COVER LETTER
Dear Lower Elementary Community,

We hope you have been enjoying the snow and sun this past week. It is precious! So much has been happening in our world, let us take a moment and soak it in or release it (whichever you may need).

Humans have been evolving in many ways. As we enter February, and Black History month, let us take a moment to realize what this means. The universe is giving us more light, as we honor those who gave us so much during our history. Take time to drink in all the sun we can, along with learning about the great people who got us here.

Working together,

Megan, Rebekah, Deb, Arden, and Lisa
Lower Elementary Guides

Math and Geometry

- **Daily Math Practice** - Khan Academy: Please use our class code so that we are able to monitor your progress and practice.

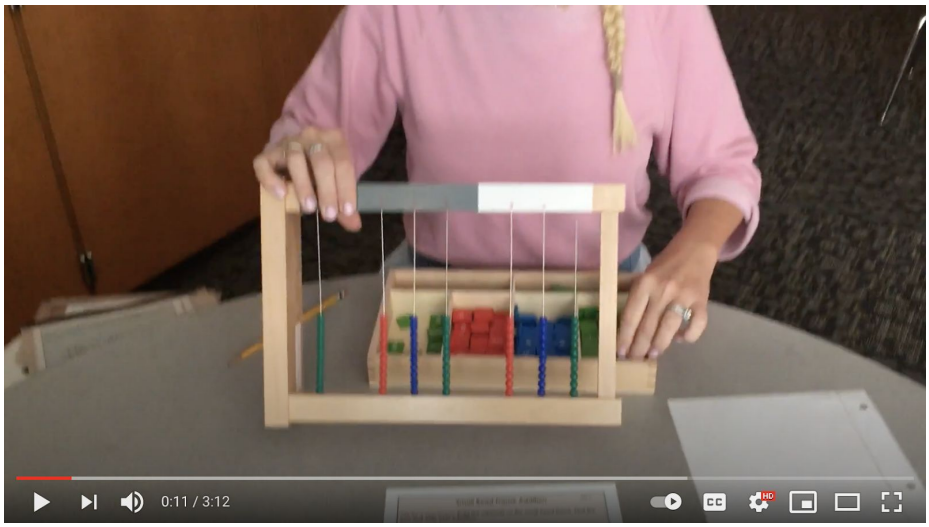
- **Math Facts** - Memorizing foundational math facts is a process requiring repetition, consistency, and application to the real world. Whenever your child works with numbers, in any sense, it adds another layer of experience and opportunity for recall. In everyday actions and experiences, point out the numbers that are involved and practice linking them.
    - Setting the table
        - "We are normally 5 people for dinner but Sara won't be here tonight. How many places should we set?"
        - "Tonight we need regular spoons and also soup spoons on the table. Wow, that's a lot of spoons! How many spoons will be on the table?"
        - "There are six chairs around the table but we will only be 4 people tonight. How many chairs should we take away?"
        - "Instead of one big bowl of olives to pass around, let's put little bowls of olives that can be shared by two people. We will have eight people here. How many olive bowls should we set out?" Make the bowls pretty too!..."How many leaves should we place in each bowl for decoration? How many leaves total?

Of course, all of this is done with action. It is not standing around in the kitchen calculating. It is showing the items, setting them out, noticing, and discussing, while in ACTION! Linking the hand, body, and mind is a

