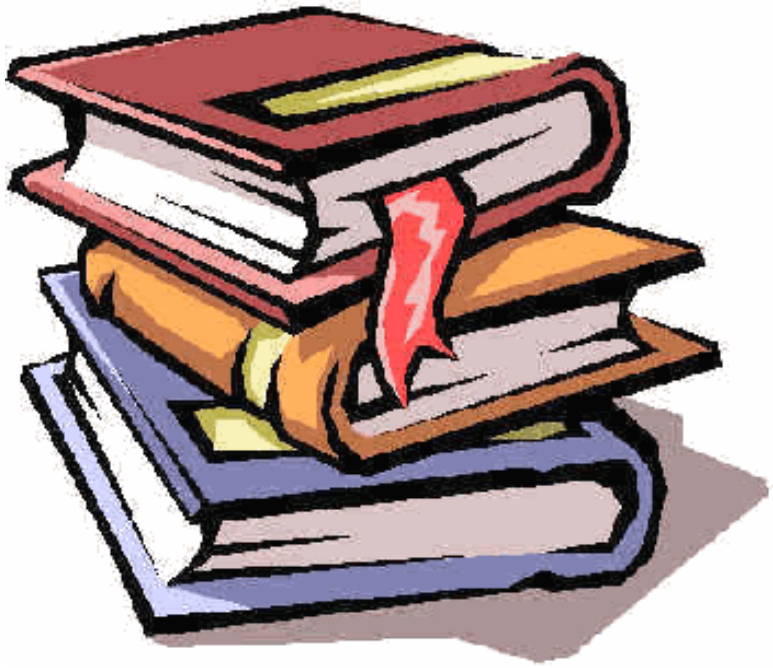
Destiny Awaits..



3rd Grade AAP
Supplemental Packet

Student's Name: _____

School: _____

Teacher: _____

Dear Richland One Families,

Thank you for your support, patience, and flexibility during what has proven to be a time marked with immense uncertainty. You truly are what makes our school district R1Strong!

In this packet, you will find AAP Extension activities for your child. These activities should be used as a supplement to the grade level packet your child receives. Your child's teachers may contact you regarding additional assignments. In that case, the teachers' assignments should be completed first, and the assignments in this packet should be completed as time permits.

Students should be able to complete some of the assignments independently; however, there will be some assignments that require your support. While we expect students to work hard each day, they may or may not complete all of the listed assignments. Children may return to a previous day's work to complete any missed assignments, or move ahead if they have completed assignments quickly. Furthermore, if your child qualifies for accommodations through either an IEP or 504, please connect with the teacher or other service provider to ensure accommodations are provided.

In the coming days, additional learning activities will be posted to the Richland One website (www.richlandone.org) as well as on our Richland One Television Channel (ROTV). You may contact your child's teachers for assistance using the already established communication protocol. Additionally, teachers will continue to provide office hours daily from 9:30 a.m. – 11:00 a.m. and 1:00 p.m. – 2:30 p.m.

In closing, while we have tried to provide academic activities to reinforce prior learning and to ensure your child continues to learn, what is most important during this difficult time is that you and your child have positive experiences together. As you take care of yourself and your family, we wish you the very best health and look forward to the time normal schedules resume and your child will be back with us.

Office of Elementary Education
Division of Teaching and Learning

AAP ELA Extension Activity 1

Roly-Poly Pill Bugs

by Cynthia Sherwood

Some people are afraid of bugs such as spiders or beetles. But there is one bug that just about everybody likes—pill bugs. If you ever pick one up, you know why its nickname is "roly-poly." A pill bug rolls up into a tight little ball to protect itself. This bug is scared of you, not the other way around!

These little gray or brown bugs can be found almost everywhere in the United States except the desert. That is because they need to stay moist. But they can live in dry places like California thanks to lawn sprinklers. One of their favorite hang-outs is under damp flower pots.

Did you know that pill bugs have something in common with kangaroos? After her eggs hatch, the mother pill bug carries her young in a pouch under her belly. The little pill bugs stay there until they are big enough to be on their own.

Pill bugs also have something in common with snakes. Just as snakes shed their skin when it gets too small, pill bugs do too. This is called "molting." A pill bug molts about five times until it is full-grown.

Pill bugs are a little like owls, too. Pill bugs are nocturnal, meaning they are most active at night. That is when they most like to wander around and look for food. And just like earthworms, pill bugs help break down plants in the soil. Pill bugs aren't just nice bugs. They are also interesting ones!

AAP ELA Extension Activity 1

Roly-Poly Pill Bugs

by Cynthia Sherwood

1. Why are pill bugs nicknamed "roly-poly"?

_____

_____

2. Where would you be least likely to find a pill bug?
   - **a.** under a large rock near a pond
   - **b.** under a log near a downspout
   - **c.** in a vegetable garden
   - **d.** hiding in the roots of a cactus

3. How is a pill bug like a kangaroo?

_____

_____

4. What does the word "molting" mean?
   - **a.** active at night
   - **b.** shedding its skin
   - **c.** crawling in a damp place
   - **d.** crawling like a snake

5. How are pill bugs and earthworms alike?

_____

_____

6. Which statement from the article is an opinion?
   - **a.** This bug is scared of you, not the other way around.
   - **b.** A pill bug molts about five times until it is full-grown.
   - **c.** Pill bugs aren't just nice bugs; they are interesting ones.
   - **d.** One of their favorite hang-outs is under damp flower pots.

AAP ELA Extension Activity 2

Word Study

Digraph creator. Using the onsets and rimes, create as many words as you can. Write the words on a separate sheet of paper.

Onsets			
Ch	Sh	S	Th
Qu	Fl	T	H

Rimes			
at	ake	in	ick
ip	ot	ug	est

Now write 5 compound sentences using the words that you've created. Number your paper 1-5.

1._____

_____

2._____

_____

3._____

_____

4._____

_____

5._____

_____

The Growth Mindset

CLOSE READ PASSAGES

Photo credits: Page 1: © Hanza Hruby/Shutterstock

One teacher praises a student by saying "You're so smart!" Another teacher says, "You must have worked really hard at this!" Which student does better in school? Studies show that students who hear the words of the second teacher will do better. Those students are learning that their effort is important.

Psychologists looked at what grade school students did after they were given different types of verbal praise. Some students were told that they were good at a task. They didn't try very hard the next time. Other students were told that they had worked hard at a task. They worked even harder the next time. The first group of students was learning that they had a set amount of skill. They didn't think they could do any better. This is called a *fixed mindset*. The second group was learning that they could do better if they kept trying. This is called a *growth mindset*. People who have a growth mindset believe that the brain can grow; people can do better and learn new skills. If they work hard, they can be successful.

Word Wise

A mindset is a person's set of feelings or beliefs about something.

A Mindset Pioneer

Carol Dweck is a psychologist and the first person to use the term *growth mindset*. She has been studying young students for more than forty years. She believes that when teachers and parents praise a student's learning strategies, it becomes a pathway to success.

