

ADVANCED LEARNING LABS

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

TO ENGAGE, ACTIVATE, AND GROW OUR STUDENTS

GRADES

8–9

Perspective



ENGLISH LANGUAGE ARTS

When analyzing literature, consider the difference in point of view and perspective. Point of view is the narrator's position in the story while perspective is the lens or attitude through which we see things.

Read "The Gift of the Magi" by North Carolina native William Sydney Porter, who wrote using the name O'Henry: <https://www.classicshorts.com/stories/magi.html>

Use a Venn Diagram to compare and contrast what either Delilah or Jim knows, thinks, and feels to what you know and feel as the reader. To support your thinking, include text evidence.

- How do these different perspectives (i.e., that of the character and that of the reader) affect the mood of the text for the reader?
- Was the author successful at creating suspense or humor? Explain.



SOCIAL STUDIES

Primary documents help us to better understand different perspectives in history. Complete this lesson published by the New York Times in collaboration with the Smithsonian's National Museum of African American History and Culture. Through a series of artifacts and primary documents (the essay), consider the perspective of the individuals who were enslaved. In your journal reflect on the questions that are asked in the lesson.

Lesson: <https://drive.google.com/file/d/1N0n02yHUe5EOwt2KTsoh8K5mfirbLX3z/view?usp=sharing>

Primary sources needed to complete the lesson: <https://drive.google.com/file/d/1RWWg1U40XwBISJ0E4vHI0lqXTBOX29VI/view?usp=sharing>



SCIENCE

A study in 2017 in a rural county in Alabama showed 35% of septic systems were failing and 15% of these homes were straight piping raw sewage into streams, creeks, or ditches. Raw sewage contains pathogens that contaminate local ecological systems and sickens humans and animals.

A homeowner can receive a hefty fine for purposefully dumping raw sewage, but fixing a failing septic system can cost more than \$20,000. For most Americans, this is not an affordable cost, which is why they may risk a fine.

Research this situation. Propose a solution to the problem so that water quality can be preserved without bankrupting citizens. Prepare a presentation to a stakeholder who can help to implement your plan.



MINDFULNESS

Gratitude journals are a great tool to help you keep track of the good things in your life. Journaling can give you a new perspective on what is important to you and what you truly appreciate in your life, and it is very easy to do. The difference between a mindful gratitude journal and just journaling is the focus on gratitude.

Gratitude journaling is best when you only do it a few times each week. Before you begin journaling, take time to think about what you are grateful for. Start with just one to three things each time you journal. Really go into depth instead of trying to make a long list. Be sure to include why you are grateful. Reflect on what your life might be like without the blessings you are writing about.



LOGIC PUZZLE

Minarets are towers from which Muslims are called to prayer. The oldest minaret dates back to 724 and was built in Tunisia in North Africa. Minarets in the utopian downtown of New Istanbul were built to be so beautiful that it was the law that from every minaret, every other minaret may be seen. When the downtown was small this was relatively easy.

Here is the problem for you to solve: <https://bit.ly/3fVFKVF>

As the city grew, the building of the minarets became more complicated. You can see an incorrect way to place eight minarets. Can you find one of two correct placements of the minarets?

Create a placement design for 10 minarets in a 20 x 20 grid. What is the maximum number of minarets you can place?



FIELD STUDIES

Prior to the Renaissance, European paintings were symbolic rather than realistic. Important figures were shown as larger than others. Starting in the 1400s, artists began using perspective to create an illusion of space and depth.

There are several kinds of perspective:

- **Linear** - using converging lines and vanishing points that make objects appear smaller the farther away from the viewer they are.
- **Aerial** - painting things in the distance with a lighter or cooler hue.
- **Foreshortening** - making an object recede into the distance by shortening its length.

