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

Creativity

ENGLISH LANGUAGE ARTS

Creativity is the use of imagination or original ideas, especially in the production of an artistic work, such as writing. Narratives are written about real or imagined experiences, but have descriptive details, well-developed characters, and clear event sequences.

Choose five images. These images can be found online, cut from newspapers or magazines, old photographs, or a combination of these. Use these images to write a narrative.

Your narrative can be mini-stories for each image integrated into a full narrative with clear event sequences or the images can be connected to create one story or full narrative. Use the five images to add detail, character development, and clear event sequence to your story.

SOCIAL STUDIES

Creativity is often described as thinking "outside the box" and having innovative ideas. Did you know that the ideas of the Roman, Greek, Iroquois, European and British governments influenced the development of our own?

Research the governmental structures and philosophies of the above cultures to discover which ideas our Founding Fathers replicated as part of our own government.

After completing your research or study, consider the following question: Were the Founding Fathers showing creativity in their replication of governmental structures and ideas from other cultures or were they just copying? Support your opinion with reasoning, and create a video or advertisement either praising the creativity of the Founding Fathers or giving a negative review as to their lack of creativity.

SCIENCE

"Please stay seated. Keep your arms and legs inside the vehicle. Enjoy your ride!" This might sound familiar if you've ever ridden a roller coaster. Engineering, creativity, and science meet up resulting in a thrilling ride. Using gravity and friction, your body is hurled through twists and turns, sometimes even upside down. Read more about the science of roller coasters: https://www.worldsciencefestival.com/2015/06/roller-coaster-science-thrills-chills-physics/

Now create your own roller coaster. You could use a small toy car or even a marble. Make sure to test your coaster with objects that have a difference in mass. What changes did you notice?

Visit these links for inspiration:

- https://www.msichicago.org/science-at-home/hands-on-science/roller-coaster/
- https://www.youtube.com/watch?v=Of9ZBP9Dizo

MINDFULNESS

In many meditation practices when you notice your mind wandering, you refocus on your breathing to get rid of distracting thoughts. However, there is another form of mindfulness called open-monitoring meditation. In this meditation your brain is allowed to wander and as you become aware of these thoughts, follow them with curiosity.

A recent study indicated an increase in divergent/creative thinking during open-monitoring meditation. Visit this link to follow the steps of open-monitoring mindfulness: https://chopra.com/articles/mindfulness-and-creativity-do-they-mix. After your meditation session, take a moment to write down all the ideas and thoughts that came to your mind. Practice this process for a week and reflect on your ability to think creatively and problem solve.

LOGIC PUZZLE

Create your own Logic Puzzle-Logic Grid

Steps:

1. Draw a grid.
2. Make up a scenario. Use a group of 3 characters, and 3 descriptors for each character-example: 3 teachers - grade level, number of students in class, favorite subject.
3. Fill in the grid headings with all categories.
4. Write clues to help the solver get all of the answers. Write clues that tell what the character does and does not do. For some, use words related to the categories without explicitly saying the category. (Ex: The 4th grade teacher loves teaching multiplication.)
5. Try to keep the number of clues to at least 5, but fewer than 7.
6. Test solve your puzzle to make sure it works!

FIELD STUDIES

Creative thinkers often have the most original ideas. What does it mean to be original? What elements or characteristics are needed to be original? Answer these questions yourself and then ask five other people what they think. Sort and categorize the data, grouping like responses together.

Now watch the TEDTalk about creative thinking called, "The Originals:" https://bit.ly/2CCUkJj

What do procrastination, fear and doubt, and bad ideas have to do with creativity? How do these elements present themselves in the answers you received from the five people? What does it tell you about the capabilities we all have in terms of creativity?

RESEARCH EXPLORATIONS

Rube Goldberg was famous for his comics that showed silly inventions using the force and motion of a chain reaction to accomplish everyday tasks. He is the only person listed in Merriam Webster's Dictionary as an "adjective."

See examples of his machines here: https://www.rubegoldberg.com/image-gallery-licensing/

Create your own working Rube Goldberg machine! Using your knowledge of force and motion and simple machines, experiment with chain reactions to pop a balloon.

Before you try the whole machine for the first time, make a prediction: how many times do you think it will fail before it succeeds? Keep track of your data and trials.

MATH

Geometric shapes are used to create art and design. Houses are built using many right angles, playground slides use obtuse angles, a wedge of cheese is an acute angle, and a tabletop is an example of a straight angle at 180 degrees.

Now it's your turn to get creative. Choose an angle and make a "Top Ten Uses For" list. Use your imagination and think outside the box. This could be done in comic book style, like an advertisement, or even a restaurant menu. Be sure to include illustrations or pictures, and explanations where necessary. Share with classmates and family members.

What are some creative and unusual ways you could use angle measurements?

North Carolina Department of
PUBLIC INSTRUCTION

AIG
ALL DAY, EVERY DAY

PROJECT COMPLETED IN RESPONSE TO COVID-19 • SUMMER 2020
www.dpi.nc.gov/students-families/enhanced-opportunities/advanced-learning-and-gifted-education

Creativity
Reference Guide

K-1 Logic Puzzle:

Solution 4 cubes high = 10

6 cubes high = 21

8 cubes high = 36

2-3 Logic Puzzle:

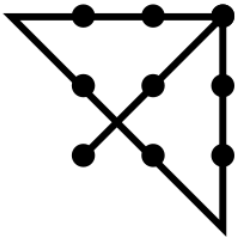
How to Create Your Own Sudoku: http://www.sudokuessentials.com/create-sudoku.html

4-5 Logic Puzzle:

Developing Your Own Logic Grid Puzzle:

https://www.thesprucecrafts.com/how-to-make-solve-logic-puzzle-2809337

6-7 Logic Puzzle:



8-9 Logic Puzzle:

Solution to Lateral Thinking puzzle: She was returning an overdue library book.

https://puzzles9.com/18-challenging-lateral-thinking-questions-and-answers/

10-12 Logic Puzzle:

Solution: start, finish, F, C, G, start, C, B, A, D, F, E, A, finish.

https://www.mathsisfun.com/puzzles/path-plodding-puzzle-solution.html

Creativity

NC Standards Alignment

Grade Span	English/ Language Arts	Social Studies	Science	Math
K-1	RL.1.4	1.H.1.3	1.E.2.1	NC.1.G.2
2-3	SL.3.5	3.E.2.1 3.I.1.10 3.E.1.1	3.P.1.1	NC.2.G.1
4-5	W.5.3	5.C&G.1.1 5.I.1.7 5.I.1.8 5.I.1.9 5.B.1.2	5.P.1.1	NC.4.MD.6
6-7	W.6.3	6.H.1.3	6.E.2.4	NC.7.SP.7
8-9	RL.8.7	8.H.3.2 8.H.3.3	EEn.2.2.2	NC.M2.A.SSE.1
10-12	W.11-12.3	USH.H.3.4 B.CX.1.3	Bio.2.2.2 ITSE 4a	NC.M3.A-APR.3