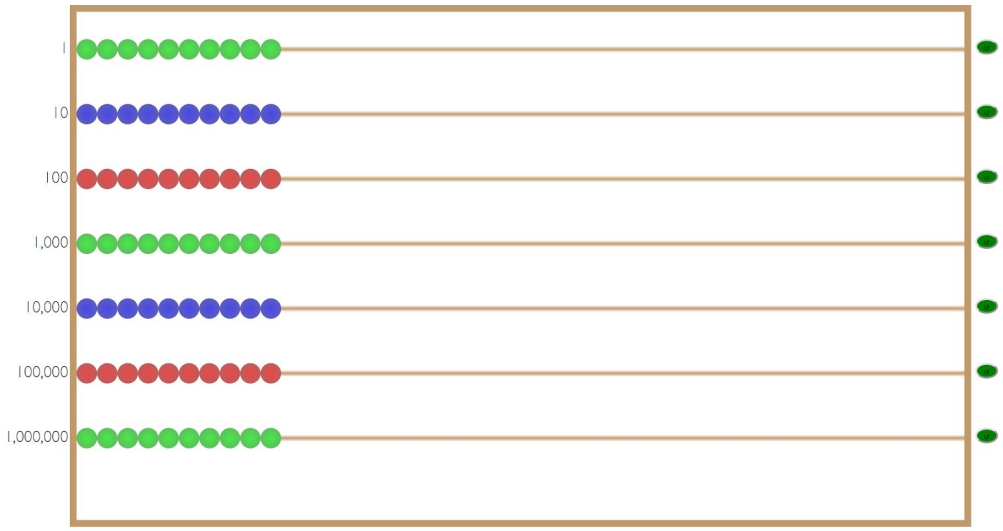
powerful tool for recall and memorization. Make a memory in order to memorize!

- Walking the neighborhood
    - American flags - Count the American flags you see on one block of your street. Count the American flags you see on the next block of your walk. “We saw 3 flags on our street and 5 flags on this street. How many flags have we seen?” “Wow, 8 flags! Shall we count the next street?”
    - Read the address numbers on the houses. Notice the patterns: Odds on one side, evens on the other? These numbers go up by 2; what should be the next number? Let’s read these large numbers into the thousands.
    - Sidewalk squares (if you can see them beneath the snow!) - Have your child run ahead 10 squares, counting the whole way. “You need to keep 10 squares between us.” “Close your eyes.” You then walk ahead two squares. “I am now 8 squares away. How many squares do you need to back up?” Child may need to recount all of the squares, or he/she may notice that it is 2 squares. Keep playing with different combinations. Change who is the one to close their eyes and to adjust the distance.

- **Dynamic Addition:** Below is a digital version of the Large Bead Frame, which we use in the elementary classroom for teaching many operations, including long (or dynamic) addition. The first link shows a demonstration on how to use the Large Bead Frame apparatus. If it is the first time your child, or you, is using this material, or Montessori materials in general, do not be disheartened if it is a bit confusing. The video assumes that one has a general familiarity. If there is any confusion, then do not use this exercise. However, if your child has been in Montesssori then the colors and concepts will be familiar and the video will help bring the apparatus to life.
  Learn how to do a long (dynamic) addition using the Large Bead Frame here.



Here is a link to a digital large bead frame which you can use for you at home learning. Large Bead Frame

