

Three Little Pigs and The Big Bad Challenge

3-5 Grade STEM Start-Ups



Developed by:

Lisa Galpin

Tri-County North School District

Summer 2016

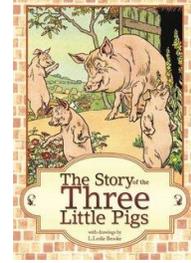
TABLE OF CONTENTS

Table of Contents.....	2
1. Three Little Pigs and The Big Bad Challenge (3-5)	3
1.1. Introduction	3
1.2. Materials	3
1.3. Language Arts Work	3
1.3.1. Explore The Text	3
1.3.2. Part 2	4
1.4. Design Challenge	4
1.5. Design Process	5
1.6. Rubric	5
1.7. Resources	6

1. THREE LITTLE PIGS AND THE BIG BAD CHALLENGE (3-5)

Primary Resource: *The Story of the Three Little Pigs* with drawings by L. Leslie Brooke

Adapted by: LearnZillion.com



1.1. INTRODUCTION

The classic folktale “The Three Little Pigs” is read with rich description, featuring a big, bad wolf huffing and puffing to blow down the pigs’ houses. In this lesson, students will read closely and use quotes to accurately provide evidence when explaining what the text says or drawing inferences from the text. Students will describe the Big Bad Wolf and the Third Little Pig’s personalities by choosing character traits along with choosing words and phrases the author uses to show the motivations of a few characters from “The Three Little Pigs.”

Finally, students will work together to solve a fun and silly design challenge. In this challenge First Little Pig and Second Little Pig are moving out of Third Little Pig’s house. The students will help the pigs by creating another house out of toothpicks that will hold 10 grams and cannot be blown down by the Big Bad Wolf. The students will engage effectively in a range of collaborative discussions with diverse partners to build on others’ ideas and express their own clearly. Students will review ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.

1.2. MATERIALS

- *The Story of the Three Little Pigs* with drawings by L. Leslie Brooke (Picture Book/ Youtube video/ PDF)
- [Character Trait Chart](#)
- Flat Toothpicks
- 10 Grams Weight
- Hairdryer / Fan

1.3. LANGUAGE ARTS WORK

1.3.1. EXPLORE THE TEXT

- Teacher will read aloud or watch the folktale of the Three Little Pigs from the Picture Book, PDF, or YouTube video.

- Students will read the text again, this time reading closely and answering the following questions (Figure 1-2) in their reading journal:
 - Provide a character trait for the Big Bad Wolf and the Third Little Pig.
 - You must provide a detail or a quote from the text to support your trait.
 - Students can turn to the [Character Trait Resource](#) for extra help.

Character	Character Trait	Evidence

Figure 1: Character trait and Evidence Chart

Character	Character Trait	Evidence
Big Bad Wolf	Sneaky	In the illustration, the wolf has innocent, friendly look on his face.

Figure 2: Character Trait and Evidence Chart

1.3.2. PART 2

- Students will read the text again closely and answer the following questions in their reading journal:
 - What words or phrases does the author use to show motivations of the characters in “The Three Little Pigs”?
 - Pick an important character’s action
 - In your own words explain, “Why did the character just do that?”
 - Quote the text, “What are the words and phrases the authors use to help us understand why the characters did what they did?”

Character Action	Evidence/ Text Clues about Motivation
Example: The mother pig sent the three little pigs away because she didn’t have enough food for them.	Once upon a time there was an old Sow with three little pigs, and as she had not enough to keep them, she sent them out to seek their fortune.

1.4. DESIGN CHALLENGE

The Third Little Pig is getting married. Therefore, the First and Second Little Pigs will have to find another place to live. Failing to learn from the third pig’s mistake, the first and second pigs buy some toothpicks. Your task is to help the little pigs build their new house out of toothpicks. You may use your toothpicks but no glue or adhesive. The goal is for your house to hold 10 grams and not be blown down by the Big Bad Wolf (fan or hairdryer).

1.5. DESIGN PROCESS

In their reading journal, students will answer the following questions:

- Ask:
 - What is the problem?
 - What are the materials?
 - What are the constraints?
- Brainstorm:
 - What are some ideas?
- Plan:
 - Draw and label a sketch for your solution.
- Test:
 - Was your challenge successful? Why or why not?
- Improve/Reflection:
 - If you were to complete the challenge again, what would you keep the same and what would you do differently? (Justify/Provide evidence for each answer.)

1.6. RUBRIC

Category	Developing (1)	Good (2)	Excellent (3)	Score
Language Arts Work	Answers are not correct. Evidence from the text does not correlate with the questions.	Answers are on track but not fully correct. Evidence from the text is attempted to support answer.	Questions are answered correctly with evidence from the text to support answer.	
Design Process	<p>Brainstorming: Ideas are unclear to connect to problem.</p> <p>Plan/Create/Build: The design and model is not aligned with the criteria, constraints, and intent of the problem.</p> <p>Improve/Reflection: Student only explains one concept either what would</p>	<p>Brainstorming: Ideas are somewhere aligned to problem but need explanation to make clear.</p> <p>Plan/Create/Build: The design and model is somewhat aligned with the criteria, constraints, and intent of the problem.</p> <p>Improve/Reflection: Student explains what would be kept</p>	<p>Brainstorming: Ideas are aligned to problem.</p> <p>Plan/Create/Build: The design and model is aligned with the criteria, constraints, and intent of the problem.</p> <p>Improve/Reflection: Student explains what would be kept the same and what would be</p>	

	be kept the same or what would be changed. Also, does not provide evidence for response.	the same and what would be changed, but does not provide evidence for response.	changed. Provides evidence for response.	
Collaboration	Ignores and distracts others. Shows no understanding of project and has a negative attitude during work time. Argues with others and does not ask or answer any questions.	Listens respectfully and follows directions. Shows understanding of project and sometimes will argue with others. Asks and answers questions.	Listens respectfully and engages in discussion. Shows understanding of project and has a positive attitude during work time. Never argues with others. Asks and answers questions and provides evidence to support answers.	

1.7. RESOURCES

This 5 Step Engineering Design Process template can help the students answer the questions for the design process during their challenge:

- Character Trait PDF: This worksheet contains a list of various character traits.
http://www.readwritethink.org/files/resources/lesson_images/lesson175/traits.pdf
- The Works: The Hands On Museum <http://teachers.egfi-k12.org/wp-content/uploads/2010/05/Post-lesson-Student-Activities-Engineers-and-the-Engineering-Design-Process.pdf>