

ADVANCED LEARNING LABS

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

TO ENGAGE, ACTIVATE, AND GROW OUR STUDENTS

GRADES

K-1

Interdependence



ENGLISH LANGUAGE ARTS

A diagram is a labeled drawing. The words and pictures are interdependent to help the reader understand the information.

Use the diagram and article to learn about a honeybee: <https://www.enchantedlearning.com/subjects/insects/bee/Honeybeecoloring.shtml>

- Write down three interesting words. Ask an adult if you need help pronouncing them.
- What information can you learn from the diagram that you cannot learn from the article?
- How do the diagram and article work together?

Choose something you understand well, like your pet or a toy, and draw and label a diagram. What is important to include?



SOCIAL STUDIES

People depend on the land. The landforms and water around us influence our ability to grow food, build towns, travel, and find fresh water. People affect landforms too.

Watch this video to learn about basic landforms: https://www.youtube.com/watch?v=KWTDmg8OI_Y

Think about where you live. Make a list of landforms near your home. Ideas include mountains, hills, rivers, the ocean, lakes, valleys, and islands.

- How do these landforms affect the people who live there?
- How do the people affect the landforms?

Pretend you are one of the landforms. Write a letter to people explaining how they help you and harm you. Explain your job on Earth.



SCIENCE

Plants and pollinators are interdependent. Pollinators are animals that drink nectar from plants. When they drink nectar, they move pollen allowing fertilization and the production of seeds for new plants. Pollinators need the nectar and/or pollen for food. Plants must have pollinators. Pollinators must have plants.

Visit a garden, field, or park near your home where there are many plants. Closely observe the plants for pollinators for 20-30 minutes. Keep tally marks for all the different kinds of pollinators you see: bees, butterflies, ants, hummingbirds, beetles, and others.

Record your observations in a science notebook. Create labeled diagrams or describe in words the plants and the pollinators that you see. What do your observations tell you about pollinators in your community?



MINDFULNESS

Understanding interdependence can help us find connections between what has happened, how we respond, and how things might look different in the future.

Think of a time when you felt wronged by a situation, event, or person. How did you feel in your body? What emotions can you connect to those feelings?

Now consider how you handled that situation. What did you do? How did it make you feel?

Watch this video about square breathing:

<https://www.youtube.com/watch?v=YFdZXwE6fRE>

- How do you feel after practicing square breathing?
- How might this type of breathing help you calm down when you feel stressed?



LOGIC PUZZLE

Sam, Annah, Garrison, and Camille all have some money.

- Sam has 5 dimes.
 - Annah has the coin of which 4 equal one dollar.
 - Garrison has 10 cents more than Annah.
 - Camille has 5 cents less than Sam.
- How much money do they each have?
 - Order the amounts from most to least.
 - If they added their money together, how much would they have?



FIELD STUDIES

Plants and animals (including humans) are interdependent. Watch this video to learn the ways they depend on each other:

<https://www.youtube.com/watch?v=YGxzFBRBwp>

- What surprised you in this video?
- What would you like to learn more about?
- Think about your own relationship with an animal or plant. How are you interdependent?

Pick one of the relationships you noticed in the video and create a comic strip featuring two things that depend on one another. It can be a serious or humorous (funny) comic.



RESEARCH EXPLORATIONS

Bees are an amazing pollinator and a perfect example of interdependence with plants. Honeybees are also interdependent on each other in their hives. One bee cannot live without all the other bees.

Watch this video to research how bees use pollen: <https://www.youtube.com/watch?v=sAKkjD3nEv0>

Some people are scared of bees, but we also depend on them on Earth. Watch this video to research why we need bees:

<https://www.youtube.com/watch?v=c963NhkfNY0>

Use your research on bees to make a Public Service Announcement that convinces people to be nice to bees. Use details from this exploration to support your arguments.



MATH

Explore the interdependence of patterns using a bag of colorful candies like m&ms or jelly beans.

1. Count how many candies you have in all.
2. Sort the candies into piles by color. How many are there of each color?
3. Create a pattern with two colors. How many candies did you use?
4. Create a pattern with three colors. Can you create more than one pattern with three colors?
5. After you have created patterns, how can you quickly determine the number of candies in each pattern? Is one counting strategy faster than another?
6. How can you use patterns to help you count?
7. Where else in life do you see patterns?

Share with a friend how parts of a pattern are interdependent.



North Carolina Department of
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