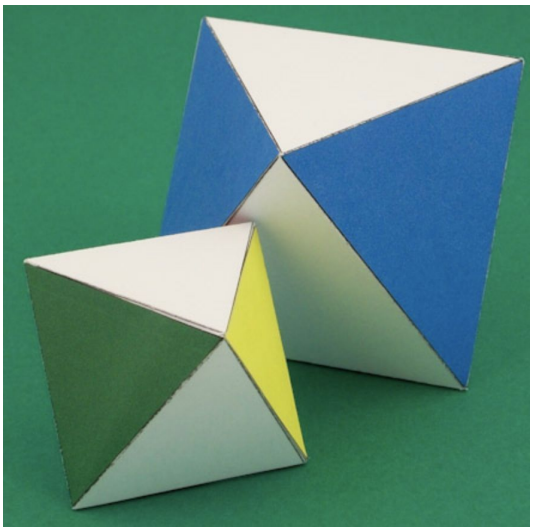


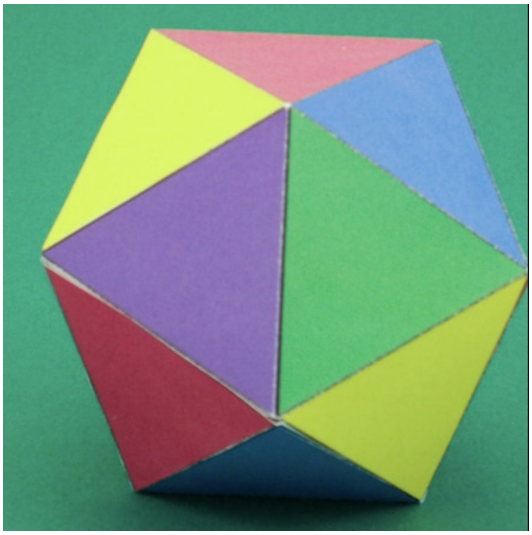
- **Geometry - Polygons according to number of sides**
  The last unit we defined what is and what is not a polygon. Now we are going to learn the names of polygons according to the number of sides they have. This is a listing of the names of polygons from three to twenty sides (and beyond...that's an n-gon!).

  You can use a pencil and ruler to draw polygons and label the drawing according to how many sides it has. Put your collection of polygons into a book (each polygon has its own page), or onto a poster, or into an accordion book where each sheet is taped together and then folded back and forth to make an accordion book.

Name of the Polygons	Sides
Triangle (also called Trigon)	3
Quadrilateral (also called Tetragon)	4
Pentagon	5
Hexagon	6
Heptagon	7
Octagon	8
Nonagon (also called Enneagon)	9
Decagon	10
Hendecagon	11
Dodecagon	12
Tridecagon or triskaidecagon	13
Tetradecagon or tetrakaidecago	14
Pendedecagon	15
Hexdecagon	16
Heptdecagon	17
Octdecagon	18
Enneadecagon	19
Icosagon	20
n-gon	n

- Use the triangle polygon to make geometric solids. Look at these examples and examine how they are made. How many triangles are needed? How can you attach these together to make a solid figure?

