Week Four Literacy – Grade Four

Session One

- Read the Key Vocabulary (L.4.4)
- Read the passage Animal Fact, Animal Fiction (RF.4.4)
- Read aloud to practice fluency – aim for connected, smooth reading at a conversation rate
- Complete the vocabulary questions

Key Vocabulary		
ancient	adjective	*Ancient* means very old
staring	verb	*Staring* is to look at something for a long time
ranked	verb	To *rank* something is to put in order
ability	noun	*Ability* is the skill to do something
bury	verb	To *bury* is to put something underground
senses	verb	To be more aware of something is using your *senses*
tears	verb	*Tears* are made when you cry
moist	adjective	*Moist* means slightly wet
glands	noun	A *gland* is an organ in the body
produce	verb	To *produce* is to make
idiom	noun	An *idiom* is a phrase that cannot be understood by the meanings of each of its individual words, but has a meaning of its own

1. This word means very old.
   a. moist
   b. ancient
   c. ranked
   d. glands

2. Complete this sentence using a word from the key vocabulary list:

   The children were _____ at the stars in the sky.

3. What definition of **ranked** makes the most sense in the following sentence:
   The teams were **ranked** in order to see who would qualify for the championship game.
   a. Definition One: to use all of your energy
   b. Definition Two: to put in order
   c. Definition Three: to smell badly

4. Create your own complete sentence using the word **ability**.

Session Two

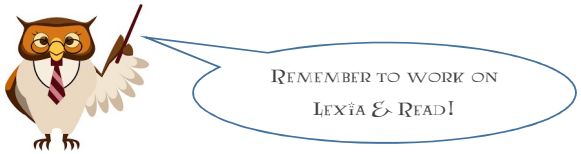
- Reread Animal Fact, Animal Fiction
- Answer the following questions:

1. How are the myths about crocodiles, ostriches, and owls connected?
   A. They are all animals from ancient times
   B. They all have feathers
   C. They are all described as having human features
   D. They are all connected to a Greek God or Goddess

2. _____is the Greek Goddess of Wisdom. She is often holding a(n) _____.

3. Does an ostrich bury its head in the sand? Use text evidence to support your answer. Write complete sentences.

4. Another common idiom is to be as "busy as a bee". What do you think this expression means and why? Can you come up with another example? Write several complete sentences and illustrate your example.



Session Three

1. The following are a list of common expressions that use animals to describe human characteristics:

at a snail's pace	get your duck's in a row
hungry as a bear	watching like a hawk
pig headed	busy as a bee
a wild goose chase	ants in your pants
mad as a hornet	wouldn't hurt a fly
butterflies in my stomach	hold your horses

2. Use the story map to develop and organize your ideas before writing.
3. Create a story that properly uses at least two of the expressions. Please write at least 5-7 complete sentences. Remember your story should have a beginning, a middle, and an end.
4. Create an illustration for your story.

The Setting: • Characters (describe them) • Time (when did it take place) • Setting (describe the location)	
The problem: • What problem will your character(s) face	
Events: • Plan out the events that lead to the problem	
Resolution (conclusion/ending): • What was the result for the characters after the main problem was resolved?	

Compose and illustrate your story here:

(title) _____

Grade 4 Week 4 Literacy Activities

ANIMAL FACT, ANIMAL FICTION

In folktales, owls are wise characters who give good advice. In Greek mythology, the **ancient** Greek goddess of wisdom, Athena, was often shown holding an owl. A person who understands many things is "as wise as an owl." And, in nature, owls' enormous, staring eyes and their accurate hunting skills make these birds seem like observant thinkers. But are real owls wise?

In fact, owls are not ranked among the most intelligent birds. To scientists who study learning, a smart animal is one that can solve a problem it has never seen before. Owls are not known for this **ability**, and people who train owls report that these birds are not quick to learn new tasks.

Someone who is not facing up to a problem may be compared to a different bird—an ostrich. The person is told, "Don't be an ostrich. Don't **bury** your head in the sand." Does an ostrich really bury its head in the sand?

In fact, ostriches never cover their heads with sand. They need to see danger to stay safe. These big, flightless birds have sharp eyesight. They are fast runners and strong fighters.

So, how did people come to believe that ostriches bury their heads? Ostriches lower their heads to move eggs in their nest on the ground. Seen from a distance, their heads appear buried by sand. An ostrich may also lie still with its long neck stretched out on the ground as a way of hiding when it senses danger.

Sometimes, a person who is only pretending to feel sadness is compared to a crocodile. "What crocodile tears!" others say about the false show of feeling. It was reported that crocodiles cried while eating animals they had just killed—as if they were sorry about the deed. Do crocodiles really cry tears?

In fact, crocodiles do cry tears. As the crocodile eats, bubbles form in the corners of its eyes and sometimes result in tears that drip down the animal's face. But these tears are not caused by strong feelings, like sadness about its poor victim. The tears are caused by the action of eating, and they work to keep the crocodile's eyes **moist**. The **glands** that **produce** tears are squeezed as the animal works its mighty jaws.

Owls aren't wise, ostriches don't ignore danger, and crocodiles don't show false sorrow. Some ideas about animals turn out to be more **FICTION** than **FACT**.

LESSON 8•5

Math Boxes

1. Write three equivalent fractions for each fraction.

a. $\frac{1}{2}$ _____, _____, _____

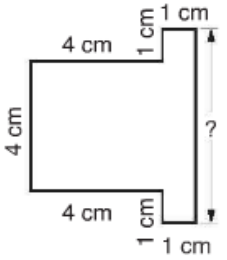
b. $\frac{3}{4}$ _____, _____, _____

c. $\frac{2}{3}$ _____, _____, _____

d. $\frac{5}{6}$ _____, _____, _____

SRB 49–51

2. Find the perimeter of this polygon.



Number model:

_____

_____

Perimeter = _____ cm

3. Complete the "What's My Rule?" table, and state the rule.

Rule: _____

in	out
3.66	7.02
0.44	3.80
8.73	
	12.66

SRB 162–166

4. If you throw a die 60 times, about how many times would you expect  to come up?

_____ times

SRB 81

5. Complete.

a. _____ is half as much as 44.

b. 90 is twice as much as _____.

c. _____ is 3 times as much as 40.

d. 20 is $\frac{1}{5}$ of _____.

e. _____ is 5 times as much as 34.

6. Divide with a paper-and-pencil algorithm.

5,682 / 4 = _____

SRB 22 23 179

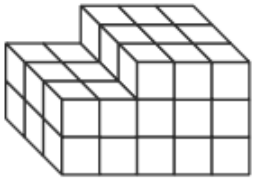
STUDY LINK 11•5

Volume

SRB 137 138

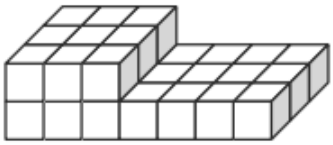
1. Find the volume of each stack of centimeter cubes.

a.



Volume = _____ cm^3

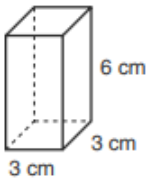
b.



Volume = _____ cm^3

2. Calculate the volume of each rectangular prism.

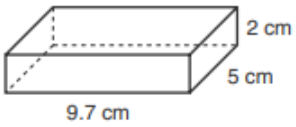
a.



Number model: _____

Volume = _____ cm^3

b.

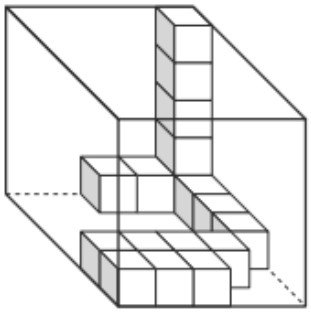


Number model: _____

Volume = _____ cm^3

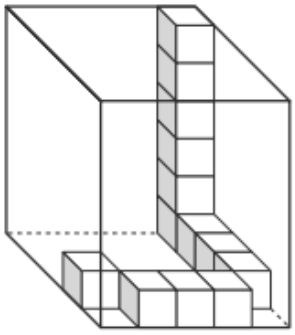
3. What is the total number of cubes needed to completely fill each box?

a.



_____ cubes

b.



