

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

Interdependence



ENGLISH LANGUAGE ARTS

Words and music are vital in creating tone and mood. This interdependence is evident in books on tape, podcasts and movies.

Using a book you just finished reading, or one you're reading currently, match two big events from the story with background music to capture the tone/mood/importance of the events you chose.

Create two pages/slides, one for each event. Each page/slide will have the following: title of the book, brief description of the event and its importance, title of the music you chose and explanation of why you chose it. Choose a cool background/visual to represent the setting during that moment, as well.

Share your creation with family and friends.



SOCIAL STUDIES

Interdependence is a state of mutual dependence, with each element being equally important. Analyze the rights and responsibilities of United States citizens in relation to the concept of "common good" according to the U.S. Constitution using these two sources: <https://www.britannica.com/topic/common-good>

<https://www.uscis.gov/citizenship/learners/citizenship-rights-and-responsibilities>

Create a chart listing the characteristics of all three elements: rights, responsibilities and common good. How are they similar? Different?

How do these relate to the following quote: "*The true measure of any society can be found in how it treats its most vulnerable members.*" - Mahatma Gandhi. How do these elements relate to the concept of interdependence?



SCIENCE

Interdependence in your yard: How are plants and animals interconnected?

Make a terrarium: <https://www.theecologycenter.org/making-a-terrarium/>

Observe over the next days and weeks. What are some examples of interdependence in your little ecosystem?

Create a poster/plaque as found in museums to teach viewers about what they can observe. Create other terrariums on paper, or with non-living objects to represent other types of ecosystems. Add these, with plaques, to your museum of ecosystems. Give your museum a name. Invite friends and family to view.



MINDFULNESS

Many people believe in a connection between the mind and body, saying the two are interdependent. Think about a worry you have and create a simile or metaphor to describe the feeling. Examples: My shoulders are as tight as a guitar string, or my mind is a pinball machine.

Find a quiet spot to lie down or sit-up if you prefer. Start by focusing on your feet. Gently tighten the muscles in your feet, hold for a few seconds and release. Continue this process all the way up your body. How do you feel?

Create a new simile to describe your mind and body post meditation. Examples: My shoulders are as loose as a Shar Pei's skin and my mind is a quiet meadow.



LOGIC PUZZLE

15 Puzzle

Arrange tiles consecutively from 1-15. Tiles can only SLIDE (up and down, left and right).

You can find a virtual version here:

<https://lorecioni.github.io/fifteen-puzzle-game/>

You can also make your own using 15 squares cut and numbered. Arrange in a 4 by 4 grid. Puzzle pieces cannot slide outside the grid.



You can also create an 8 Puzzle the same way, using a 3 by 3 grid instead.



FIELD STUDIES

Interdependence is a mutual reliance and connectedness. Visit the Random Acts of Kindness website and read about the studies showing the mutual connection between health and kindness: <https://www.randomactsofkindness.org/the-science-of-kindness>

Become a "doctor of kindness" and create a "kindness prescription" for yourself, listing random acts of kindness that you could perform for your friends, family and others. As you do, keep a "medical journal" of how it makes you feel and reflect upon your own health.

Share your "research" with others and ask them to do the same. How are mood, health, anxiety and energy interdependent and how are they affected by the kind acts we do?



RESEARCH EXPLORATIONS

Many feel that our society is interdependent, and the onset of COVID-19 shed light into just on whom we depend and in what ways we need to strengthen that interdependence.

Read this opinion article from the Seattle Times: <https://www.seattletimes.com/opinion/when-the-pandemic-passes-we-must-not-forget-those-who-helped-us-through/>. Think about the jobs they consider "essential." Consider the changes they mention that have taken place and still need to take place.

Discuss the changes your family has noticed since COVID-19. Think about what it means to be an "essential worker." Who are they?

What have you discovered is "essential" to you? Your family? Your town? What are the positives in this example of interdependence? What are some negatives?



MATH

How is a math equation interdependent?

Cross-Math

	x		-		=	10
-		x		x		
	x		+		=	6
÷		-		-		
	+		-		=	3
=		=		=		
1		5		7		

Try solving this math puzzle. You know what the equation equals, but to solve you have to put in the missing factors, addends, minuends, subtrahends, dividends, and divisors.

Try making your own "Cross-Math" puzzle equations.

Link for more math puzzles: <https://www2.stetson.edu/~efriedma/published/cross2/index.html>



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PUBLIC INSTRUCTION



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Interdependence Reference Guide

2-3 Field Studies:

To learn more about ovenbirds: <https://www.audubon.org/field-guide/bird/ovenbird>

4-5 Math:

Link for more math puzzles: <https://www2.stetson.edu/~efriedma/published/cross2/index.html>

6-7 Logic Puzzle:

Answer: lime,line,fine,fire,wire\

6-7 Science:

Based on a lesson written by the Kentucky Farm Bureau

8-9 Mindfulness:

Use the link to learn more about Chief Seattle: <https://historylink.org/File/1427>

8-9 Math:

Link to create a hexagon on Desmos: <https://www.youtube.com/watch?v=l6brztHaKIA>

Use function notation to describe transformations that would create economically efficient honeycombs.

10-12 Logic Puzzle:

Solution: S is the father of T who is the sister of R, hence R and T are siblings. R is the brother of U, so R is male.
Therefore R is the son of S.

Try additional problems on Smartkeeda! https://www.smartkeeda.com/Reasoning_Aptitude/Verbal_Reasoning/Blood_Relations_Quiz/newest/all/passage/Blood_Relation_Quiz_4/page/2

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Interdependence NC Standards Alignment

Grade Span	English/ Language Arts	Social Studies	Science	Math
K-1	RI.1.5 RI. 1.6	K.G.1.3 K.G.1	1.L.1.2	NC.K.CC.5
2-3	RL.3.7	3.C&G.2.1 3.I.1.8 3.I.1.10 3.I.1.11	3.P.1.1	NC.3.MD.1
4-5	RL.5.7	5.C&G.2.2 5.C&G.2.1	5.L.2.3	NC.5.OA.2
6-7	RL.6.3	7.E.1.1 7.E.1	6.E.2.4	NC.7.RP.3
8-9	RI.9-10.8	FP.C&G.3.4 CL.C&G.4	8.L.3.2	NC.M2.IF.2
10-12	RL.11-12.6	CE.E.2.2	Bio.2.1.3	DCS.GT.1