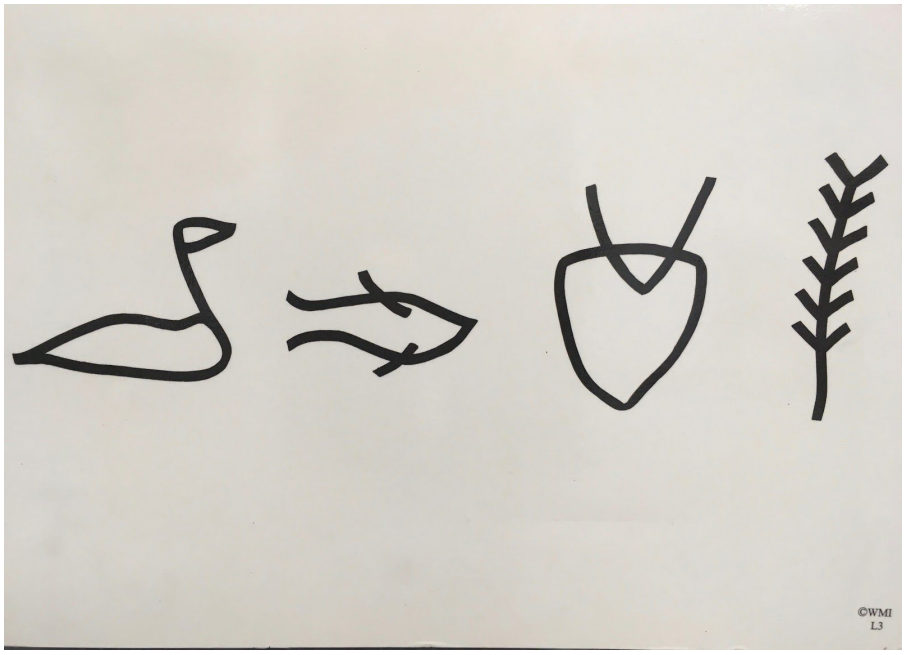




Science and Culture

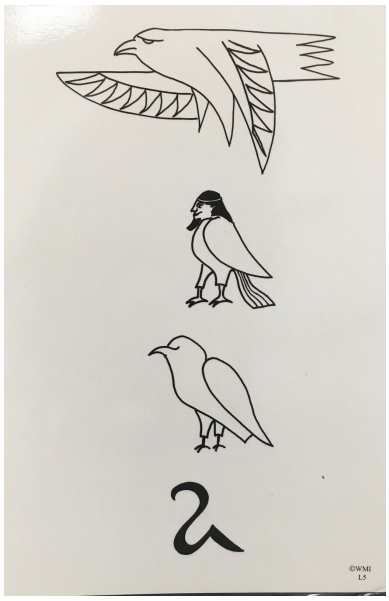
- **Story of our Alphabet** -
  It's fun to look at and read about the different types of symbols that humans have used throughout history to help communicate. Here are some drawings and some descriptions of different symbols and alphabets from other cultures and eras.

  Below, early humans first used simple drawings to represent important things in their environment. We found these styles of drawings on rocks from early humans. We can only guess what these symbolized. What do you think each of these symbols means?
  A symbol that represents a thing is called an **ideograph**.

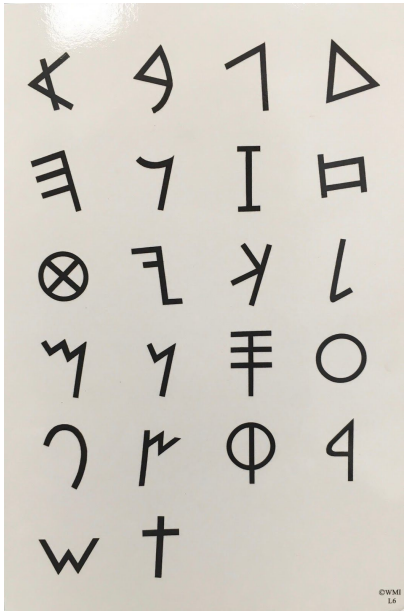


Below are some figures created by the Ancient Egyptians. The top figure represents an eagle. This is a pictograph. The second drawing is an eagle body with a man's face. This represents the soul. A drawing that represents an idea is called an ideograph. These drawings were done on stone buildings and statues.
The Egyptians later used a kind of paper, called papyrus, to make their drawing using a kind of pen. Now that they used paper and pen, they could write more quickly. The third drawing is a quick drawing of an eagle. This was easier and faster for them to write. The

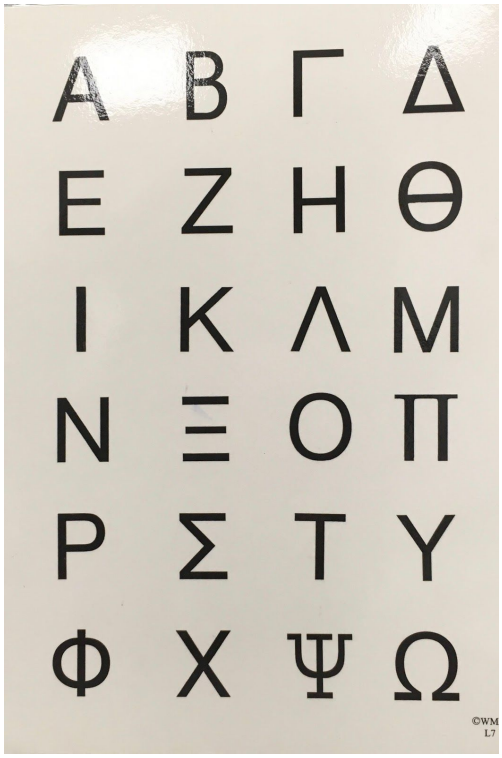
fourth drawing is the same shape of the eagle above and represents the sound ‘a’ in the Egyptian language.