How can teachers and parents help students succeed? They can focus primarily on effort and not simply on ability. When students succeed, teachers and parents should praise the actual work put forth rather than intelligence or talent. When students fail, they should be told how they can do better. Teachers, parents, and students need to value effort, not intelligence.

Beliefs of Fixed and Growth Mindsets

	Fixed Mindset	Growth Mindset
SKILLS	Things you are born with that cannot change	Things you can grow and improve with hard work
EFFORT	Something to avoid—could show lack of skill	Something important—leads to success
CHALLENGES	Things to avoid—in case you aren't good enough	Things that help you learn
FEEDBACK	Something negative	Something to learn from
SETBACKS	Discouraging things that happen out of your control	Helpful things you can learn from

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AAP ELA Extension Activity 3

AAP ELA Extension Activity 3

Close Reading Questions

Answer the questions on a separate sheet of paper. Make sure to write in complete sentences.

Read 1 The Growth Mindset

1. What is a fixed mindset?

Read 1 The Growth Mindset

2. What is a growth mindset?

Read 1 The Growth Mindset

3. According to the passage, how can teachers and parents help students succeed?

Read 2 The Growth Mindset

4. What does the word *effort* mean? Why is it important to focus on a student's effort rather than his or her ability?

Read 2 The Growth Mindset

5. How does the chart inform readers about the differences between fixed mindset and growth mindset?

Read 3 The Growth Mindset

6. How might a teacher or parent praise students to build their growth mindset? Why is this type of praise important?

Read 3 The Growth Mindset

7. How might having a growth mindset help students reach their goals? How might having a fixed mindset limit students from reaching their goals?

Read 3 The Growth Mindset

8. Why are people with a growth mindset more successful?

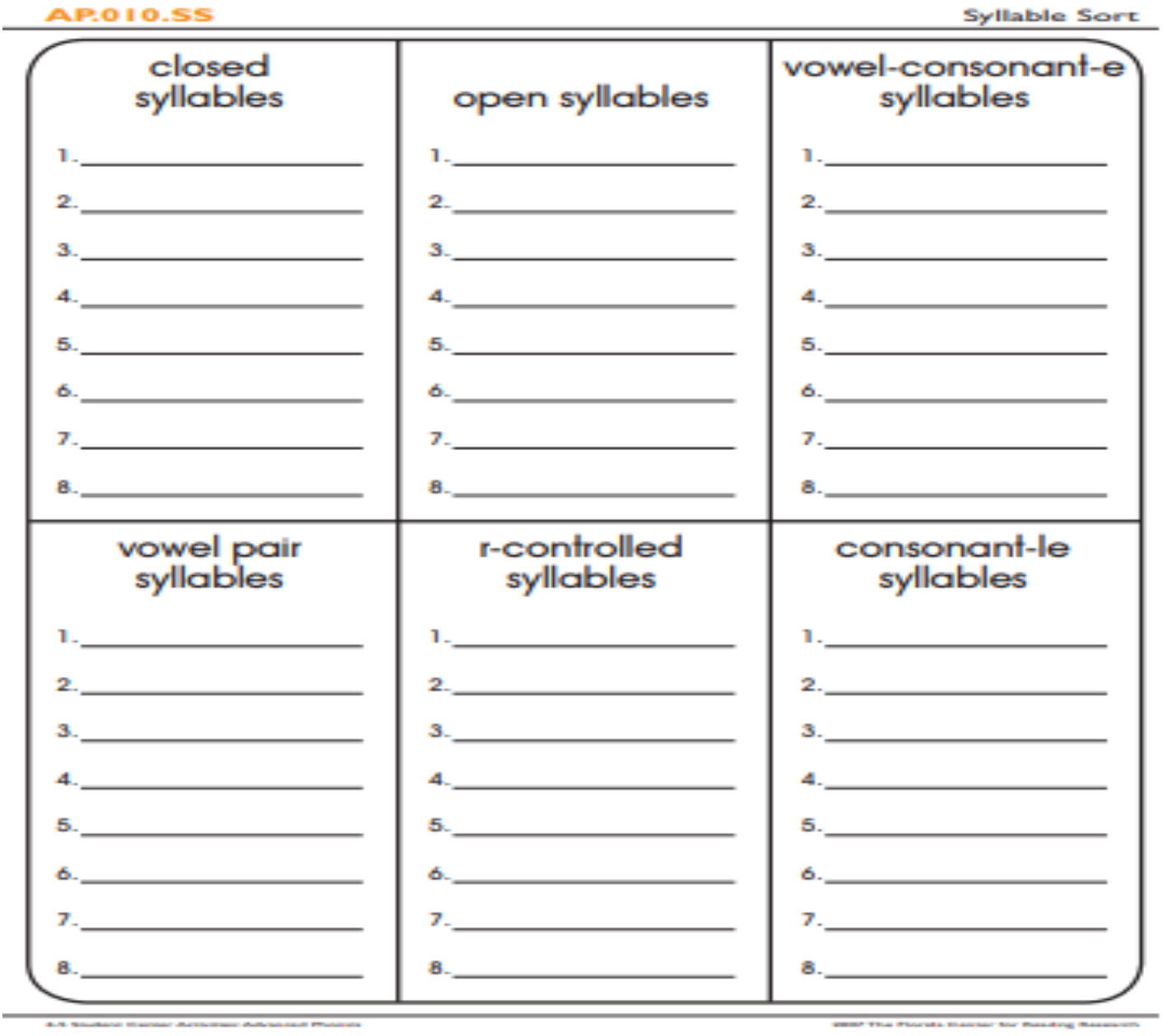
Extension Activity The Growth Mindset

Do you agree with author's point of view on growth mindset? Write a paragraph explaining whether or not you agree with author's point of view. Use examples from the text to support your answer.

AAP ELA Extension Activity 4

Read each word. Identify the type of syllable of the underlined syllable. Write the word in the correct column.

Mechanic	Devote	Telescope	Market	Wheelchair	Pineapple
Calendar	Intelligent	Magnificent	Chemical	Detergent	Absolute
Imimtation	Identity	Penetrate	Trademark	Mircophone	Limelight
Freeway	Keyboard	Entertain	Disagreed	Participate	Passenger
Landmark	Intersect	Rattlesnake	Quadruple	Resemble	Motorcycle



AP.010.SS

Syllable Sort

closed syllables	open syllables	vowel-consonant-e syllables
1.	1.	1.
2.	2.	2.
3.	3.	3.
4.	4.	4.
5.	5.	5.
6.	6.	6.
7.	7.	7.
8.	8.	8.

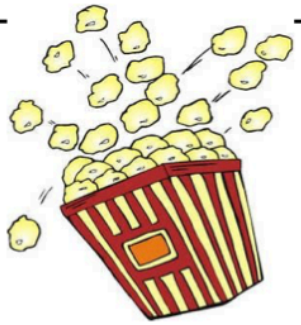
vowel pair syllables	r-controlled syllables	consonant-le syllables
1.	1.	1.
2.	2.	2.
3.	3.	3.
4.	4.	4.
5.	5.	5.
6.	6.	6.
7.	7.	7.
8.	8.	8.

