## ADVANCED LEARNING LABS

Collaboration between NC Department of Public Instruction and AIG Teachers across the state TO ENGAGE, ACTIVATE, AND GROW OUR STUDENTS



## **Adaptation**



# ENGLISH LANGUAGE ARTS

Fairy tales and folk tales are stories that are often told out loud from memory. Because they are told over time, the stories are often adapted, and different versions are told in different places. The adaptations often reflect the culture (customs, arts, achievements) of the people telling the story.

Listen to at least two of the adaptations of Little Red Riding Hood:

- 1. Pretty Salma-Africa: <a href="https://bit.ly/20v9cMl">https://bit.ly/20v9cMl</a>
- 2. Lon Po Po- China: https://bit.ly/2WjFPB2
- 3. Petite Rouge-Cajun: <a href="https://bit.ly/38T0S2C">https://bit.ly/38T0S2C</a>
- How are the adventures and experiences of the characters the same and different?
- Which adaptation was your favorite? Why?

Write an adaptation of Little Red Riding Hood that reflects your culture and where you live.



# SOCIAL STUDIES

To live in or explore a new environment, humans have to adapt to different conditions. Watch this video to learn how explorers have adapted to extreme places: <a href="https://www.youtube.com/watch?v=Gx0sddiy91Y">https://www.youtube.com/watch?v=Gx0sddiy91Y</a>

Pick a difficult place for humans to live. Examples include under the ocean, near the polar ice caps, and on the Moon or Mars. Make a list of necessities for living in that place. Consider clothing, air, food, light, ability for movement, and anything else you consider important.

- Design a place for humans to live using these considerations.
- Draw and label your design.
- Include how humans could adapt to this extreme place.



### **SCIENCE**

Humans protect our planet and improve conditions for plants and animals by adapting our behavior. A phrase used to remind us to be friendly to our environment is "reduce, reuse, and recycle." This video explains how trash is recycled: <a href="https://thekidshouldseethis.com/post/recycle-video-for-kids">https://thekidshouldseethis.com/post/recycle-video-for-kids</a>

How can you and your family adapt your behaviors to further reduce, reuse, and recycle in order to protect the environment? Look in your recycle bin or trash. Pick an item to upcycle into something you can use. For example, you might paint a used bottle and turn it into a vase. Be creative! How can you reduce your need for this item in the future?



#### **MINDFULNESS**

Experiencing gratitude is a calming strategy that can be adapted to any space. Simply close your eyes and picture something in your mind that brings you happiness. It might be a person, an experience, or a place. Take three long, deep breaths as you think about the thing that brings you joy.

Reflect on the following questions:

- How did your body feel before you focused on the thing you love?
- How does your body feel afterward?
- Is this a strategy you could use anywhere?



### **LOGIC PUZZLE**

How many numbers can you make using the digits 2, 4, and 6? Make a list. Use each number only once. You can create numbers with one, two, and three digits.

- How many numbers could you make if digits could be repeated?
- What strategy did you use to figure out this problem?
- Could it be done a different way?



### FIELD STUDIES

Watch these videos about the adaptations of birds:

Unusual beaks: <a href="https://youtu.be/d86eS5nJikE">https://youtu.be/d86eS5nJikE</a>

Bird Wings: <a href="https://youtu.be/cDN9qqoQZr8">https://youtu.be/cDN9qqoQZr8</a>

Bird Feet: https://youtu.be/izdoAhKuZ8E

- In what other ways are various types of birds alike and different?
- What is true of all birds?

Go outside. Be quiet and still. Observe the birds around you. Make notes. You can draw and label a diagram, list the birds you see and tally how many you see of each type, or describe bird behavior.

- What statements can you make about birds?
- How do you think the birds where you live have adapted to their habitat?



# RESEARCH EXPLORATIONS

Birds have beaks that have adapted to their environment. Practice eating like a bird. For bird food use nuts, seeds, water, swedish fish, gummy worms, and marshmallows. For beaks use toothpicks, spoons, straws, tweezers, and chopsticks.

- 1. Float the Swedish fish in a bowl of water.
- 2. Thread the marshmallows onto string.
- 3. Put the gummy worms, nuts, and seeds on a plate.

Try picking up each kind of food with each bird beak. Based on your observations, consider the following questions:

- Which combinations of beaks and food allow for successful eating?
- What birds have you seen with beaks similar to the types you tried?
- How do beak adaptations help birds?



### **MATH**

There are many ways money can be adapted or changed so that the same value is represented in multiple ways.

- How many pennies are in a nickel? dime? quarter?
- How many pennies are in one nickel and one dime together?
- Which has more pennies, 4 quarters or 10 dimes?

Extension: Using quarters, dimes, nickels, and/or pennies, how many ways can you make 75 cents? How many ways are there to make \$1.00? Design a recording sheet to keep track of your thinking.





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Reference Guide

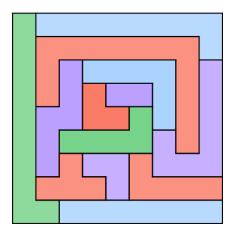
#### 2-3 Logic Puzzle:

Six Toothpicks problem:

Source: https://www.1001mathproblems.com/p/spatial-puzzles-3d.html

#### 4-5 Logic Puzzle:

Solution:



#### 10-12 Logic Puzzle:

Solution: The sheep would remain untouched.

In fact, the sheep would remain untouched if there is an even number of lions on the island and would be eaten immediately if there is an odd number of lions on the island.

Further details can be found: https://www.braingle.com/brainteasers/teaser.php?op=2&id=9026&comm=0

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## NC Standards Alignment

Grade Span	English/ Language Arts	Social Studies	Science	Math
K-1	RL.1.9	K.G.2.1	1.L.1.3	NC.1.MD.5
2-3	3.L.3.5	3.G.1.3 3.G.1.2 3.G.1.3	3.L.2.2	NC.3.MD.3
4-5	5.L5.5	5.G.1.3 5.G.1.3	4.L.1.3	NC.5.NBT.7
6-7	RL.7.7	6.H.2.3	7.L.2.3	NC.6.SP.3b NC.7.SP.3b
8-9	RL.8.7	8.G.1.2	8.L.4.2	NC.M1.S-ID.8 NC.M1.S-ID.9 NC.M2.S-CP.4 NC.M2.S-CP.5
10-12	RI.11-12.2	FP.C&G.3.1	Bio.2.1.2	CCSS.HSA.REI