metronome using string, brads (small nails), and a weight. He believed that this simple machine could be fixed to a wall or to a music stand. Read through the description and ask student to hypothesize whether his ideas will work, how long will it take to complete the project, does this sound like a practical idea for the time it was invented?

7. *35 minutes*

Follow the steps to recreate the metronome found in the materials section.

8. *5-10 minutes*

Ask students to reflect upon the project. Discuss how successful the project was, problems that arose, and the outcomes. What suggestions might you have made to Thomas Jefferson on how to improve his device?

## Materials

### Materials Needed

#### Suggested recordings:

*Benjamin Franklin & Music of the 18th Century*. Leon Klayman, 2006. CD

Dean Shostak. *The Glass Armonica*. Coastline Music, 2004. CD.

*Encore! Music from the 18th Century Theatre*. The Colonial Williamsburg Foundation, 2005. CD

The Governor's Musick of Colonial Williamsburg. *A Delightful Recreation The Music of Thomas Jefferson*. The Colonial Williamsburg Foundation, 1993. CD

*Music from the Jefferson Collection, An Evening of Songs and Sonatas*. Robert H. Smith Center for Jefferson Studies at Monticello, 2009. CD

*Music in the Age of Jefferson*. PDI, 1996. CD

Monticello music podcast available at

<http://www.monticello.org/site/multimedia/archive-monticello-podcasts>.

#### Suggested Books:

Barretta, Gene. *Now & Ben The Modern Inventions of Benjamin Franklin*. New York: Henry Holt and Company. 2006.

#### To Recreate Metronome:

Directions, self-adhesive hooks, string, small fishing weights

#### How To: Recreate Thomas Jefferson's Metronome

#### Supplies Needed:

String

5 self-adhesive hooks

Small fishing weight

Space on a wall

### **Procedure:**

1. Tie the fishing weight onto the end of the string securely. Do not cut string from the packaging yet.
2. Place one self-adhesive hook onto the wall and mark it "Largo." Estimate a length of the string and dangle the weight from the hook. Start the weight swinging and time how many swings occur in one minute (you are aiming for 52). Adjust the length of the string until it swings 52 times a minute. (The longer the string the fewer times a minute, the shorter the string the more times a minute.) When you have the correct length, cut the string and make a small loop in that end.
3. Pull the loop end of the string so that the dangling end is shorter. Set it swinging and time the number of swings per minute. For the second hook you are aiming for 60 swings a minute. Adjust the length as needed. When you have the correct length, fix the second self-adhesive hook to the wall so that the loop end can attach to it and keep the same length. Label this hook Adagio.
4. Repeat this process for the remaining hook. The third hook should be labeled Andante and the string should swing 70 times a minute. The fourth is Allegro and should swing 95 times a minute. The fifth string is Presto and should swing 135 times a minute.

### **Technology Needs**

Computer with Microsoft Office Power Point installed and projector or a computer lab with Thomas Jefferson's Instrument Petting Zoo made available on each computer.

CD player

### **Assessment**

Grade students' responses to the questions given for the Instrument Petting Zoo. The questions can be found in the Questions section of this lesson plan.

### **Accommodations**

#### **Accommodations – Students with Special Needs**

Students with special needs may be paired with a stronger student when viewing the Instrument Petting Zoo, if students are viewing it individually. If viewing as a class, read each slide aloud and pause to take questions.

## Accommodations – Advanced Learners

Advanced students may be given the task to try and create their own musical invention like Thomas Jefferson's metronome. The project may be theoretical (i.e. the student can write a proposal for their invention) or it may be realized (i.e. the student can create the invention).

## Resources

### Instrument Petting Zoo:

<http://classroom.monticello.org/teachers/resources/download/396/Instrument-Petting-Zoo/>