Create two drawings or paintings of the same subject. Create one trying to use the technique of perspective and one without perspective. For additional information, visit this link: <https://bit.ly/2CXwbNS>



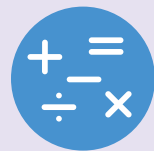
RESEARCH EXPLORATIONS

Forced perspective is an illusion used to make an object seem farther away, closer, larger, or smaller than it actually is. Search Google images for some forced perspective images. Were you able to determine how the illusions were created?

Check out this video for the mathematics behind forced perspective: https://www.youtube.com/watch?v=pl4ah_HvWkg

Watch to see how to use forced perspective to create a scene from *The Hobbit*: <https://www.wired.com/2012/12/how-to-make-a-hobbit-with-forced-perspective/>

Research different ways to create a forced perspective illusion and use your research to create several photos. Create a gallery of forced perspective art to share with others.



MATH

Veronica is making patchwork cushions. She uses material cut into triangles and squares in the pattern shown in the picture. The back of the cushions are made of plain material and are not patchwork. Veronica makes many other sizes. For a visual of Veronica's cushions, use this link: <https://bit.ly/2OL6XF5>

Write a function to help Veronica determine the number of triangles she needs for different sizes of cushions. Explain how you figured it out. Write a function to help Veronica decide the number of squares for different sizes. How does your function model the cushions Veronica is making? Create a function with a different structure. The new function should give you the same result but should be written in a different format.

Which function best models Veronica's cushion-making situation? Explain your reasoning.



North Carolina Department of
PUBLIC INSTRUCTION



Perspective Reference Guide

2-3 Logic Puzzle:

Solution: If we assume that the blocks are stacked without any glue, then this is the configuration of the blocks, with 3 blue, 1 green and 1 red.

If we assume that the blocks are fastened together in some way, then we don't need one of the blue supporting blocks from the bottom layer.

4-5 Logic Puzzle:

Solution: The blue car and red car will crash into each other. They are in the same lane going in opposite directions. The pink car is safely in the other lane.

One way to see this is to cut the two lanes apart. You end up with a single strip of paper, but this time it is twisted twice, so it is no longer a Mobius strip. (It has 2 sides rather than 1.) You can see from the photo that the red and blue cars are on one side of the strip, heading toward each other.

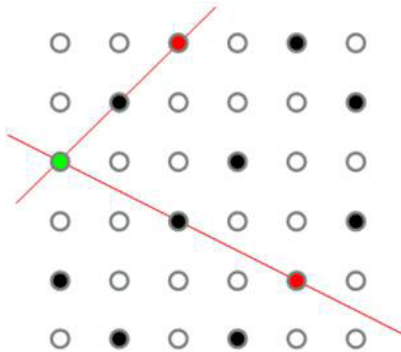
4-5 Math:

Answer: https://drive.google.com/file/d/13csWWKfqDkr_NvB2d8-yW3-3kpEyBi8m/view?usp=sharing

Source: <https://www.1001mathproblems.com/search/label/2D%20spatial%20reasoning>

8-9 Logic Puzzle:

Solution:



10-12 Logic Puzzle:

Solution: All the tools are random things that are not going to help you. All you have to do is pour some water into the pipe so that the ball swims up on the surface.

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GRADES
K-12

Perspective NC Standards Alignment

Grade Span	English/ Language Arts	Social Studies	Science	Math
K-1	L.1.4	1.C.1.1	1.E.1	NC.1.G.2
2-3	RL.3.6	3.H.2.2 3.H.1.3	3.E.1.2	NC.3.NF.4
4-5	RL.5.6	4.H.1.1 4.H.1.2 4.H.1.5	4.P.3.2	NC.4.NF.1
6-7	RL.7.6	6E.1.1	6.E.2.4	NC.6.NS.8
8-9	RL.8.6	8.H.1.3	8.E.1.4	NC.M1.A.SSE.b NC.MIA.CED.1
10-12	RI.11-12.4	AH1.H.4	BIO.2.1.4	NC.M2.G-CO.5