

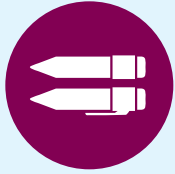
ADVANCED LEARNING LABS

A partnership between the North Carolina Department of Public Instruction and Duke TIP
TO ENGAGE, ACTIVATE, AND GROW OUR STUDENTS

GRADES

8–9

Lab 7 • Interactions



ENGLISH LANGUAGE ARTS

Writers often use specific writing styles to create clever interactions between the text and audience. Choose a technique below to use in a narrative text you create (poem, short story, monologue, etc.)

- **Full Circle Ending** - The first sentence must also be the last sentence of the paragraph. Come “full circle” at the ending.
- **Repetition for Effect** - Choose a specific word or phrase to repeat to stress an idea. Ex. *She knows* I’m only allowed to drive on Sundays. *She knows* I’ll have to pay for gas.
- **Hyphenated modifier** - Use a hyphenated adjective to add emphasis to your descriptions. Ex: When I saw the look on my mom’s face, I had one of those *this-is-the-last-moment-of-your-life* feelings.



SOCIAL STUDIES

The Founding Fathers created a system of federalism through the Constitution. The United States has shared powers between the federal, state, and local governments.

This week you’ll look at how these groups interact and impact the daily lives of citizens. Watch the video that is linked below to review the basics of federalism. Link: <https://constitutioncenter.org/learn/hall-pass/federalism>

Think about the ways each level of government affects educational policies. How do you think federal, state, and local government should interact regarding education policy?



SCIENCE

Baking can be very similar to a science experiment! You have to monitor and adjust your ingredients based on how they may react while cooking, just like materials used in a science experiment.

Lots of people are baking more in the past two months. In baking cakes, there are many changes from raw ingredients to the final baked product.

Describe the changes that have occurred, identifying them as chemical or physical. Identify the ingredients that you think are vital to those changes and what would happen if the amounts of those ingredients were increased, decreased, or even left out.

Design a way to test your predictions.



MINDFULNESS

Find a positive way to interact with your teachers this week. Send a message of appreciation for their hard work during these uncertain times.

Get creative and get your classmates involved, like combining video messages. Coordinate with classmates and before a remote class is over everyone holds up paper with hearts drawn on them and tell your teacher "Thank You!"

Let’s give our teachers some positive interaction as the school year ends.



LOGIC PUZZLE

I Scream, You Scream, We All Scream...for Logic Puzzles!

Place the Ben & Jerry offerings in the grid to solve the puzzle. Share with a friend or family member and see if they solve the puzzle quicker than you!

Link: <https://bit.ly/3gf8yPV>



FIELD STUDIES

This week you'll look at how we interact with space, by doing a virtual tour of NASA's Electric Propulsion and Power Laboratory and the Simulated Lunar Operations Laboratory at the following links:

<https://www.nasa.gov/specials/epl360/>

<https://www.nasa.gov/specials/slope360/>

Click on the tags in the tour to learn more about the features in the lab. What did you notice and wonder about the equipment you saw?

What role do you think the US should have in continued space exploration? Explain why we should or should not justify the expense in today's time.

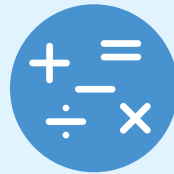


RESEARCH EXPLORATIONS

How we interact with one another matters. Researchers found that receiving compliments can cause people to perform better. Read about one such experiment at this Link:

<https://www.medicaldaily.com/science-explains-why-compliments-feel-so-good-243457>

Design your own experiment with family members or people you know to test the effects of receiving compliments. Use that study as inspiration, but do not replicate it. Be sure to include a control and experimental condition. The larger your sample size, the more reliable your results, so try to include several people in your experiment. Based on your results, what were the effects of receiving compliments? How might you change your interactions as a result?



MATH

Is beauty really in the eye of the beholder? Mathematics would argue no, saying that *phi* is the beauty indicator that shows up in our interactions with nature and humans. Explore the links listed on this website to learn more about the Golden Ratio.

Link: <https://www.beautyanalysis.com/research/our-research/>

On the Beauty Code page, use the information to gather data from your environment in search of the beautiful *phi*. How do the things you consider beautiful align with the mathematics of the Golden Ratio? What unique creation can you make that displays math's definition of beauty?

Have your thoughts changed regarding the question: Is beauty really in the eye of the beholder?



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PUBLIC INSTRUCTION



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Works Cited and Answers

Works Cited- Math:

2-3 and 4-5 activity based on Fractal Leaf Art from Math Engaged -
<http://mathengaged.org/resources/activities/art-projects/fractal-leaf-art/>

Field Studies:

For more information about the future of spaceflight, read “Future of Spaceflight and NASA Missions Information” <https://www.nationalgeographic.com/science/space/space-exploration/future-spaceflight/>

English Language Arts:

- 8-9 May serve as mentor texts:
- “Did I Miss Anything?” by T. Wayman
 - A&P by J. Updike

Logic Puzzle

6-9 Solution: <https://bit.ly/2ZuCpht>

Advanced Learning Lab 7

NC Standards Alignment

Math	
K-1	N/A for Lab 7
2-3	NC.2.MD.1, NC.2.MD.4; NC.3.MD.2, NC.3.NF.4
4-5	NC.4.NF.2, NC.4.NF.3, NC.5.NF.1, NC.5.NF.4
6-7	NC.6.RP.1
8-9	Not aligned to a specific NCSCOS standard
10-12	N/A for Lab 7
English Language Arts	
K-1	N/A for Lab 7
2-3	W.3.3
4-5	W.5.3
6-7	W.7.2.c.
8-9	W.9-10.3d W.9-10.3e
10-12	N/A for Lab 7
Science	
K-1	N/A for Lab 7
2-3	3.P.2
4-5	5.P.3
6-7	6.P.2, 6.P.2.2
8-9	8.P.1
10-12	N/A for Lab 7
Social Studies	
K-1	N/A for Lab 7
2-3	3.G.1.3
4-5	5.C.1.2
6-7	7.H.2.3
8-9	8.C&G.1.1
10-12	N/A for Lab 7