

THE THREE LITTLE PIGS

music by W.A. MOZART adapted by JOHN DAVIES

SCIENCE: “Resisting the Elements”

Students will

- Read “The Story of the Opera”
- Discuss the pros and cons (good and bad) of the building materials used in the story
- Make an adobe brick
- Test all three building materials against wind

Copies for each student: “The Story of the Opera”, “The Characters”, Activity Worksheet

Copies for the Teacher: “The Story of the Opera”, “The Characters”, Sample A

Getting Ready

Decide which section(s) of the lesson you wish your group to complete.

Gather materials:

- Soil
- Water
- 1 Large bowl
- Straw, dry grass, or pine needles
- 1 One-pint milk carton
- Sunny window
- Sticks

Instructional Time: 2 class sessions

****NOTE****

This activity takes several days to a week to complete depending to the time it takes to dry and cure the brick in the sun.

Introduction

Read “The Story of the Opera” to your class. Discuss the different types of houses Cherubino, Don Giovanni, and Despina built. Discuss the pros and cons (good and bad) of straw, sticks, and bricks as building materials.

Some questions you may ask are:

- Why do you think straw house didn’t work?
- Why do you think the stick house still didn’t work?
- Could a straw house be a good idea? Why? Where?
- Why did the brick house work?

Use “Sample A” teaching tool as a template to create your own chart to record your student’s answers that will work for your class (i.e. Whiteboard, Smart Board, Transparencies, or Easel).

Guided/Independent Practice:

Depending on your grade level, the ability of your students, and time constraints, you may choose to have students work as a whole class, in small groups, with a partner, or individually. Tell the class that they will be making their own adobe brick. The class will then test the ability of straw, sticks, and the adobe brick to resist wind.

Adobe Brick Instructions:

1. Put the straw, soil, and water into a large bowl and mix it well. The amounts are not exact, but the mixture should be stiff and thick.
2. Open the top of the empty one-pint milk carton. Pour the mud mixture from the bowl into the milk carton.
3. Place the milk carton in a sunny window and leave it there for several days to dry.
4. When the brick is firm and dry peel off the carton.

Experiment:

When the brick(s) have dried, set up a station of straw, sticks, and bricks on a table or tables. Have students stand 2-3 feet from the table and “huff and puff” the different materials to test the wind resistance of each material. If an individual student cannot “huff and puff” the pile of sticks, keep adding students until they can move the sticks.

Then have students complete the Activity Worksheet with words and/or pictures to record what they observed when each material was tested for wind resistance.

Example: The Straw: blew away very easy.

Evaluation:

Did students make an adobe brick?

Did students understand:

- The Story of the Opera?
- The different building materials’ durability and weaknesses?

For Further Study:

Use different types of wind sources (i.e. hair dryer or fan)

Prove it!

The Dallas Opera wants to see your hard work! Take pictures, or videos, of your class’s work and email them to: education@dallasopera.org for a chance to be featured on The Dallas Opera Website (<http://dallasopera.org/learn/>) and/or at the pre-show for the Student Matinees™!

TEKS – Science

Kindergarten

112.11 b. 2 A Scientific investigation and reasoning

The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to: (A) ask questions about organisms, objects, and events observed in the natural world

112.11 b. 3 B Scientific investigation and reasoning

The student knows that information and critical thinking are used in scientific problem solving. The student is expected to: (B) make predictions based on observable patterns in nature such as the shapes of leaves

1st Grade

112.12 b. 2 A,E Scientific investigation and reasoning

The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to: (A) ask questions about organisms, objects, and events observed in the natural world; (E) communicate observations and provide reasons for explanations using student-generated data from simple descriptive investigations.

