

ADVANCED LEARNING LABS

Collaboration between NC Department of Public Instruction and AIG Teachers across the state

TO ENGAGE, ACTIVATE, AND GROW OUR STUDENTS

GRADES

4-5

Adaptation



ENGLISH LANGUAGE ARTS

To adapt is to make fit or modify. Choosing the right word to accurately fit or describe something involves understanding figurative language.

Go on a figurative language "hunt for the senses" in your home. Find items that you feel represent each of the five senses: touch, sight, taste, smell, sound. Take a picture of each item and create figurative language labels to describe them. Include similes, metaphors, hyperbole, personification and onomatopoeia in your labels.

Create a minimum of two labels for each item. For example, you might find a fuzzy sweater and put Sense of Touch at the top and under the photo write, "soft as a kitten" (simile) and "a warm hug for the body" (metaphor).



SOCIAL STUDIES

Adaptation takes time. Take a picture of your phone, computer or television, the vehicle you ride in daily or the food in your fridge or pantry. Now, working backwards in time, research the "relatives" of the past for the item you chose. Create a timeline to show the item's history.

Questions to consider:

- How have the technological advances in communication, transportation and agriculture impacted our world both positively and negatively?
- What impact have they had on people regardless of geographic locations?

Take it a step further, and predict how you think technological advances in communication, transportation and agriculture will continue to be adapted in the future.



SCIENCE

Humans and animals have to adapt to their environments. How have you adapted over the past year? How did COVID-19 change your/your family's behavior? What behaviors did you notice that changed in our society?

Discuss with your family what adaptations you've made over time. Are there any you think you/society will keep even after things are "normal"? Create a COVID-19 Behavior time capsule. Write down your observations and answers to these questions on small strips of paper. Put the papers in the box or jar, label it (so you don't forget what it is) and store it away to be opened in 5 years, then again in 10 years. It will be interesting to see what life is like in the future and remember the changes in the past.



MINDFULNESS

Write the word YET, with your non-dominant hand and your eyes closed. Open your eyes and look at what you wrote. Reflect on how it looks and whether it looks like how it's "supposed" to look. A fixed mindset is the belief that there is one right way to do things and that our abilities are fixed and cannot change. Now adapt or change the drawing into something else entirely (ex. - a picture, a different word, abstract art, etc.).

- How did you adapt your 'yet'?
- How did adapting your 'yet' impact how you felt about the task and about your 'yet' creation?

This flexible, adaptive thinking is a characteristic of growth mindset; it focuses on effort and flexible thinking.



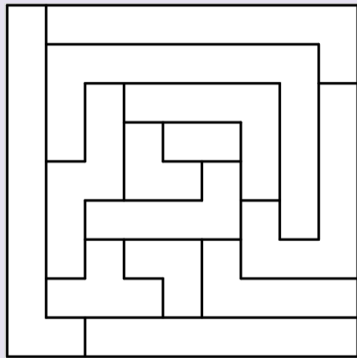
LOGIC PUZZLE

The Four Color Theorem states that it is not necessary to use more than 4 colors to color regions of a map so that no two regions of the same color are touching.

Try only using 4 colors to complete this "map". Remember, no two touching regions can have the same color.

Or, complete the puzzle electronically here: <https://www.geogebra.org/m/pjPgJdhV>

(Hint: There is more than one way to solve this puzzle!)



FIELD STUDIES

To adapt means to modify according to changing circumstances. To improvise means to compose, recite, play or sing in the spur of the moment.

Watch a Second City Kids improv show: <https://yhoo.it/3etTdsD>

Pretend you are a film critic. As you watch the show, notice how the actors adapt to the demands of the audience, the other actors and the directors. Pay attention to their ability to ask and answer questions quickly while in character, their body language, voice, eye contact, etc.

How do they respond both physically and mentally to the tasks asked of them? Dictate your notes regarding the show for your "review" and crown one actor the "Most Adaptable".



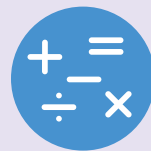
RESEARCH EXPLORATIONS

The Bajau people of Indonesia are examples of how humans can genetically adapt to an activity. Traditionally they dive to spear fish, and this means they must hold their breath for long periods of time. Read more here: <https://phys.org/news/2018-04-genetic-humans.html>

Explore extreme environments (the arctic, desert, Mars, deep sea etc) or living circumstances-such as spear fish diving.

- What would it take for a human to adapt to those places?
- Which adaptations seem appealing to you?
- Which environment would require adaptations that you are unwilling to make?

Discuss with your family. Do you have similar ideas?



MATH

"Make a Buck"

Need: A full deck of playing cards

Object: Be the first person to collect 10 cards that equal exactly \$1.00

Card Values: Ace=\$0.01, Two=\$0.02, and so on with King=\$0.13

Directions:

1. Deal each player 10 cards.
2. Players take turns drawing and discarding one card each turn, until they have exactly \$1.00 in their hand.

How would you adapt the game for fractions? Explore other games you have access to at school or home. What types of math are involved in those games? How could you modify them to include decimals and/or fractions?



North Carolina Department of
PUBLIC INSTRUCTION



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GRADES
K-12

Adaptation Reference Guide

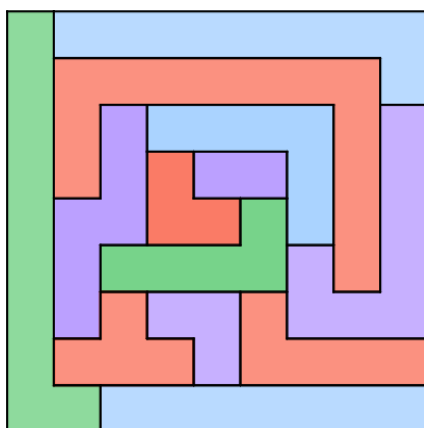
2-3 Logic Puzzle:

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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Adaptation 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	FPC&G.3.1	Bio.2.1.2	CCSS.HSA.REI