

ADVANCED LEARNING LABS

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

TO ENGAGE, ACTIVATE, AND GROW OUR STUDENTS

GRADES

2-3

Adaptation



ENGLISH LANGUAGE ARTS

To adapt is to make fit or modify. Choosing the right word to accurately fit or describe a situation involves understanding different shades of meaning among related words.

Choose at least three words you found in your reading that describe how a character is feeling. Create a graphic organizer that lists the words, what you think they mean and any synonyms you already know for the words. Use a thesaurus to find synonyms for the words you chose.

Choose one of your original words, look at all the synonyms for it and put them in order from "least to greatest" in terms of the power of their meaning. For example: smart, knowledgeable, brilliant, etc.



SOCIAL STUDIES

You are moving to a new place. Choose one of the following locations:

- 10 acres of forest about 40 minutes outside a large city
- 10 acres of farmland out in the country
- A small 10-acre island just off the coast.

You will need shelter, food, water and transportation and will have to adapt the environment to meet these needs.

- How will you do this and at the same time protect and take care of the environment?
- How will you have to adapt when living in this new environment?

Create a map of the space (your new home) as well as a flow chart of how you will utilize and adapt the environment to meet your needs, and how you will adapt and give back to the environment, as well.



SCIENCE

How do plants adapt to their surroundings? Their genes! Yes, plants have genes. Some plants can go for months, or even years, without water and then come back to life. Read more about how certain plants can survive with little water: <https://kids.frontiersin.org/article/10.3389/frym.2017.00058>

Once you have read more about plant adaptations to lack of water, plan an "Adaptable Garden." In the plan for your garden, include only plants that can survive without a lot of rain or water. Gardens often have names, and plants are arranged in creative ways. Use your imagination! You can use drawings or pictures found online.

For inspiration: <https://www.countryliving.com/gardening/garden-ideas/advice/g746/garden-plans/?slide=1>



MINDFULNESS

Draw a perfect flower. Then ask your friends and family to draw a perfect flower. How does your drawing compare? How do you feel about your drawing? A fixed mindset is the belief that there is one right way to do things and that our abilities are fixed and cannot change. Watch or read *Ish* by Peter Reynolds: <https://yhoo.it/2Oq9W5v>

Now create something "flowerish."

- How did you adapt your drawing of a flower?
- How did adapting your thinking to "ish" impact how you felt about the task and about your drawing?

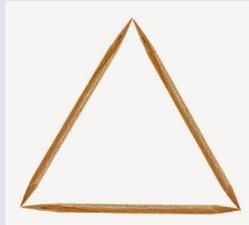
This adaptive thinking is a characteristic of growth mindset; it focuses on effort and flexible thinking.



LOGIC PUZZLE

The Six-Toothpicks Problem

Emerson formed an equilateral triangle with three toothpicks.



How can she add three more toothpicks to make a total of four equilateral triangles all the same size as the first one?



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. How are these ideas alike? Different?

Find pictures of people in magazines, ads, etc. With your friends and family, each choose a picture; don't show it to anyone. You must adapt, or become, that person. Think about and create their personality, their story.

In three minutes, you will all meet at a "party" as the persons in the pictures you chose, telling your story and getting to know the stories of others. After the "party," post the pictures and guess who each person was; talk about how you had to adapt throughout this improv exercise.



RESEARCH EXPLORATIONS

Clothing designers often have to adapt to the changing fashion trends, but they also have to consider their customers and adapt to their needs.

The Special Kids Company makes clothing for kids who have special needs. They have clothing that allows access to feeding tubes, larger leg openings to go over foot braces, wheelchair covers, and much more. (<https://specialkids.company/>)

Think about a need you might have that you wish a clothing designer might take into consideration. Maybe it's a physical need, or maybe you just wish there were accessories you could add to your favorite clothes to make them adaptable for all types of weather. Design a line of adaptable clothing and have a fashion show for others to see your ideas.



MATH

How are things we use every day adapted for our bodies? Measure and graph, in inches, the height of all the humans in your house. If you don't have a ruler, use the length of a teaspoon as a non-standard form of measurement. Now measure and graph the height of 5 different items you sit on in your house (chair, couch, bed). Measure the height from the seat to the floor. According to the *Guinness Book of World Records*, the shortest woman is 2ft tall (about 4 teaspoons), and the tallest woman is 7ft 7in (about 15 teaspoons).

Look back at the measurements. Which member of your family fits best in each seat? What would need to be adapted for taller or shorter people to fit more comfortably?

Estimate the heights of seats the shortest vs tallest woman would need to have a good fit. Create a diagram of pictures to show your findings.



North Carolina Department of
PUBLIC INSTRUCTION



ADVANCED LEARNING LABS

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

GRADES
K-12

Adaptation Reference Guide

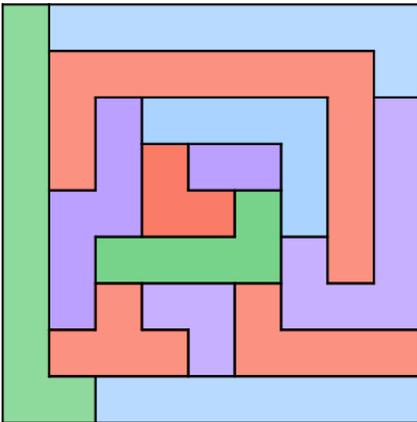
2-3 Logic Puzzle:

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>

ADVANCED LEARNING LABS

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

GRADES
K-12

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