AAP ELA Extension Activity 5

Name: _____

More Than Just a Snack Food

by Sandie Lee



It's been around for over 5000 years. It was an important staple to the Aztec Indians and it even helped in the inventing of the first microwave oven. Can you guess what it is? That's right, it's popcorn.

The oldest corn ever discovered, was found in a New Mexico rock formation called "the Bat Cave." These ears of corn ranging from smaller than a penny to about 10cm long, are thought to be approximately, 5600 years old. Kernels of corn have also been found in tombs in Peru and some still pop after 1000 years.

Popcorn was known as *momchitl* to the 16th century Aztec Indians, and played an important role in their lives. They used it not only as a food source, but also in their ceremonies.

Garlands and headdresses were made from thick rows of popcorn and used in traditional dances. Popcorn was also thought to bring peace and goodwill. Perhaps that is why, statues of one of their most important gods, Tlaloc *(Tlah-loc)*, their ancient god of rain, was also adorned with popcorn necklaces.

One account tells of the Aztec people scattering *momchitl* before the fishermen went out to sea. The popped corn represented hailstones and was given to the god of water, in hopes of a safe journey for them.

Popcorn poppers have changed drastically over the years. Some ancient poppers were made out of soapstone or clay. This covered bowl was hung from a tripod-like holder and placed directly over the fire. Another method of popping corn is from the Winnabago Indians. They just stabbed a pointy stick through the entire cob, then held it close to the fire. When finished, it was eaten like corn-on-the-cob.

Today, we have microwave ovens that do all the popping for us. In fact, it was popcorn that actually helped invent the first microwave. In 1946 an engineer by the name of Percy Spencer was experimenting with a new vacuum tube called a magnetron. (Magnetrons are used to produce the high energy that is used in microwaves.) When he was working with the magnatron, he realized the candy bar in his pocket had melted. So being the electronics whiz that he was, Percy Spencer had an idea and immediately sent for some popcorn. This time he placed the popcorn kernels near the tube and soon history was made. The kernels popped and he went on to create the first microwave oven.

Who knew popcorn had such a history? From caves to ceremonies to microwaves, this fun food has seen it all. Perhaps that's why it has stood the test of time and still remains a favorite today.

Did You Know...

The first microwave oven was 6 feet tall and weighed 341 kilograms. That's 750 pounds! Microwave popcorn sales amount to 250 billion dollars a year.

Popcorn Shapes

Popcorn pops into one of two shapes. The snowflake, which is big and fluffy or the mushroom which is round and firm.

The biggest popcorn ball recorded today is from The Popcorn Factory in Lake Forest Illinois. It weighs in at 3,423 pounds and is 8 feet in diameter and 24.5 feet around. That's about 50,000 times bigger than normal popcorn balls and it's all edible.

Happy Popcorn Day!

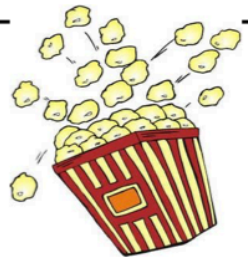
There's actually a National Popcorn Day. It's celebrated on January 19th. So get popping and celebrate.

AAP ELA Extension Activity 5

Name: _____

More Than Just a Snack Food

by Sandie Lee



1. When did people first start popping popcorn?

- **a.** shortly after the microwave was invented
- **b.** in 1946
- **c.** about one thousand years ago
- **d.** over 5,000 years ago

2. When is National Popcorn Day?

- **a.** the first or second week in January
- **b.** the third or fourth week in January
- **c.** seventeen days after New Year's Day
- **d.** the last week in January

3. Draw a detailed picture of an ancient clay popcorn popper cooking on a fire.

Use information from the article to form your illustration.

4. Explain how the Winnabago Indians cooked popcorn.

_____

_____

5. Who was Tlaloc?

- **a.** the Aztec god of popcorn
- **b.** the Aztec god of fishing
- **c.** the Aztec god of rain
- **d.** the Aztec god of peace and goodwill

6. Which sentence is an opinion?

- **a.** Many people enjoy popcorn today.
- **b.** Aztec people of long ago believed that popcorn brought peace and goodwill.
- **c.** The biggest popcorn ball in the world is in Lake Forest, Illinois.
- **d.** Today, the best way to pop popcorn is with a microwave oven.

AAP ELA Extension Activity 6

Using the words below, complete 3 activities on the Word Study Choice Board found on the next page.

Word Study - Sort 25

Mono- "one"	Uni- "one"	Bi- "two"	Tri- "three"
Monolingual	Uniform	Bilingual	Triangle
Monologue	Universal	Biceps	Triad
Monotonous	Unilateral	Bisect	Triceratops
Monopoly	Unify	Binary	Trilogy
Monorail		Bimonthly	Triathlon
Monotone		Bifocals	Tripod
		Biennial	Trillion

AAP ELA Extension Activity 6

WORD STUDY CHOICE BOARD

Context Clues Choose 10 words. Write a detailed sentence using each word. Date: _____ Initial: _____	**Rainbow Spelling** Write your words 5x each with different colors. Date: _____ Initial: _____	**Type your words** If available, type your words on the computer or other device. Date: _____ Initial: _____
Silly Story Choose 10 of your words. Write a silly story using them. Remember to underline your words. Date: _____ Initial: _____	**Code Creation** QUICKLY assign each letter of the abc's a number. Then, write each word and write the code. EX: A=4 B=13 C=9 Date: _____ Initial: _____	**ABC Order** Write your words in ABC order under the correct headers. a / aCe / r-controlled mat / late / cart math / state / start Date: _____ Initial: _____
Backwards to Forwards Write each word backwards and then forwards. Date: _____ Initial: _____	**Color Code** Write the vowels in **blue** and consonants in **red**. Date: _____ Initial: _____	**Wrong Hand** Use the opposite hand you write with to write each word. Date: _____ Initial: _____
Cursive Words Write each word in cursive 3x! Date: _____ Initial: _____	**Words Within Words** Write each spelling word and then write at least two new words made from that word. EX: **catch** cat hat Date: _____ Initial: _____	**Practice Test** Take a practice spelling test. Have someone read the words out to you as you write them in your notebook under the correct headers. Date: _____ Initial: _____

Many schools give students less time in physical education classes so they can have more time in science and math classes.

Is PE Worth the Time?

In today's world, students must understand math and science. However, high school students in the United States were not doing well in these subjects compared with students in thirty-five other countries. A 2015 study showed that they placed nineteenth in science and thirty-first in math. As a result, American schools started to provide more time in the classroom for math and science. Schools think it is most important for students to learn these subjects.

There is only so much time in a school day. To fit in more math and science, schools have cut back on time spent in physical education (PE) classes. Each state can make its own laws for how much PE students need to take. For example, in 2017, Illinois cut back on gym classes. Before, students had to take PE every day. Now, they only need to take it three days per week. After seventh grade, students don't need to take PE if they do other sports.

