

# 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

## Perspective



### ENGLISH LANGUAGE ARTS

Perspective is impacted by many things such as age, gender, race, experiences, beliefs and culture. A narrator's or speaker's point of view influences how events are described.

Choose two novels you've already read, or two that you'd like to read, that take place during the same historical time period, such as The Great Depression, World War II or the Civil Rights movement. Analyze the age, gender, race, experiences, beliefs and culture of the narrator of each story.

Using your notes, create a historical mural created through the eyes of the narrators of each story. The completed mural should include both perspectives about the time period in which the stories are set and should capture both the differences and similarities in perspective.



### SOCIAL STUDIES

Read about the life of American Indian groups in North Carolina before and after European exploration: <https://www.ncpedia.org/american-indians/before-europeans>

After reading, "step inside" the perspective of an American Indian living in NC **before** the Europeans arrived. Place yourself within this context and "become" this person as you write, reflecting upon the following questions: What can you see or notice around you? What might you know or believe? What might you care deeply about? What might you wonder about?

Complete the same reflective writing exercise from the perspective of an American Indian in NC **after** the Europeans arrived, asking the same questions from this new perspective. Compare the two perspectives. How are they similar? Different? Create an image to represent each perspective.



### SCIENCE

Rainbows are circles? Yes! From our perspective we see an arch because the ground absorbs the bottom half of the circle of light. However, rainbows are not the only phenomenon that occur naturally in the sky. Sun Dogs, or parheliion, occur in winter when the sun's light refracts off ice crystals. Have you seen a sun dog?

Learn more about sun dogs here: <https://wonderopolis.org/wonder/what-is-a-sun-dog>. Ask if anyone in your family has ever heard of sun dogs? If not, explain what you've learned to them. While the word "rainbow" can be traced back to the Old English "renboga" (rain + bent or arch), it is not certain where the term "sun dog" came from.

Create a story to explain the term from the perspective of a scientist who is seeing one for the first time.



### MINDFULNESS

Gratitude is the expression of appreciation for what one has. Recognizing that something has value separate from monetary worth sometimes requires a change in perspective.

Journal through photos this week, using the perspective of gratitude. Each day your photos will focus on a different theme: energy, people, nature, play, beauty, comfort and music. At the end of the week, look through your pictures of simple, everyday things that, with a change in perspective, aren't so ordinary to you anymore.

Create a presentation of photos and include a poem that captures how this exercise changed your perspective. Share your presentation with a family member or friend, explaining why you're grateful for these things.



## LOGIC PUZZLE



Three cars (pink, blue, and red) drive on a highway twisted into a Mobius strip, as shown below. If each car stays in its lane and if they all drive exactly the same speed, what will happen? Will the cars meet each other?



## FIELD STUDIES

Visit Tate Gallery in London and choose an artist or style of art that you would like to learn more about: <https://www.tate.org.uk/kids/explore>

Before reading or listening to the explanation about the art piece you have selected, look closely at the piece and do the following:

List what you see or can observe with your eye. Record what you think might be happening based on what you see. Then list what you wonder, asking broader questions that push beyond what can be seen.

How has your perspective about the piece changed, after analyzing it? Now, read about the art piece and listen to the explanation. If you are able, see what you can learn about the artist as well. How does this impact your perspective?



## RESEARCH EXPLORATIONS

Our individual perspectives shape our opinions and how we view the world. However, our perspective can create bias. For instance, people often confuse "correlation," a relationship or connection between two variables and "causation," one thing caused another. Example: Every time I flipped a quarter with my right hand, it landed on heads. Does this mean flipping the quarter with your right hand caused it to land on heads? What if I told you I only flipped the quarter once? Is that convincing? What if it happened 1,000 times? More convincing?

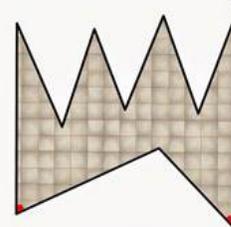
Experiment with your own bias: According to According to the Kids Count Data Center, 57% of "Young Children" are not in school. What is a positive statement/perspective you can make about this data? Negative? Which perspective do you most agree with? Why?



## MATH

### The Museum Problem

The diagram below shows the floorplan of an art museum. Two guards stand in corners of the room (where the red dots are). What part of the room can't the guards see from where they stand? Assume they can see 360 degrees around but (obviously) not through walls.



Is it possible to place the two guards so that they can see the entire museum? If so, where should they stand?



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.

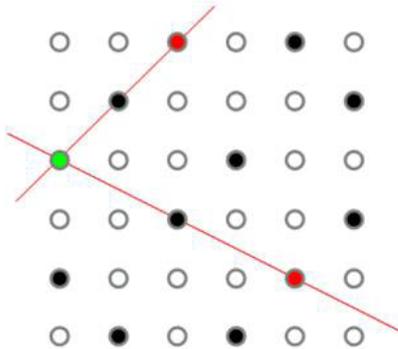
### **4-5 Math:**

Answer: [https://drive.google.com/file/d/13csWWKfqDkr\\_NvB2d8-yW3-3kpEyBi8m/view?usp=sharing](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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**K-12**

## Perspective NC Standards Alignment

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