Ben Franklin’s Musical Invention by Rachelle Moyer Francis

Subject Area:
- Art and Culture: Music
- History and Social Studies: US History
- English and Language Arts

Time Required: @ 45 minutes

Skills:
- Listening to music
- Observation and description
- Information brainstorming

Preparing to Teach this Lesson

From Ben Franklin of Old Philadelphia:
“When he was not too busy with everything else, Franklin loved to listen to music. You will not be surprised to hear that he invented a musical instrument that was once very popular. It was actually a set of musical glasses, each of which he had blown in the shape of a hemisphere with a hole in the middle. The largest glass was nine inches across and the smallest three inches across.

“Ben took thirty-seven of these glasses and tuned them by grinding them, using a harpsichord to give him the true pitch. He mounted the glasses on an iron spindle, with the largest glasses at each end of the spindle and the smallest in the middle. The spindle was then placed horizontally in a case with four legs. The player, sitting before the spindle, revolved it with a pedal, such as was found on a spinning wheel in those times, and touched the edges of the moving glasses with his fingers.

“Franklin said, ‘The advantages of this instrument are that the tones are incredibly sweet beyond those of any other; that they may be swelled or softened at pleasure by the stronger or weaker pressure of the fingers; that the instrument being once well-tuned never wants tuning.’

“Franklin called the instrument the armonica. Eventually it was called the harmonica. It was very popular in its day and great musicians gave concerts on it. Mozart and Beethoven both composed music for Franklin’s instrument. Franklin played the armonica, as well as the harp, guitar and violin. He and his daughter, Sally, often amused themselves with duets, Sally playing the harpsichord and singing, and Ben playing the armonica.”
Suggested Activities

Lesson preparation: Experiment with glass goblets in adding enough water to make do, re, mi, fa and sol. Mark the levels with glass marker for the lesson.

Begin by brainstorming about which inventions Benjamin Franklin created. If you are using Inspiration software, you can also map the items brainstormed and discuss which inventions are related to each other as they are named.

Arrange glass goblets and add enough water to each to pre-marked lines and demonstrate how these may be used to play a simple tune, like “Three Blind Mice.”

Explain that this parlor game existed in Franklin’s time and he wanted to find a way to improve this, so that he would not have to all this work again and again. Challenge the students to figure out how this could be improved. Have children work in groups of 4 for 8 minutes to invent a better way to make music with water and glass. When finished, have each group present their inventions.

Read Now and Ben: The Modern Inventions of Benjamin Franklin. One of the inventions named is the Glass Armonica. Add to the brainstorm list with another color to create a full list of Franklin’s inventions.

For conclusion, play the History Channel’s piece on Franklin’s armonica available on Youtube.com (@ 5 minutes).

Needed Materials:


Resource Materials: