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

Interactions

ENGLISH LANGUAGE ARTS

Picture books combine illustrations and words to tell a story. Their interactions give us clues about the story and both the words and the pictures are important to our understanding.

Choose your favorite or a new to you picture book. Read it!

- If there were no pictures, how would that change the story?
- If there were no words, how would that change the story?
- How do the illustrations and words interact to make the story more interesting?

Challenge: Design your own picture book; use words and illustrations to tell your story.

SOCIAL STUDIES

How do people interact with the environment? Choose two places in North Carolina from the 360cities website: **https://bit.ly/3fGAxY1**

Look at the pictures of the places you selected. Consider how these places have been impacted by people.

- What do you see in the pictures that is natural?
- What do you see that is made by humans?
- How do people help and harm the environment?

Think about your own neighborhood. Draw a picture or make a list of ways people interact with the environment where you live. Some examples are planting, cutting trees, construction, and feeding birds.

SCIENCE

How do substances interact? Ask your parents to help you with this activity to find out.

1. Collect two empty plastic water bottles. Fill one with ¼ cup water. Fill the other with ¼ cup vinegar.
2. Gather two balloons. Put two tablespoons of baking soda into one and two tablespoons of sugar into the other.
3. Carefully attach the balloons around the mouth of each bottle - baking soda with vinegar, sugar with water. Don't let the baking soda or sugar drop into the liquids.
4. Make a prediction.
5. Lift the balloons so the baking soda and sugar drop into the liquids.
6. Record your observations.

Consider the water, vinegar, sugar, and baking soda. Use your senses to describe the properties of each substance.
Which interaction caused a chemical reaction?

MINDFULNESS

How do your senses help you interact with your environment?

Take a walk in your backyard or neighborhood. Use your senses to help you explore.

- What do you see?
- What do you hear?
- What do you smell?
- How does the ground feel beneath your feet?

When you go back inside, draw a picture or write in a journal about your walk. Show how your senses helped you interact with the things you encountered. How does your body feel after your walk?

LOGIC PUZZLE

Even numbers can be divided into two equal groups. Odd numbers have one left over. For example can 5 be split into equal groups? No, it cannot. This means 5 is an odd number! Which numbers between 1 and 10 are even? Which are odd?

After you have determined which numbers are odd and which are even, think about how they interact.

- If all the odd numbers are silly and all the even numbers are serious, will an odd number plus an even number be silly or serious?
- What about an even plus an even?
- What about an odd plus an odd?
- What big statement can you make about how odd and even numbers interact?

FIELD STUDIES

Humans interact with animals in many ways. How do people interact with their pets? One type of special relationship a dog can have with a human is as a service animal. Watch this video to learn about service animals: **https://www.youtube.com/watch?v=aXTX88WKHaE**

- What is something you learned in this video?
- What do you wonder after watching it?
- Why are service animals important in our world?
- How can interactions between humans and animals affect humans?
- How can interactions between humans and animals affect animals?

Make a cause and effect chart that illustrates the interactions between animals and humans. Use illustrations and words.

RESEARCH EXPLORATIONS

Code interacts with a computer and tells it what to do. Can your family play this game to interact like a computer and a coder?

1. Select a room in your home to be the starting room. Blindfold Player 1 (the computer). Both players know where the game starts.
2. Player 2 (the coder) gives Player 1 clear detailed directions to lead them to a new room.
3. Player 1 goes to the new room (the end of the code) and tries to guess where in the house they are located.

What is the fewest number of directions you can give to get to a certain destination? What did you learn about how a coder interacts with a computer? Do you prefer being the computer or the coder?

MATH

Katie has a number machine. Numbers interact with the machine and come out a different number.

- When she enters the number 2 in the machine, the number 4 comes out.
- When she enters the number 5 in the machine, the number 10 comes out.
- When she enters the number 10 in the machine, the number 20 comes out.
- When she enters the number 100 in the machine, the number 200 comes out.

What happens to numbers when they go in the machine? How do you know? Pick a few more numbers and determine what happens when they enter the machine.

Create a rule about patterns.

North Carolina Department of
PUBLIC INSTRUCTION

AIG

ALL DAY, EVERY DAY

Interactions
Reference Guide

K-1 English/Language Arts:

Ideas for great picture books:

Where the Wild Things Are- written and illustrated by Maurice Sendak

Hair Love- written by Matthew A. Cherry illustrated by Vashti Harrison

Miss Rumphius written and illustrated by Barbara Cooney

A Big Mooncake for Little Star written and illustrated by Grace Lin

K-1 Logic Puzzle:

Odd plus an even = odd (silly)

Even plus an even = even (serious)

Odd plus an odd = even (serious)

10-12 English/Language Arts:

Additional information on loneliness: **https://www.healthline.com/health/how-to-deal-with-loneliness**

10-12 Logic Puzzle:

Solution: The first person must take either stool 9 or 17 (because of symmetry, it doesn't matter which). Assume they pick seat 9. The next person will pick seat 25, since it is the furthest from seat 9. The next two people will take Seats one and 17. The next three will occupy 5, 13, and 21. The next six will occupy 3, 7, 11, 15, 19, and 23. This seats the maximum of 13 people, and no one is sitting next to another person. If a seat other than 9 or 17 is chosen first, the total diner patrons will be less than 13.

https://www.braingle.com/brainteasers/teaser.php?op=2&id=5159&comm=0

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NC Standards Alignment

Grade Span	English/Language Arts	Social Studies	Science	Math
K-1	RL.K.7	1.G.2.1	K.P.2.1	NC.1.OA.4
10-12	W.11-12.2 I.SE.2	USH.H.6.1	BIO.1.1.1	NC.M4.SP.1.4