The government recommends that school-age children be active for at least an hour each day. Many children get very little exercise in their free time, however. Children often spend their time in front of a screen instead, whether it is a cell phone, computer, or TV. Not exercising enough can lead to health problems like obesity and stress. Schools can help by encouraging students to get active or by requiring it through PE.

Getting Active in the Classroom

Teachers can encourage movement with ideas like these:

- Ask children to walk around the room to check out charts or pictures that help them complete a lesson.
- Play games in which jumping jacks or other activities are part of the fun.
- Let children move around in group work and go to the board to write answers.

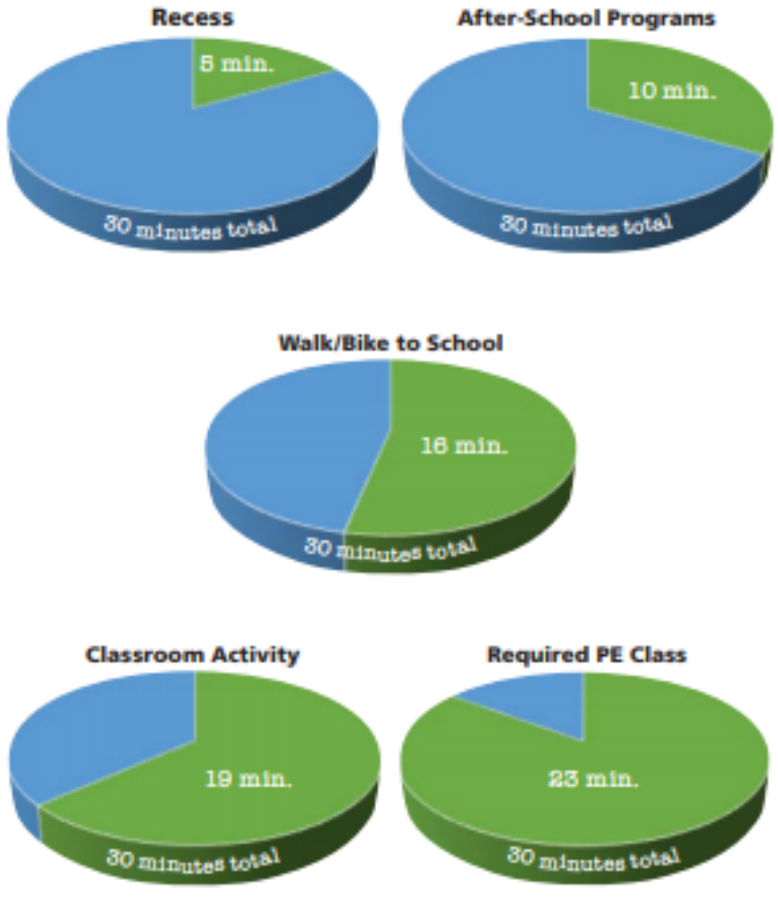
AAP ELA Extension Activity 7

Different exercises, such as lifting weights or using hula hoops, help students build muscles.

Health experts think elementary school kids should have physical education for two and a half hours every week. That would mean having PE for a half hour every day. Middle and high school kids should have forty-five minutes of PE every day. Required PE classes ensure that all students benefit, not just the ones who do sports after school.

Research shows that exercise helps students in many ways. Building muscles makes kids stronger and healthier. Active kids sleep and feel better. Exercise even helps children's brains. When people exercise, more blood flows to the brain, which helps them think more clearly. PE class could turn out to be more important than schools think.

Physical Activity During the School Day in the United States



On average, students across grade levels get a certain amount of physical activity from different sources at school. Younger students should get at least thirty minutes of PE every day.

Data source: Bassett et al. 2013. *American Journal of Preventative Medicine* 44(2): 108-113.

Photo credits: Page 1: © iStock.com/SolStock; page 2: © Hero Images/Getty Images; page 3 (all): © iStock.com/FatCamera

AAP ELA Extension Activity 7

AAP ELA Extension Activity 7

Close Reading Questions

Answer the questions on a separate sheet of paper. Make sure to write in complete sentences.

Read 1 — Is PE Worth the Time?

1. Why did some schools in the United States cut back on time spent in PE classes?

Read 1 — Is PE Worth the Time?

2. Why have American schools provided more time for math and science instruction?

Read 1 — Is PE Worth the Time?

3. What are some benefits of exercise?

Read 2 — Is PE Worth the Time?

4. What can readers learn from the data on page 4?

Read 2 — Is PE Worth the Time?

5. How do the photographs support the text?

Read 3 — Is PE Worth the Time?

6. Do you think there is a connection between physical education and higher scores in math and science. Why or why not?

Read 3 — Is PE Worth the Time?

7. What is the author's point of view about children being active? Do you agree or disagree?

Read 3 — Is PE Worth the Time?

8. Should PE be required in schools?

Extension Activity — Is PE Worth the Time?

Is it worth giving students the time for PE? Write a letter to the principal at your school explaining why it is or is not worth giving students time for PE.