_____ cubes

Practice

4. −65 + 16 = _____

5. _____ = −21 + (−19)

6. _____ = 84 + (−55)

7. −16 + 89 = _____

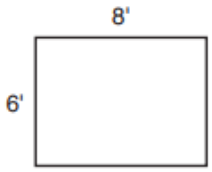
STUDY LINK 8•5

Areas of Rectangles

SRB 134

Find the area of each rectangle.

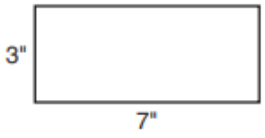
1.



Number model: _____

Area = _____ square feet

2.



Number model: _____

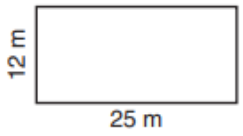
Area = _____ square inches

3.

Number model: _____

Area = _____ square centimeters

4.



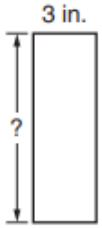
Number model: _____

Area = _____ square meters

Try This

The area of each rectangle is given. Find the missing length.

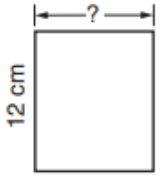
5.



Area = 27 in^2

height = _____ in.

6.



Area = 120 cm^2

base = _____ cm

Practice

7. 3, 6, _____, 12, _____, _____, _____

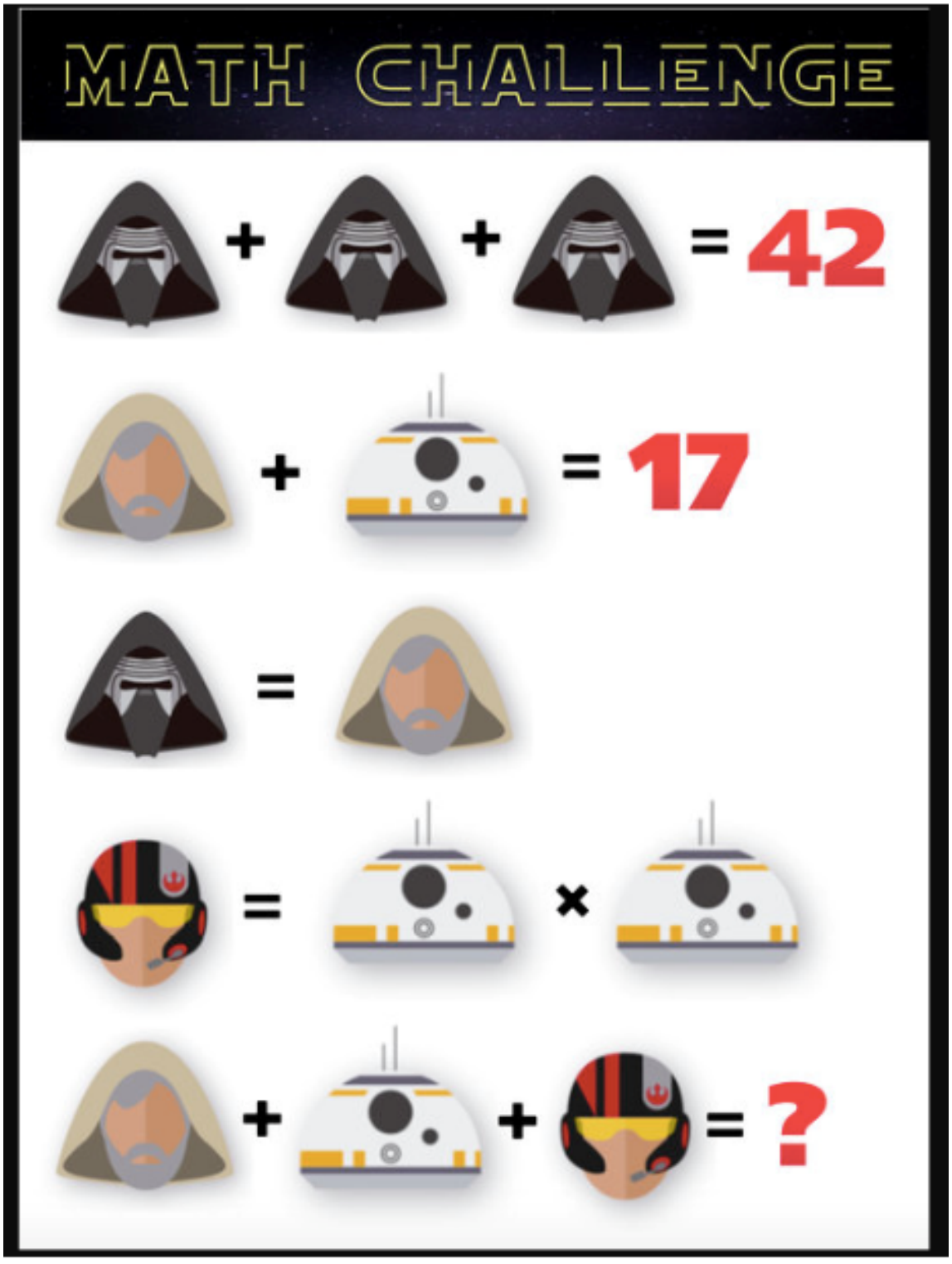
8. 14, 21, _____, _____, 42, _____, _____