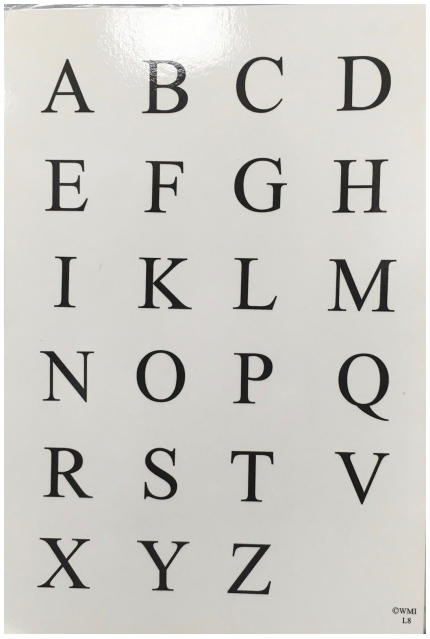
The first people to draw symbols to represent a sound in their language was the Phoenicians. They lived about 5,000 years ago in northern Africa along the Mediterranean Sea and were important traders. They had a need to record their business dealings. They invented the first alphabet. Below is their alphabet. Do you recognize some of the symbols that look similar to the alphabet we use today?



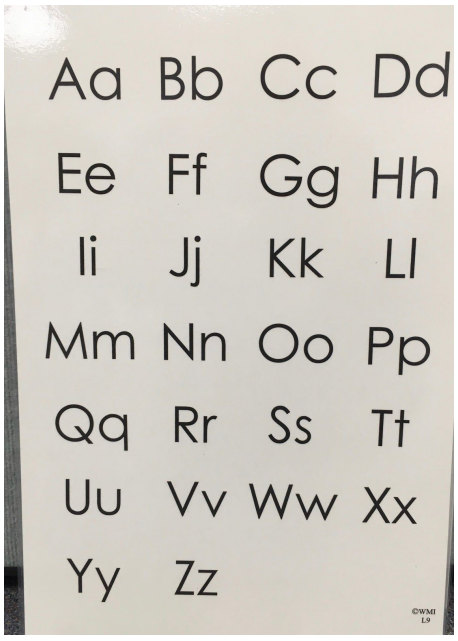
About 3,000 years ago the Ancient Greeks made their own alphabet. You can see it below. Does it seem these letters are more familiar? This is the same alphabet that Greeks use today. Each of these letters has a name. The first three letter names are alpha, beta, gamma. Can you find the names of the rest of the letters, through research? It's fun to learn the entire Greek alphabet. Can you guess where we got the name 'alphabet' from?



A bit later, after the Greeks, the Romans created a different alphabet. It looks really similar to the one we use today, but there are some differences.



Can you find the differences between the Roman alphabet above and the one we use today, below?



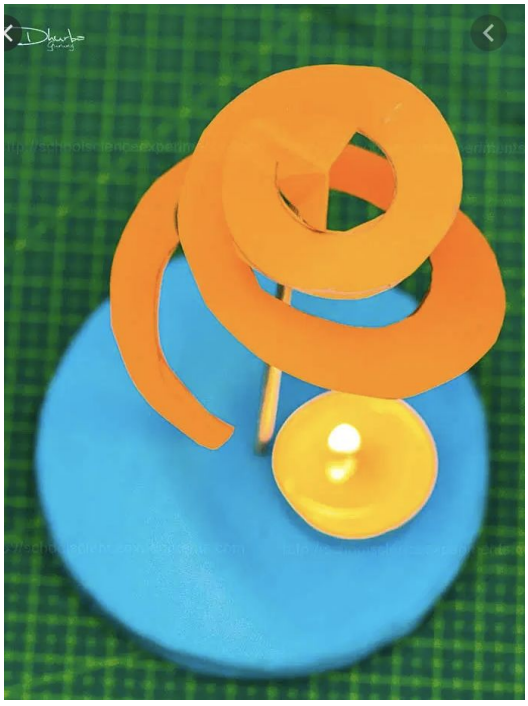
<u>Follow up work</u>

Besides answering the questions you find in the ‘Story of the Alphabet’ above, here are some other ideas of extended work you can do on this topic.