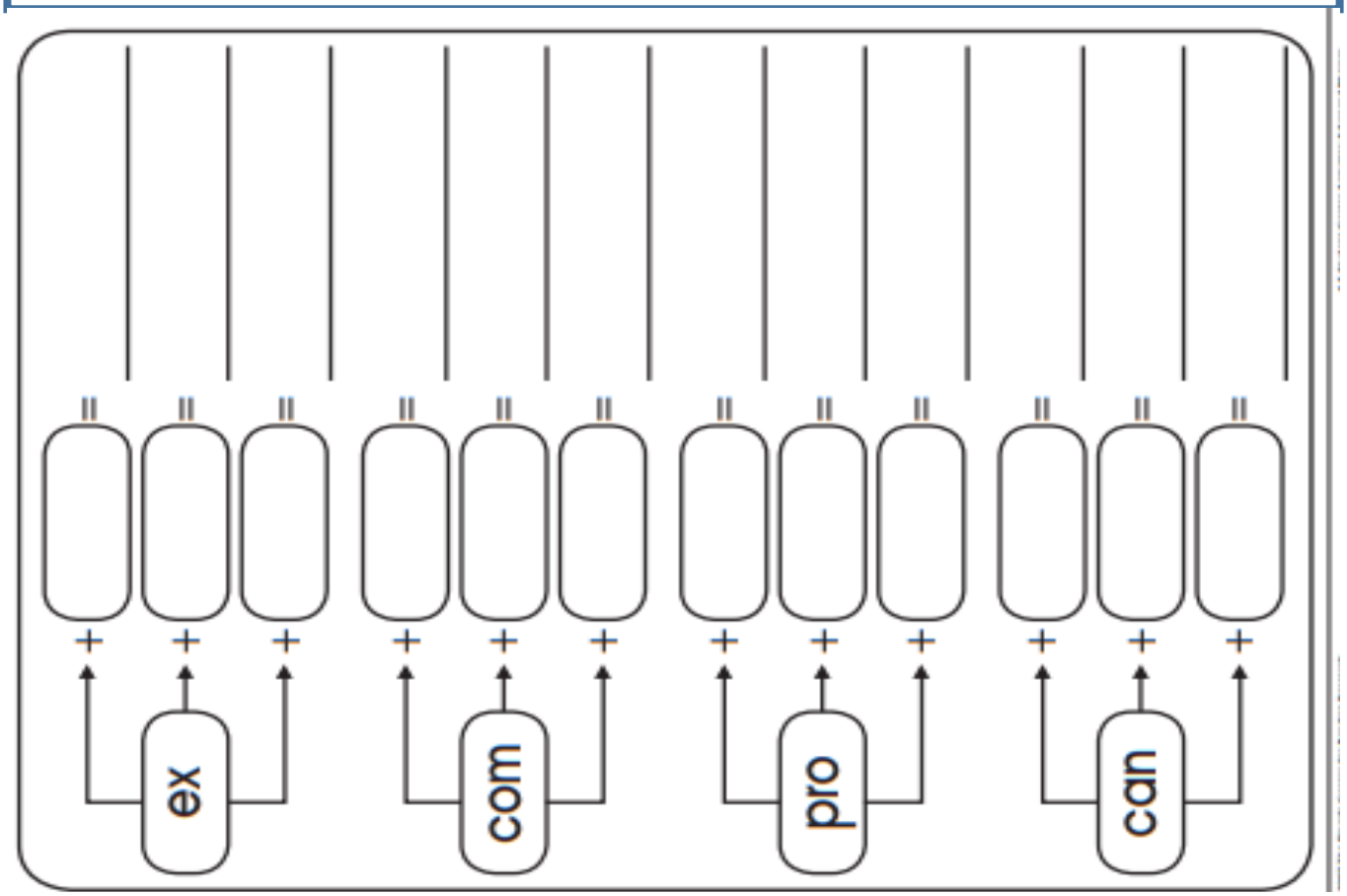
AAP ELA Extension Activity 8

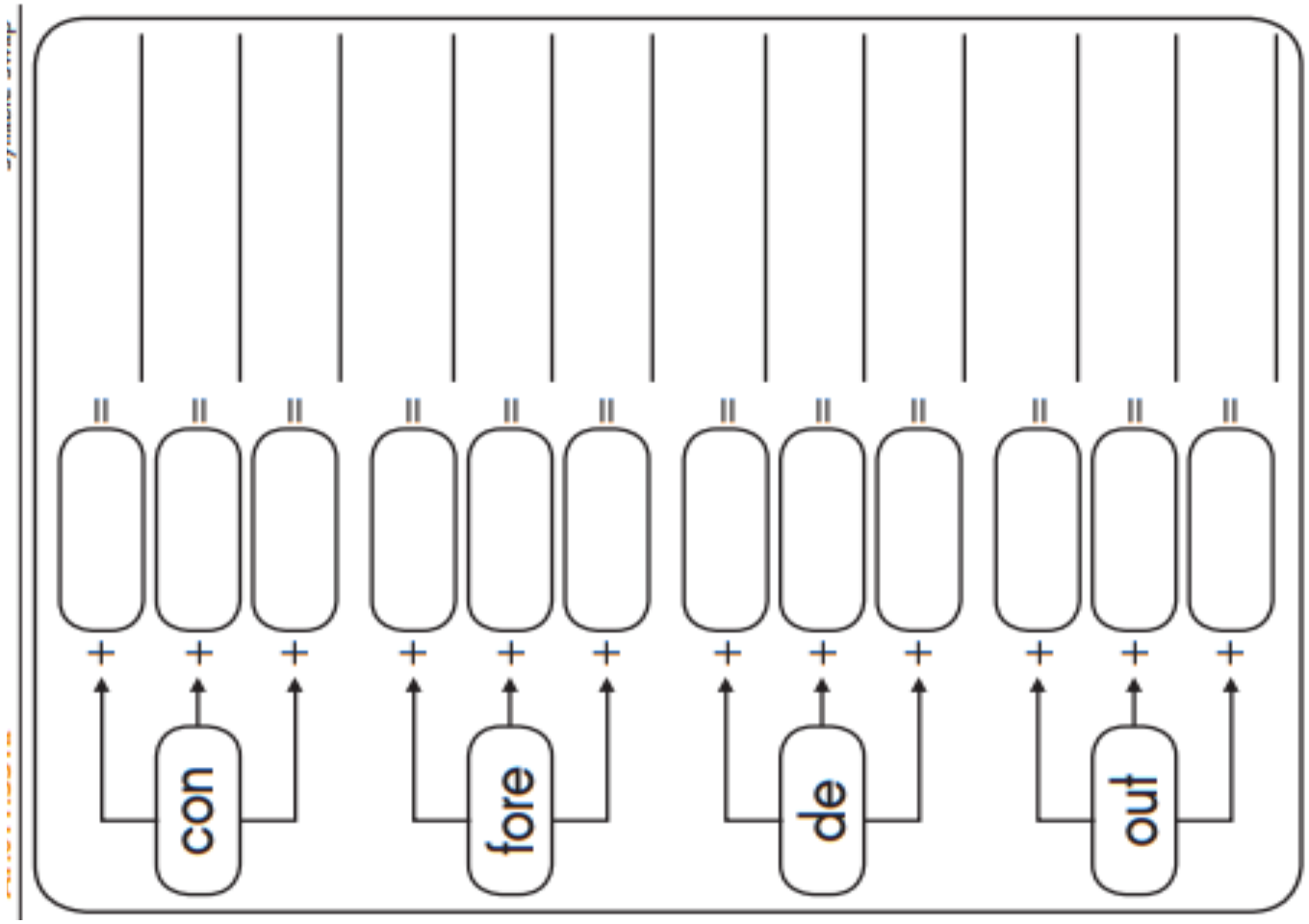
Word Study

The table has final syllables. On the next sheet, combine the final syllable with an initial syllable to make a real word.
Challenge: on a separate sheet of paper write five sentences using the words you created.
Example: con + cert = concert

cert	**vince**	**trol**
ny	**stroy**	**pend**
pect	**haust**	**ist**
head	**arm**	**word**
gram	**ton**	**trude**
cel	**teen**	**vas**
plex	**pete**	**bat**
come	**law**	**line**

AAP ELA Extension Activity 8





AAP ELA Extension Activity 9

Name: _____

Magical Cartoonist

By Cynthia Sherwood

Without the creativity of one man, there would be no "happiest place on earth," also known as Disneyland. Walt Disney was a creative genius who looked out on a huge orange grove and imagined building a "magic kingdom."

Disney was born in 1901 in Chicago, Illinois. As a child, he enjoyed drawing and even sold his pictures to neighbors. When he was sixteen, he joined the Red Cross and drove an ambulance in France during World War One. After the war ended, Disney started making short cartoons in Kansas City, but soon ran out of money. He decided to find his fortune in Hollywood. He came to California with a suitcase and $20 in his pocket.

It took a while, but Disney began to enjoy success with his cartoons. He created Mickey Mouse, the most famous cartoon character ever. Then in 1937, Snow White and the Seven Dwarfs premiered. It was the first full-length animated movie, and a huge success. Disney made many more movies that we still watch today, including Pinocchio, Dumbo, and Bambi.

