LOWER ELEMENTARY WEEK FOUR: APRIL 20-24, 2020

Dear Lower Elementary Community,

Welcome to the 4th Week of Distance Learning. We miss you dearly and have you in mind as we continue being of service from a physical distance. May these ideas spark an interest and be starting points to quality time spent thinking, creating, and discussing. We hope you're happy and healthy, and in connection with each other.

Onward!

Ms. Pasco, Dr. Feeley, Mr. Weathers, and Ms. Shirley

Language

1. **Hyperbole** is a literary device used to exaggerate.
    a. Examples:
        i. Ms. Pasco is so hungry she could eat an entire whale! (This is an example of figurative language. This hyperbole creates the meaning that Ms. Pasco is incredibly hungry.)
        ii. Hermione Granger has read every book in the world. (This hyperbole creates the meaning that she is rather well read.)
        iii. The character in the story cried buckets and buckets of tears. (This creates the meaning of a strong expression of deep sadness.)
    b. Using hyperbole, write your own sentences.
    c. As you read books, or listen to movies, even in conversations, see if you can listen for them.

2. **Antonyms** are words that mean the opposite.
    a. Examples:
        i. hot -- cold
        ii. bright -- dim
        iii. small -- big
    b. Think of the antonyms for the following words:
        i. Thin --
        ii. Huge --
        iii. Quick --
        iv. Strange --
        v. Flavorful --
        vi. Mean --
        vii. Loud --

viii. Day --
ix. Modern --
x. Tame --
xi. Beautiful --
xii. Messy --
xiii. Necessary --
xiv. Cry --
xv. Lose --
xvi. Empty --
xvii. Unfunny --
xviii. Finished --
xix. Irresponsible --
xx. Up

c. Start an antonyms collection. May these 40 words be the start to your collection.

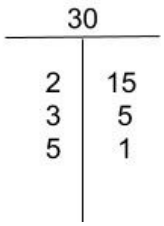
3. Choose a list for this week from the *Instructional Spelling Program* by Andrea Rolfe or choose list d from *The Reading Teacher's Big Book of Lists (Intermediate Spelling Demons)* by Kress and Fry. Practice spelling your list out loud with a parent or sibling. Make up sentences for each word and write them down. You can take a quiz on Friday.
    a. No, go so, home, nose, hope, joke, close, rope, bone
    b. Hillside, gallop, spell, shell, penny, sunny, worry, sorry, bless, grass.
    c. Everywhere, livestock, cheerleaders, bumblebee, greenhouse, bloodhound, eardrum, earthworm, alarm clock, seat belt.
    d. Meatball, grandmother, grandfather, sunshine, rainbow, anything, sometimes, someone, popcorn, nobody.
    e. Absolutely, bargain, calendar, debt, eighth, fascinate, gauge, happened, imaginary, judgement.

4. Have a *Dictionary Word Find* race with someone at home, a sibling, friend online, or by timing yourself. Choose a word from your spelling list and see how fast you or someone else can find it in a collegiate dictionary.

Mathematics

1. Time yourself as you complete mixed addition and subtraction problems using the worksheets below, or make up twenty problems: ten addition and ten subtraction. Make them all dynamic (with carrying). Does your time improve as you practice? Try to do the alternate practice with increasingly larger numbers.
    a. Single-digit addition and subtraction (See pdf attachment)
    b. Double-digit addition and subtraction (See pdf attachment)
    c. Triple-digit addition and subtraction (See pdf attachment)

2. Consider prime factors of numbers. Use the "T" format that you were shown on the pegboard and find the prime factors. Write out the final algorithm with all the prime factors and the product. Find the prime factors for ten numbers. For example: 2 x 3 x 5 = 30



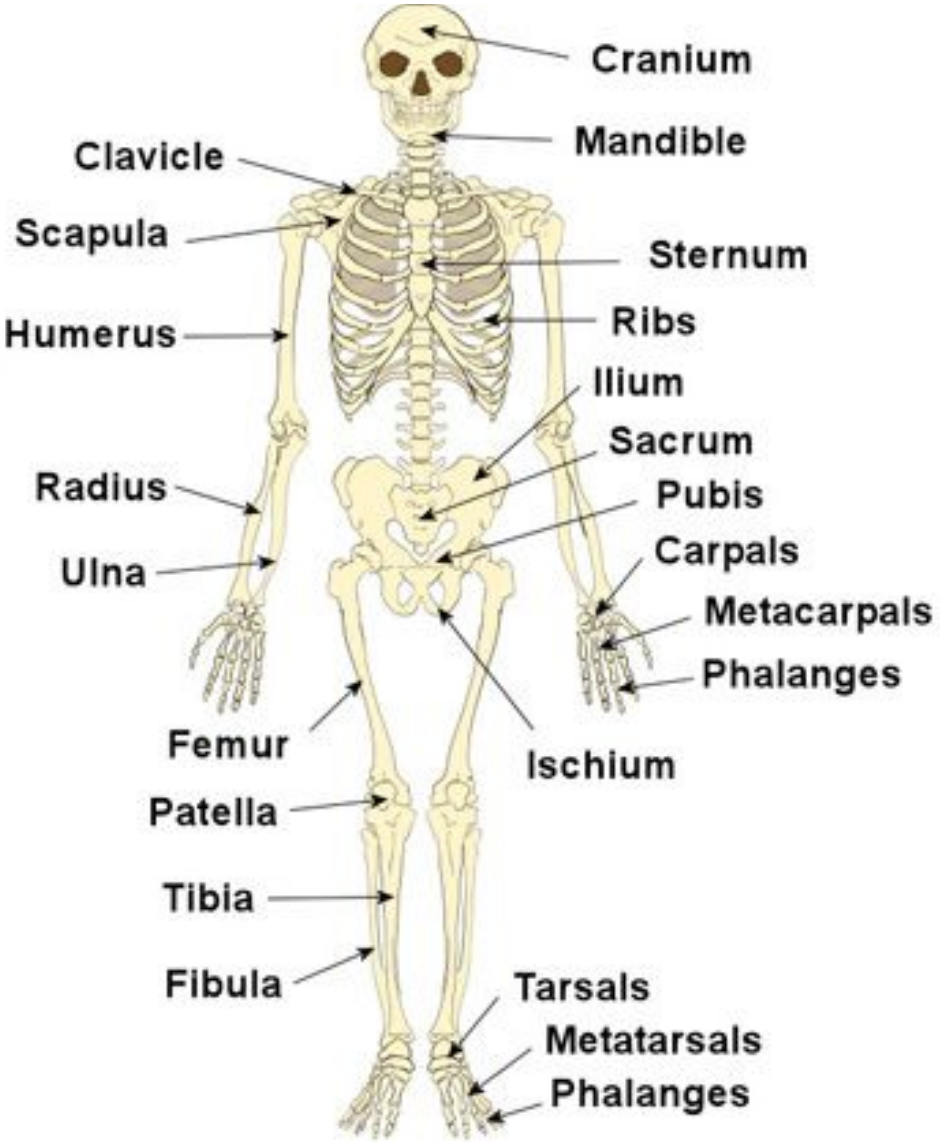
3. Practice the **distributive law of multiplication**.
    a. Examples:
        i. a (b + c) = (a x b) + (a x c)
        ii. 4 (8 + 3) = (4 x 8) + (4 x 3) = (32) + (12) = 44
    b. Complete the following:
        i. 3 (4 + 5) =
        ii. 6 (3 + 6) =
        iii. 8 (5 + 4) =
        iv. 2 (7 + 1) =
        v. 4 (3 + 3) =
        vi. (2 + 3) (3 + 2) =
        vii. (3 + 5) (6 + 2) =
        viii. (4 + 2) (9 + 0) =
        ix. (3 + 6) (2 + 3) =
        x. (5 + 5) (5 + 5) =
    c. Create your own sets of numbers until you're comfortable. If you can, then move on to structures such as these: (2 + 3 + 4 + 5 + 6) (7 + 3 + 2 + 5 + 4)

4. Review range, mean, mode, and median. Use the following number sets:
    a. 3, 8, 10, 12, 15, 15, 19
    b. 6, 9, 9, 9, 10, 11, 20
    c. 10, 30, 30, 40, 90
    d. 20, 25, 35, 80, 85,
    e. 6, 7, 7, 7, 7, 10, 16

Biology

1. List the 11 bodily systems and write/discuss a few sentences about each system. Take your time with this one and be patient. If you were to focus on two a day, that would make this activity quite manageable. You will most likely need a non-fiction resource. Discuss how each of the body systems work independently and how they work interdependently.

2. Go deeper into a study that focuses on the skeletal system, the bones of the body. Practice identifying the names using your own body. (Point to your head and identify the cranium. Point to your chin and identify the mandible.) Maybe use notecards and stick them on someone if you have their permission; you could place the notecard that says “patella” on their knee bone, for example. This is Shelly, the skeleton:



3. Consider the classification of an animal. Use the classification categories you saw in Kingdom Animalia to place an animal in the proper Phylum, Class, Order, Family, Genus and Species. For example: check out the classification of the **Arctic Fox** (listed below). Use this web site to find the classifications for the animal of your choice. Animal Classification - Reference
    a. Kingdom: *Animalia*
    b. Phylum: *Chordata*
    c. Class: *Mammalia*
    d. Order: *Carnivora*
    e. Family: *Canidae*
    f. Genus: *Vulpes*
    g. Species: *Alopex Lagopus*

4. Choose another seemingly similar animal. Compare their classifications.
    a.

	Arctic Fox	Timber Wolf
i.	Kingdom: Animalia	Animalia
ii.	Phylum: Chordata	Chordata
iii.	Class: Mammalia	Mammalia
iv.	Order: Carnivora	Carnivora
v.	Family: Canidae	Canidae
vi.	Genus: Vulpes	Vulpes
vii.	Species: Alopex Lagopus	Lycaon

5. Investigate the characteristics of the various subcategories. Use this website: Animal Classification - Reference

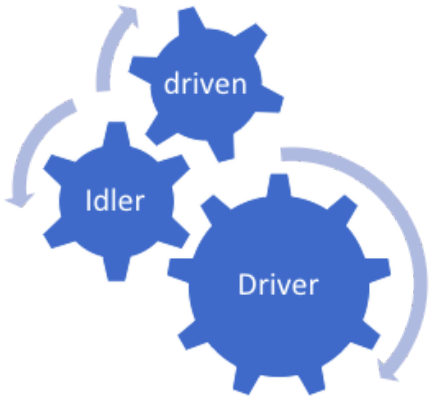
Geography

1. Let's focus on the **Arctic**. It is a region that surrounds the North Pole. It is mostly sea. It is frozen for much of the year. It also includes Greenland and the northernmost parts of North America, Europe, and Asia. Consider this: that area is about twice the size of the United States. Land animals there have thick fur or fluffy feathers. Sea animals have a thick layer of fat. Investigate and find out what animals live in the Arctic. Also, think of which people live there. (Research the Nenets. They herd reindeer!)

2. Transport yourself to the Arctic. Read and find out more about the area. Write what you learned. Share it with a friend. Add a picture or an illustration.

3. Imagine what it is like to live in the desert. Write a letter pretending to live there among the different types: subtropical, semiarid, coastal, and polar. Your audience is someone who has never been to the desert. Describe your experience. What is the weather like? What creatures can you find there? Remember: in this letter, you are the expert. Here is a 4-minute video for inspiration.

4. Rivers carve and deposit sediment, which helps to shape the world. How do rivers form canyons? Read this page to learn more. What are the largest canyons and how big are they? How long and how deep?



5. Looking at these three gears, answer the following questions:
    a. Which gear will move faster, the Driver gear or the driven gear?
    b. What effect does the idler gear have on the movement of the driven gear?
    c. What is the speed ratio between the Driver and the driven gears?

6. If you have Lego gears at home, set up more two and three gear models. Note how using different gear drivers affect the driven gear. Write down the ratios by counting the teeth for each gear.

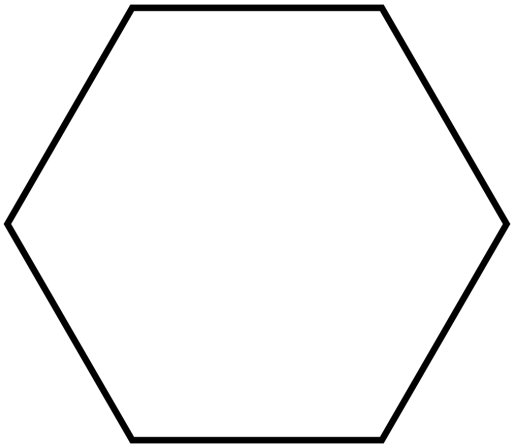
Geometry

1. There is more than one way of thinking about the Pythagorean Theorem. Watch this video, which tells us about how the Pythagorean Theorem was applied in Ancient Egypt. Choose an idea from the video and create your own explorations at home. You might also want to use graph paper as a tool for exploration to do the following:
    a. Draw a right-angled triangle.
    b. Using the legs of the triangle, draw squares.
    c. Using the hypotenuse of the triangle, draw a square.
    d. Measure the value of a, b, and c. (leg, leg, hypotenuse)
    e. If you'd like-- take it further by squaring the values and plugging them into the equation:

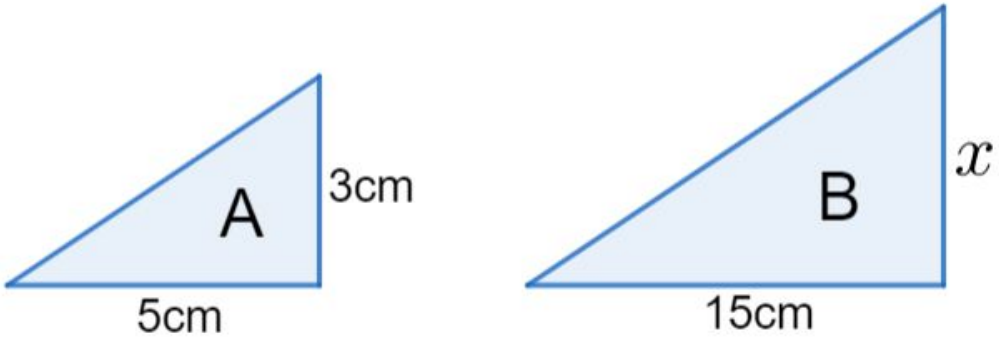
$$a^2 + b^2 = c^2$$

2. Take some time to watch this 4-minute video of why honeybees love hexagons. It's incredible seeing places where geometry and biology meet!

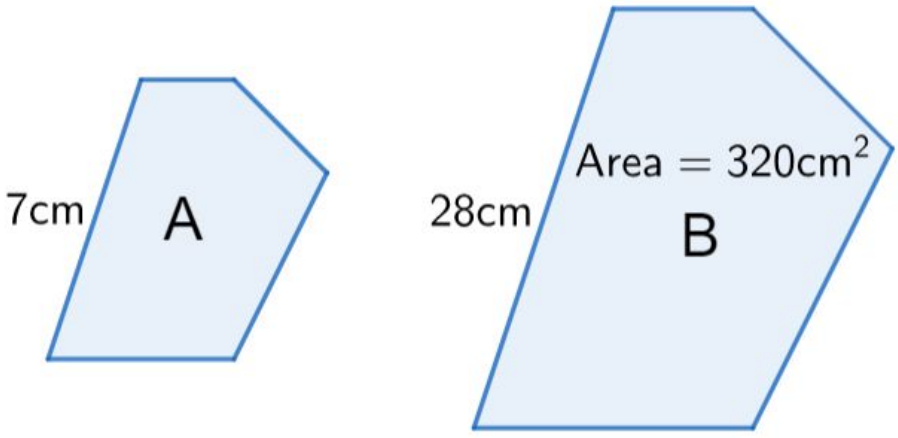
3. Consider the humble hexagon. Identify the following parts: perimeter, diagonals, vertices, sides, angles, apothem, radius, and area.



4. Here are two similar triangles. If the ratio relationship between the two triangles is 1:3, then what is the length of side x?



5. What is the ratio relationship between these two similar shapes?



History

1. Besides the fundamental needs that we can physically see, such as clothing, nourishment, shelter, defense, hygiene, and transportation, human beings also need creative expression, inner reflection, and mental stimulation. Culture, arts, music, and spirituality are some examples. Let's focus particularly on music. Musical instruments are categorized into the following: string, brass, woodwind, and percussion.
    a. Watch this video for a general introduction.
    b. Make a list of at least 5 instruments for each instrument family.

2. Throughout space and time, since the earliest human beings, people have thought of different names and myths for the sun. In Greek mythology, there was Helios. In Roman mythology, there was Sol. In Egyptian mythology, there was Ra.
    a. Find out at least two more names and myths about the Sun from various cultures.

3. In Ancient Greece, clothing had great significance even though it was quite simple. What were the basic pieces of clothing that Ancient Greeks of the Classical Age wore? Look at this web page. Make your own labeled diagrams of the types of Greek clothing.

4. Where did families get their clothing in Ancient Greece? Read this webpage to learn about clothing making in Ancient Greece.