9. 30, _____, 42, 48, _____, _____, _____

10. 12, _____, 36, _____, 60, _____, _____

Use your math skills to find the value of each icon.

Hint: Start with Kylo.



Insulators and Conductors

A CONDUCTOR is a material that allows electricity to pass through it.

An INSULATOR is a material that doesn't allow electricity to pass through it.

Identify which object is an insulator or a conductor by sorting them into the correct boxes below

Pencil | Plastic Ruler | Water | Paperclip | Plastic spoon | Steel Nail

Metal spoon | Piece of paper | Key | Cardboard | Aluminum foil

Checkers piece | Piece of String | A Quarter | Piece of wood

What kind of materials will conduct electricity?

_____

_____

_____

_____

What kind of materials will not conduct electricity?

_____

_____

_____

_____

Why are insulators important?

_____

_____

_____

_____

_____

What causes lightning and thunder?

By NASA.gov on 04.16.20
Word Count **642**
Level **MAX**

TOP: Lightning strikes near a rainbow over Lake Mead National Recreation Area July 1, 2015 in Lake Mead, Nevada. The storm brought very little rain to the lake, which was at a historic low. BOTTOM: Ice crystals and water droplets bump together and move apart to create a cloud with two charges. NASA.

Zap! You just touched a metal doorknob after shuffling your rubber-soled feet across the carpet. Yipes! You've been struck by lightning! Well, not really, but it's the same idea.

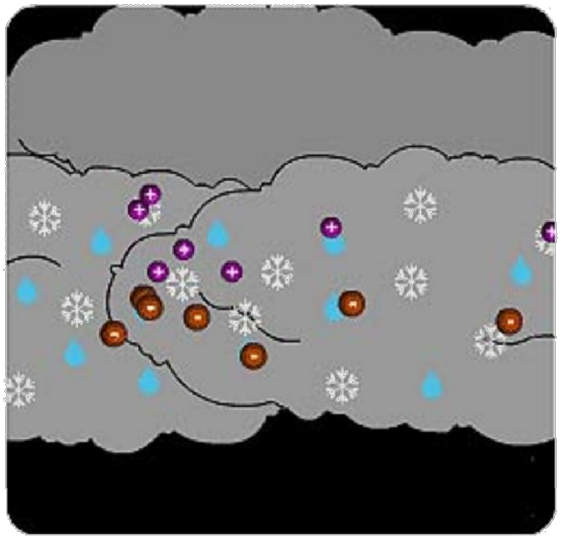
Your rubber-soled shoes picked up stray electrons from the carpet. Those electrons built up on your shoes, giving them a static charge. (Static means not moving.) Static charges are always "looking" for the first opportunity to "escape," or discharge. Your contact with a metal doorknob — or car handle or anything that conducts electricity — presents that opportunity, and the excess electrons jump at the chance.

What Causes Lightning?

So, do thunderclouds have rubber shoes? Not exactly, but there is a lot of shuffling going on inside the cloud.