It was in the 1940s that Walt Disney first had his brainstorm about a fun park for families. His idea grew bigger and bigger, and he realized he needed a lot of space for his park. He wanted it to have everything—a mountain, rockets, spinning teacups, and a fairy castle!

Years after Walt Disney first had the idea, Disneyland opened in 1955 in a former orange grove in Anaheim, California. Admission cost a dollar. By its tenth anniversary, 50-million visitors had come to the Magic Kingdom.

Disney died in 1966, a few years before the opening of his next dream project, Disney World. If you ever visit one of the parks, go to a Disney movie, or watch the Disney Channel, you can think of the man with amazing ideas who started it all.

AAP ELA Extension Activity 9

Name: _____

Magical Cartoonist

By Cynthia Sherwood

1. List two things that Walt Disney did before he began making cartoons.

_____

_____

_____

2. Place these events in sequential order. Label them with numbers 1-5 to show which happened first, second, third, fourth, and fifth.

_____ Disneyland opened in California.

_____ Snow White and the Seven Dwarfs premiered.

_____ Disney moved to Hollywood, California.

_____ Walt Disney worked as an ambulance driver in France.

_____ Walt Disney lived in Kansas City and made short cartoons.

3. How many years ago was Disneyland first opened to the public?

_____

_____

4. Which statement is an opinion?

a. Disney made many movies that we still watch today.

b. In the 1940s, Disney had a brainstorm about a fun park for families.

c. Disneyland opened in a former orange grove.

d. Walt Disney was a creative genius.

AAP ELA Extension Activity 10

Complete 1 activity of your choice under each letter.

Informational

W	R	i	T	e
Choose an animal that you know a lot about. Write an informational essay about that animal.	Write a biography of a famous person or a person in your family.	Think of a task or skill that you know how to do well. Write a how-to paper explaining how to do that skill.	Write to the grade level below you, teaching them how to be successful in your grade level.	Write an informational paper explaining how to be a good student, behaviorally and academically.
Think of a hobby you really enjoy doing. Write a letter to the editor of the local newspaper, describing your hobby and why you like it.	Think of something you can make with your hands. Write an explanation so that someone else can make the same object.	Inventions make our world the way it is. Write about one helpful invention. Include what it does and how it is helpful.	Think about what you want to be when you grow up. Write a paper about the career you would like.	Think about someone you respect. This can be someone you know or someone you have learned about. Write a paper about this person.
Bullying is a widespread problem. Write a paper informing schools about how to stop bullying.	Being safe at home and school is important. Write to explain how to be safe at home and at school.	People have needs and wants in life. Write a paper comparing and contrasting needs and wants. Include examples of each in your paper.	Friends are very important to some people. What makes a good friend? Write an informational essay about what it takes to be a good friend.	Choose two animals, objects, places, or people to compare and contrast. Include three ways they are the same and three ways they are different.

AAP Math Extension Activity 1

Name _____

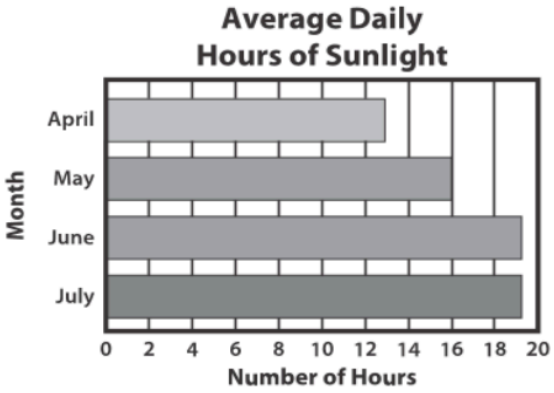
enVision® STEM Activity 7-1

Weather Forecast

Did You Know? There are many different methods used to forecast the weather. However, meteorologists always use math to help create their forecasts!

If a cold front moves 800 miles in a day, the forecaster might predict it will move another 800 miles the next day. This method works when the weather system the cold front is a part of moves at the same speed and in the same direction.

Meteorologists also use data from previous years to predict upcoming weather patterns. A meteorologist researched the hours of sunlight in some months from the previous year. She created the graph at the right to help her.



1. What was the average number of hours of sunlight for days in April? _____

2. How many more average daily hours of sunlight were there in June than in April?

3. Which months received the same daily average hours of sunlight? Explain.

4. How would you write a forecast for the hours of sunlight for this coming May?

5. **Extension** Record the daily high and low temperatures in your town for one week. Use your data to make a temperature forecast for the same week next year.

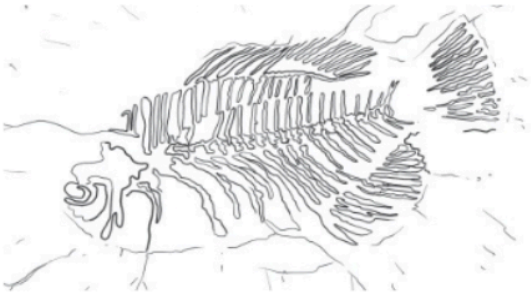
AAP Math Extension Activity 2

Name _____

enVision® STEM Activity 12-7

Fossils

Did You Know? Fossils are the remains of ancient animals and plants. Over a long period of time, the remains of animals or plants are compressed and buried under many layers of sediment. A fossilized object has the same shape as the original object, but has transformed into a rock.



When paleontologists uncover a fossil, they record the length of the fossil. The table shows the lengths of various fossils found by a paleontologist.

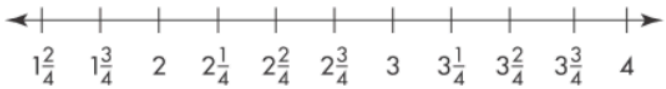
Fossil Lengths (feet)

$1\frac{2}{4}$	2	$2\frac{3}{4}$	$3\frac{3}{4}$	$2\frac{3}{4}$
$2\frac{3}{4}$	4	$1\frac{3}{4}$	3	$1\frac{3}{4}$

1. Complete the line plot to show the data.

2. What is the most common fossil length found by the paleontologist?

_____



3. What is the length of the longest fossil? What is the length of the shortest fossil?

_____

4. **Extension** The paleontologist found 2 more fossils. Both fossils are $1\frac{3}{4}$ feet long. Explain how to change the line plot to include these fossil lengths. Would your answer to Exercise 2 change? Explain.

_____

_____

AAP Math Extension Activity 3

Name _____

enVision® STEM
Activity
15-4

Shapes

Did You Know? Objects move because there is force acting upon them. A force is a push or pull on an object. If an object is moving, then the forces acting on the object are unbalanced. For example, when you throw a ball, the force of your arm pushing is greater than the outside forces. If an object is not moving, the forces are balanced. For example, a coin resting on a desk does not move because the force of gravity and the force of the table are equal.

The class is conducting an experiment on forces. Each student is given the description of a shape to make. Then each student will use a string to pull his or her shape along the ground and determine the force.

1. Raphael's shape is a quadrilateral with opposite sides that are the same length. Draw a possible shape Raphael could have made. Is there more than one type of quadrilateral that would correctly match the description? Explain.