112.12 b. 3 B Scientific investigation and reasoning

The student knows that information and critical thinking are used in scientific problem solving. The student is expected to: (B) make predictions based on observable patterns

112.12 b. 6 A Force, motion, and energy. The student knows that force, motion, and energy are related and are a part of everyday life. The student is expected to: (A) identify and discuss how different forms of energy such as light, heat, and sound are important to everyday life

2nd Grade

112.13 b. 2 A Scientific investigation and reasoning

The student develops abilities necessary to do scientific inquiry in classroom and outdoor investigations. The student is expected to: (A) ask questions about organisms, objects, and events during observations and investigations

112.13 b. 3 B Scientific investigation and reasoning

The student knows that information and critical thinking, scientific problem solving, and the contributions of scientists are used in making decisions. The student is expected to: (B) make predictions based on observable patterns

Correlates: Language Arts

Gardner's Intelligences: Linguistic, Logical-Mathematical

Bloom's Taxonomy: Understand, Analyze, Evaluate

Online Resources:

<http://operatales.com/three-little-pigs.shtml> Accessed on 12/11/15

<http://www.heifer.org/readtofeed/resources/support-materials/read-to-feed-3-4-lesson-9.html> (accessed on 3/8/2016)

The Story of the Opera

The Three Little Pigs is a one-act opera adapted by John Davies from the traditional fairy tale featuring music by Wolfgang A. Mozart.

The story begins with three little pigs at their mother's house. Despina, a little girl pig who loves going to the library, is reading a book. Her brothers, Cherubino and Don Giovanni, have not yet learned how useful the library can be. But they are about to find out, for Wolfgang Bigbad, the Big Bad Wolf, is on his way. Despina explains that it is time for them to build their own house, and immediately her two brothers begin to argue about the choice of building materials. Cherubino claims that straw is the best; however, Don Giovanni is sure that sticks would be better. They turn to Despina to settle the argument and she tells them that she is going to the library to check out books that will teach her about building houses. The boys laugh as if it is the most ridiculous idea they have ever heard!

Despite Cherubino and Don Giovanni's doubts, they follow Despina as she makes her way through the woods to the library, where Wolfgang Bigbad himself is pacing back and forth in front of the building. He hasn't eaten all day and would love to get his paws on a small pig, or better yet, two or three! When he sees the three little pigs, he "hides" himself by pretending to be a statue in order to surprise them. Despina goes directly into the library while the boys play outside. Soon they realize that the "statue" is really Wolfgang Bigbad! Cherubino sees that Don Giovanni is terrified, and makes him approach the "statue" to invite him to dinner. The "statue" (Wolfgang) nods his head to accept the invitation.

Meanwhile, Despina has found all of the books she needs, and the three pigs prepare to build their houses. Don Giovanni has built his house of sticks, which Wolfgang blows down. Cherubino has gone ahead with his plans to build a straw house, but it proves to be even less "huff-proof, puff-proof" than his brother's because Wolfgang blows it down, too! Now that both of the boys' flimsy homes are gone, they run to the safety of Despina's house, which she has made of bricks. Wolfgang, now very, very hungry, cannot blow it down! He tries every trick he can think of to get into Despina's sturdy home, but it is no use!

In the end, after their scary, hair-raising encounter with Wolfgang, Cherubino and Don Giovanni both wholeheartedly agree that Despina's idea of going to the library and reading books is a pretty smart thing to do after all.

The Characters

Despina: (soprano or mezzo) A little girl pig who loves the library.

Cherubino: (mezzo or tenor) Despina's older brother.

Don Giovanni: (bass or baritone) Despina's younger brother.

Wolfgang Big Bad: (bass or baritone) The Big Bad Wolf, himself.

The Three Little Pigs

Sample A

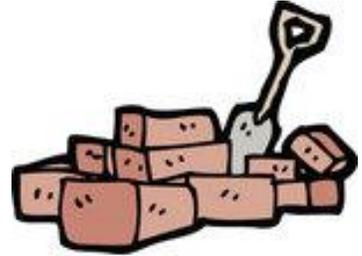
Straw



Sticks



Bricks



Good

Good

Good

Bad

Bad

Bad

Name: _____

Date _____

The Three Little Pigs
Activity Worksheet

Instructions: Write or draw what happened after “Huffing and Puffing” on the Straw, Sticks, and the Adobe Brick.

1. The Straw

2. The Sticks

3. The Brick