- Using the pictures as a reference, recreate the different styles of symbols and alphabets to create your own book of, “The Story of our Alphabet”. Write some facts for each drawing.
- Do research on what other alphabets have existed in history. Can you find similar symbols to our own alphabet in these historical alphabets?
- Do research on other alphabets that exist today? What alphabet is used for the Russian language? Mandarin? Arabic? Hebrew? Thai? Make charts showing the symbols and find symbols that are similar to the ones we use for English.

- **Convection Experiment**
  In class we are learning about the work of air. Check out this video where you can learn an experiment that proves the theory that warm air rises.

  In a notebook write down the steps and materials of the experiment. Pretend that you are leaving a message to someone whom you will never meet and explaining how to do this really cool experiment. What information will be important for this person to successfully complete this experiment?



- **Black History month -** February is Black History Month. For these first two weeks of the month, choose a Black person in history that you find interesting and would like to learn more about. Share the information you learn by:
- Writing their story.
- Drawing a picture of this person.
- Finding or making music or poetry about this person or their accomplishments.
- Writing a newspaper article.
- Writing a skit or play about this person.

  Share your work with someone so they can learn what you have learned.

- **Encyclopedia Britannica**- This is an amazing resource for science and culture for inspiration on research projects. Leelanau Montessori has a subscription for you to enjoy! Login with the following:

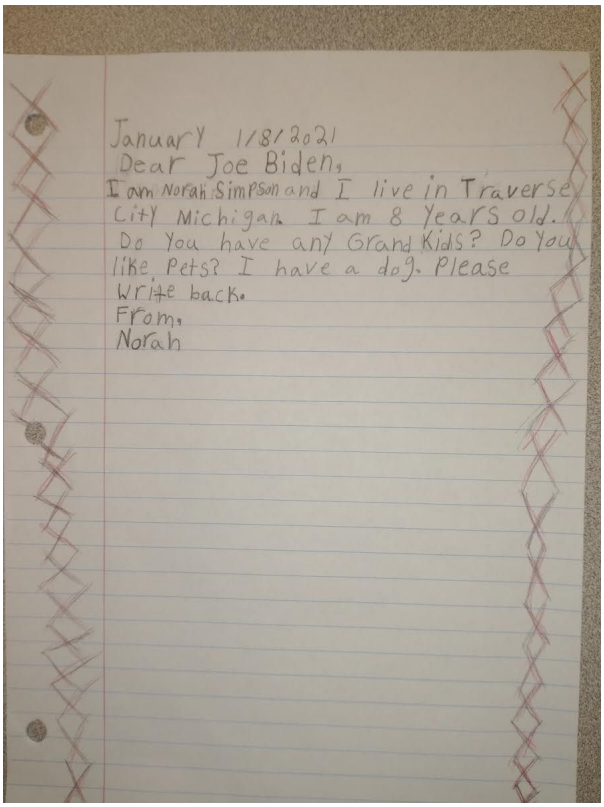
  User ID: leelanau

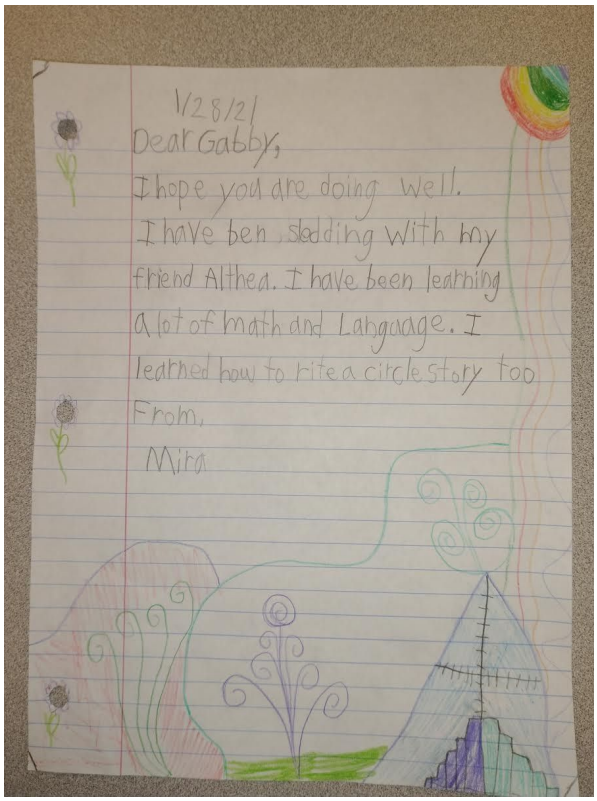
  PW: school
- Science | Britannica LaunchPacks
- https://packs.eb.com/science

Language Arts

- **Letter Writing** - Have you tried your hand at letter writing yet? See the previous weeks for the format of how to write a letter. Here are a couple of examples of our in-person learners letters. One is even to our new president Joe Biden! If you would like to write a letter to anyone in the White House, here is the address:

  1600 Pennsylvania Avenue NW
  Washington, DC 20500.





- **Adjectives and Adverbs** - In the past weeks we have done quite a bit of work with nouns and verbs. Now let's try to take our writing to the next level by describing them using adjectives and adverbs.

  The adjective tells us something about the noun. It describes the noun and gives us more information. For example, the tan dog tells us the color of the dog. Another example is, the thirsty lizard. We now know something more about the lizard. For our classroom materials the adjective shares the same shape as the noun--a triangle. The adjective triangle is medium-sized and dark blue. It

suggests that they are more important than articles, but still not as important as nouns.

The adverb: The adverb describes the verb. For example, I run quickly. The word quickly is an adverb. It describes the verb, run. The adverb, quickly, describes the speed I am running.
Adverbs, “to add to the verb” have the same shape as the verb, a small round circle to show their dependence on the verb. They are orange in color because orange isn’t as hot as red. Its flame is smaller and less intense. The adverb gets its energy by reflecting the verb’s red glow. The small orange ball is the symbol for adverbs, words that describe actions (verbs).

- **Poetry** - Now let’s try using these new parts of speech with poetry writing! Here is a form of poetry written in the shape of a diamond called a Diamante. It means “diamond” in Italian. It uses adjectives and verbs to describe two opposite nouns, or antonyms. Of the 7 lines, the 1st 3 ½ describe or modify the 1st noun, and the 2nd 3 ½ describe the last nouns. See the format and some examples below.

Poetry

The Diamonte Poem
form invented by Iris M. Tiedt

noun

adjective adjective

-ing word* -ing word -ing word

noun noun noun noun

-ing word -ing word -ing word

adjective adjective

noun
(antonym to subject)

A verb describing a noun, usually ending in -ing, is a **present participle*

Diamante Poem Examples

Winter
Frosty, Bright
Skiing, Snow Ball Fighting, Sledding
Icicles, Snowflakes, Vacation, Family
Swimming, Sun Tanning, Sweltering
Hot, Sunny
Summer

smile
happy, warm
welcoming, inspiring, soothing
curve, lips, expression, emotion
disturbing, deterring, depressing
sad, unwelcome
frown

MY ADVERB POEM

Laugh _____!
Sing _____!
Jump _____!
Run _____!
Dance _____!
Smile _____!
Rest _____!