2. Kamara's shape is a concave quadrilateral with all sides of different lengths. Draw a possible quadrilateral Kamara could have made.

3. Is there any other shape that Kamara could have made? Explain.

4. **Extension** Write the description of a new shape for the project. Then draw the shape.

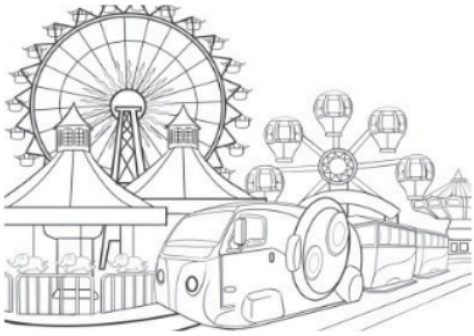
AAP Math Extension Activity 4

Name _____

enVision® STEM
Activity
14-9

Magnetic Movements

Did You Know? You can find magnets in most electronic devices. Computers, televisions, and microwave ovens all operate with magnets. Magnets are used to keep refrigerator doors closed, as well as to slow down subways and roller coasters.



Magnetic trams at an amusement park leave the south gate and travel 12 minutes to the west gate. After the trams arrive at the west gate, they wait for 14 minutes before going to the north gate. At what time does Tram 1 leave for the north gate?

Tram Time

Tram	Leaves South Gate	Travel to West Gate	Wait Time
Tram 1	10:05 A.M.	12 minutes	14 minutes
Tram 2	10:20 A.M.	12 minutes	14 minutes

1. Tell how you can show the relationships in the problem.

2. Solve the problem and explain your reasoning. You can use a picture to help.

3. **Extension** Tram 3 leaves the west gate for the north gate at 11:01 A.M. At what time did Tram 3 leave the south gate? Explain.

AAP Math Extension Activity 5

Name _____

Enrichment
14-2

Field Trip Planning

Your class is planning a field trip to the science museum. You have been asked to make a schedule. You need to show the start time and end time at each location you choose. The length of time the class will stay at each location is shown in the table to the right.

The trip will begin at 10:00 A.M. and will need to end by 4:30 P.M. You need to have lunch on your schedule. Leave 5 minutes between locations for time to get from one place to another place.

Location	Total Time Allowed
Animal Habitats	130 minutes
Bugs and Plants	80 minutes
Colors and Light	75 minutes
Electricity	30 minutes
The Human Body	125 minutes
Lunch Room	45 minutes
Machines and Robots	35 minutes
Ocean Life	120 minutes
Surrounded by Sounds	40 minutes

Field Trip Schedule

Location	Beginning Time	Ending Time
	10:00	

What is the total elapsed time for your field trip schedule?

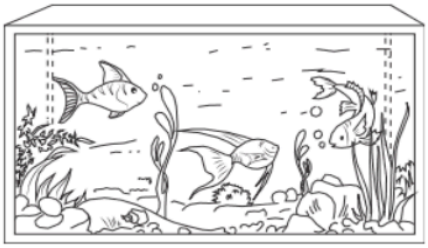
AAP Math Extension Activity 6

Name _____

Enrichment
14-5

Fish Tales

Some people use a chart like the one shown to help them decide how many fish they can put in their fish tank. Use the chart to answer the following questions.



Length of Fish	Water needed for each fish
1 centimeter	2 liters
2 centimeters	4 liters
3 centimeters	6 liters
4 centimeters	8 liters

1. Marla has a 36-liter fish tank. How many 3-centimeter fish can she put in the tank?

2. Nicki wants to buy a fish tank and stock it with twenty 2-centimeter fish. What size tank should she buy?

3. Manuel wants to buy a fish tank and stock it with ten 1-centimeter fish, four 2-centimeter fish, and two 4-centimeter fish. What size tank should he buy?

4. Leonard has six 3-centimeter fish in his 68-liter fish tank. How many 4-centimeter fish can he add to the tank?

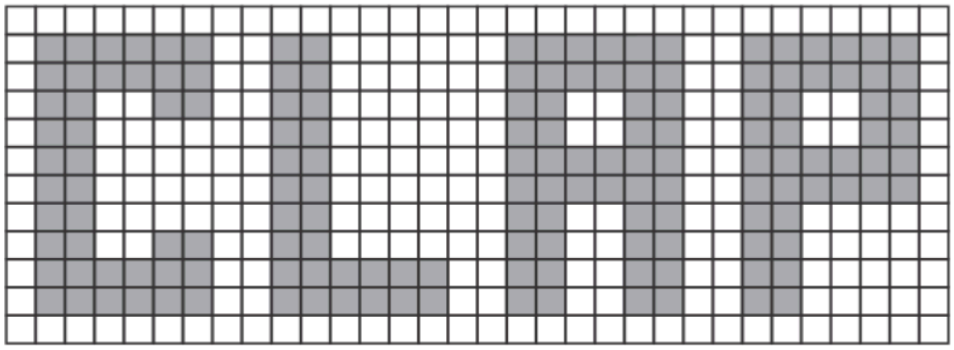
5. Mason has a 64-liter fish tank. Describe one possible way he could stock the tank with different sizes of fish.

AAP Math Extension Activity 7

Name _____

Enrichment
6-6

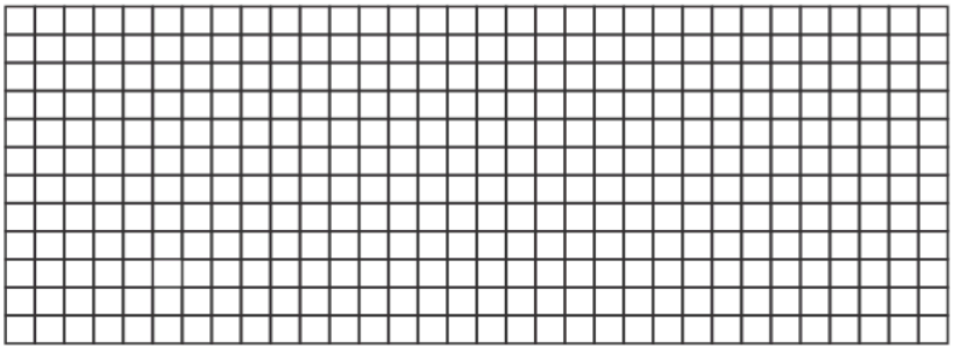
Applause



1. Complete the table below by writing the outside perimeters and areas of the block letters. (Hint: You can break the areas into smaller parts.)

Letter	Perimeter	Area
C		
L		
A		
P		

2. Draw your initials in block letters on the grid below and find the outside perimeter and area of each letter.



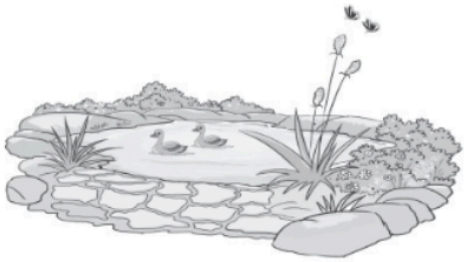
AAP Math Extension Activity 8

Name _____

enVision® STEM
Activity
16-1

Pond Life

Did You Know? A pond is a small area of still, fresh water. A pond is different from a lake because it has a small area and is generally less than 6 feet deep. All types of plant and animal life thrive in ponds.