Lightning begins as static charges in a rain cloud. Winds inside the cloud are very turbulent. Water droplets in the bottom part of the cloud are caught in the updrafts and lifted to great heights where

the much colder atmosphere freezes them. Meanwhile, downdrafts in the cloud push ice and hail down from the top of the cloud. Where the ice going down meets the water coming up, electrons are stripped off.



It's a little more complicated than that, but what results is a cloud with a negatively charged bottom and a positively charged top. These electrical fields become incredibly strong, with the atmosphere acting as an insulator between them in the cloud.

When the strength of the charge overpowers the insulating properties of the atmosphere, Z-Z-Z-ZAP! Lightning happens.

How Does The Lightning "Know" Where To Discharge — Or Strike?

The electric field "looks" for a doorknob. Sort of. It looks for the closest and easiest path to release its charge. Often lightning occurs between clouds or inside a cloud.

But the lightning we usually care about most is the lightning that goes from clouds to ground — because that's us!

As the storm moves over the ground, the strong negative charge in the cloud attracts positive charges in the ground. These positive charges move up into the tallest objects like trees, telephone poles and houses. A "stepped leader" of negative charge descends from the cloud, seeking out a path toward the ground. Although this phase of a lightning strike is too rapid for human eyes, it's possible to see it in a slow-motion video.

As the negative charge gets close to the ground, a positive charge, called a streamer, reaches up to meet the negative charge. The channels connect, and we see the lightning stroke. We might see several strokes using the same path, giving the lightning bolt a flickering appearance, before the electrical discharge is complete.

What Causes Thunder?

In a fraction of a second, lightning heats the air around it to incredible temperatures — as hot as 54,000 degrees Fahrenheit. That's five times hotter than the surface of the Sun!

The heated air expands explosively, creating a shockwave as the surrounding air is rapidly compressed. The air then contracts rapidly as it cools. This creates an initial CRACK sound, followed by rumbles as the column of air continues to vibrate.

If we are watching the sky, we see the lightning before we hear the thunder. That is because light travels much faster than sound waves. We can estimate the distance of the lightning by counting how many seconds it takes until we hear the thunder. It takes approximately five seconds for the sound to travel one mile. If the thunder follows the lightning almost instantly, you know the lightning is too close for comfort!

What Does Lightning Look Like From Space

Lightning is an important part of weather forecasting. The new GOES-R Geostationary Lightning Mapper instrument will detect lightning activity over nearly the whole Western Hemisphere. This complete picture of lightning at any given time will improve "now-casting" of dangerous thunderstorms, tornadoes, hail and flash floods.

Organism Structure/Function Matching

1. Webbed feet 
2. Long neck 
3. Big ears 
4. Tail 
5. Spotted skin/fur 
6. Sharp teeth 
7. Claws 
8. Unhinged jaw 
9. Gills 

A. Helps with balance

B. Helps camouflage (or hide) the animal

C. Swim faster

D. Helps swallow large prey

E. Helps to breath underwater

F. Reach more food in the trees

G. Helps to attack and eat prey

H. Helps to grip and climb, as well as attack prey

I. Hear more clearly and farther away

Please keep these instructions. This project will be worked on for the next few weeks.

State Float Instructions

One of our final Social Studies projects of the year is the state float. A state float is a moving piece of art that contains information and facts about one of our country's fifty states.

The float can be made out of anything, but we recommend a shoe box if you have one available. If you don't have a shoebox, you can use other sturdy materials as the base.

Below is a list of items that can be included on your state float. These items may be 2- dimensional and drawn, photographed, or printed from a computer. They may also be 3-dimensional objects that are hand-made by the student, such as a clay pineapple for Hawaii or poppies made of yellow and orange tissue paper for California; manufactured such as a plastic orange for Florida; or real such as a potato for Idaho.

The float can include the following items:

1. Name of State
2. State Flag
3. State Nickname
4. State Flower
5. State Tree
6. State Bird
7. State Animal 8. State Symbol
9. State economy (how does your state make money?)
10. A map of the state
11. Something the state is famous for (Florida oranges, Wisconsin cheese, etc.)

Please label each item on your float!

This project is voluntary, and meant to be a fun way to share your knowledge about your state!

Be creative and have some fun!