When writing your poem, you can use some words from the word bank. Try to think up some of your own adverbs too.

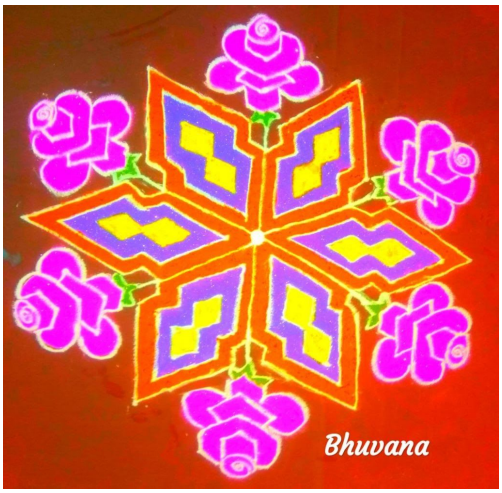
Adverb Word Bank

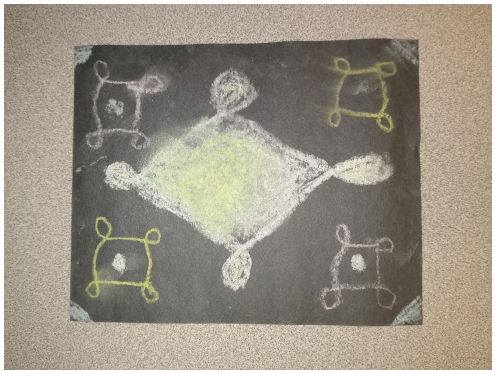
amazingly awesomely beautifully boldly brilliantly calmly cheerfully crazily daringly dreamingly eagerly enthusiastically excitedly fiercely freely gently gleefully gracefully happily hurriedly imaginatively immediately joyfully loudly lovingly magically merrily noisily playfully proudly quickly quietly wildly wonderfully zestfully

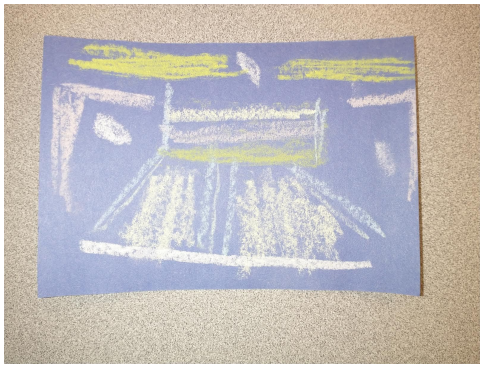
- **Creative Writing** - Circle Stories. Our in person learners have been enjoying writing stories inspired by “If You Give a Mouse a Cookie” and “If You Give a Dog a Doughnut” by Laura Numeroff. Enjoy the story and have fun writing your own. Use the pattern language of “If you give a ____a _____, she will want a _____ to go with it. This will remind her of _____. She will want a _____ to go with it. And chances are ……..”. Choose an animal, then choose something you give it. End the story with the same thing. Have fun!
  https://www.youtube.com/watch?v=QCDPkGjMBro

Movement, Music, Enrichment

- **Art** - A *Kolam* is an Indian art form of geometric patterns, used as a sign of welcome. Drawn outside homes, the beautiful designs are made of dots and lines and give a sense of joy and calm to all who enter. Traditionally hand-drawn with rice flour, kolams are inclusive and eco-friendly. These colorful designs were drawn as a welcome to our new president and vice president on inauguration day at the capitol building. Here is a picture of what they looked like as well as an example of a single one up close. Our in person students used chalk to make theirs.







- **Music** - "*This Little Light of Mine"*. In honor of Dr. Martin Luther King, the civil rights movement and Black History month, join our in person learners by singing this tune. It brightens up even the darkest winter nights. https://www.youtube.com/watch?v=QCN893hzueQ