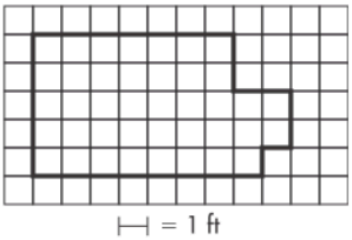


Keith and Drew want to build a pond in their backyard. They will need a pond with a perimeter of at least 30 feet. They each make their own design.

1. What is the perimeter of Keith's design?

_____

Keith's Design



2. Drew forgot to mark one side length on his design. He knows the perimeter is 31 feet. What is the missing side length? Explain.

_____

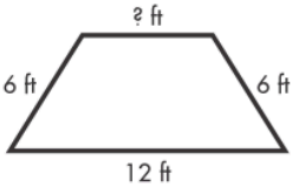
3. What shape does Drew's design appear to have? Explain.

_____

_____

_____

Drew's Design



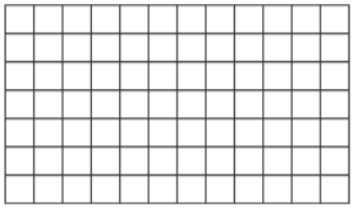
4. Which design will they choose? Explain.

_____

_____

_____

5. **Extension** Use the grid at the right to modify Keith's design so that it has a perimeter of at least 30 feet.



AAP Math Extension Activity 9

Name _____

Enrichment
11-2

Guess My Number

Identify each number using the clues provided.

1. I am thinking of a 2-digit number. Both of the number's digits are the same. When you double the number, the resulting product is greater than 50 and less than 80. What number am I thinking of?

2. I am thinking of a number greater than 20 and less than 50. When you divide the digit in the number's ones place by the digit in its tens place, the quotient is 4. What number am I thinking of?

3. I am thinking of a number less than 10. When this number is multiplied by 7, the digit in the ones place of the product is 1 more than the digit in the tens place. What number am I thinking of?

4. I am thinking of a 2-digit number. When you multiply the digit in this number's ones place by the digit in its tens place, the product is 14. The number is divisible by 2. What number am I thinking of?

5. I am thinking of a number. When you multiply this number by 3, the sum of the digits in the resulting product equals this number. What number am I thinking of?

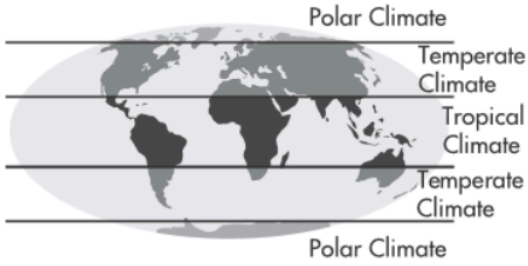
AAP Math Extension Activity 10

Name _____

enVision® STEM
Activity
5-3

It's Raining, It's Pouring

Did You Know? The tropical climate zone is located around the equator. Some areas in the tropical zone are arid, which means the climate is hot and dry. Other parts of the tropical zone have a combination of wet and dry seasons, but the temperature is always warm. The tropical zone is perhaps most well known for its hot, wet climate. Rainforests are found in these regions. In the rainforest it rains for part of the day, every day.



1. Use multiplication to complete the chart.

2. Write a multiplication equation to find how many inches of rain fall in 9 months if it rains 7 inches each month.

_____

Precipitation
time (in months)

inches per month	×	5	☐	7	☐
	☐ in.	10 in.	____ in.	____ in.	____ in.
	5 in.	____ in.	15 in.	____ in.	45 in.
	☐ in.	____ in.	____ in.	49 in.	63 in.

3. In 7 months there were 49 inches of rain. It rained the same amount every month. Write a multiplication equation to find how many inches it rained each month.

_____

4. Write two multiplication equations to show two different ways the total precipitation could be 35 inches if it rains the same amount each month.

_____

5. **Extension** Use the chart to write your own precipitation problem. Then write and solve the equation.

_____

_____

_____

AAP Math Extension Activity 11

Flexible Classroom Seating

Your teacher was just awarded $1,000 to spend on flexible seating for your classroom! She asked all 20 of her students in the class to help her decide how to spend the money. Think about which seats will be most popular and how many seats you need. You may choose up to 20 floor seats, at least 12 table seats, and there is only room for 5 seats in the Reading Center.

Part 1:

Use the Seat Choices Charts (2 pages) to:

- Write down the different seats and how many of each you would choose. Find the total for each category: Floor Seats, Seats for Tables, and Reading Center Seats.
- Find the total cost of all your choices. Did you have any money left over? If so, how much?

Part 2:

- Create a bar graph to represent how you would spend the money by category. Scale the vertical axis by $100. Label your graph.

Part 3:

- Use the chart for Part 3 to compare your choices with a partner on the chart.
- How much more or less did you choose to spend on each category than your partner? Show your work.
- How much more or less did you choose to spend in total than your partner? Show your work below.
- On the back of the paper: Find the total cost of all your choices. Did you have any money left over? If so, how much?

AAP Math Extension Activity 11

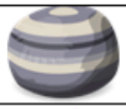
Flexible Classroom Seating: Part 1 Seat Choices (2 pages)

Your teacher was just awarded $1,000 to spend on flexible seating for your classroom! She asked all 20 of her students in the class to help her decide how to spend the money. Think about which seats will be most popular and how many seats you need. You may choose up to 20 floor seats, at least 12 table seats, and there is only room for 5 seats in the Reading Center. Use the Classroom Seat Choices Charts (2 pages) to:

- Write down the different seats and how many of each you would choose. Find the total for each category: Floor Seats, Seats for Tables, and Reading Center Seats. Use another sheet of paper (or the back of this one) if you need more work space.

Table Seats (Must have at least 12 from this category.)				
Type of Seat	**Picture**	**Price**	**Number purchased**	**Cost (Show your work)**
Stool		$75 each		
Covered Exercise Ball Chair		$120 each		
Cushioned Stool		$35 each		
Exercise Ball With Legs		$25 each		
Total Cost for Table Seats:				

AAP Math Extension Activity 11

Floor Seats (No more than 20 from this category.)				
Type of Seat	**Picture**	**Price**	**Number purchased**	**Cost (Show your work)**
Reading Pillow (Set of 2)		$20 each		
Bean Bag Chair		$39 each		
Floor Cushions (Set of 4)		$ 42 for four		
Floor Rocker (Set of 5)		$50 for five		
Total Cost for Floor Seats:				

Reading Center Seats (No more than 5 from this category.)				
Type of Seat	**Picture**	**Price**	**Number purchased**	**Cost (Show your work)**
Soft Reading Chair		$149 each		
Bungee Chair		$25 each		
Total Cost for Reading Center Seats:				

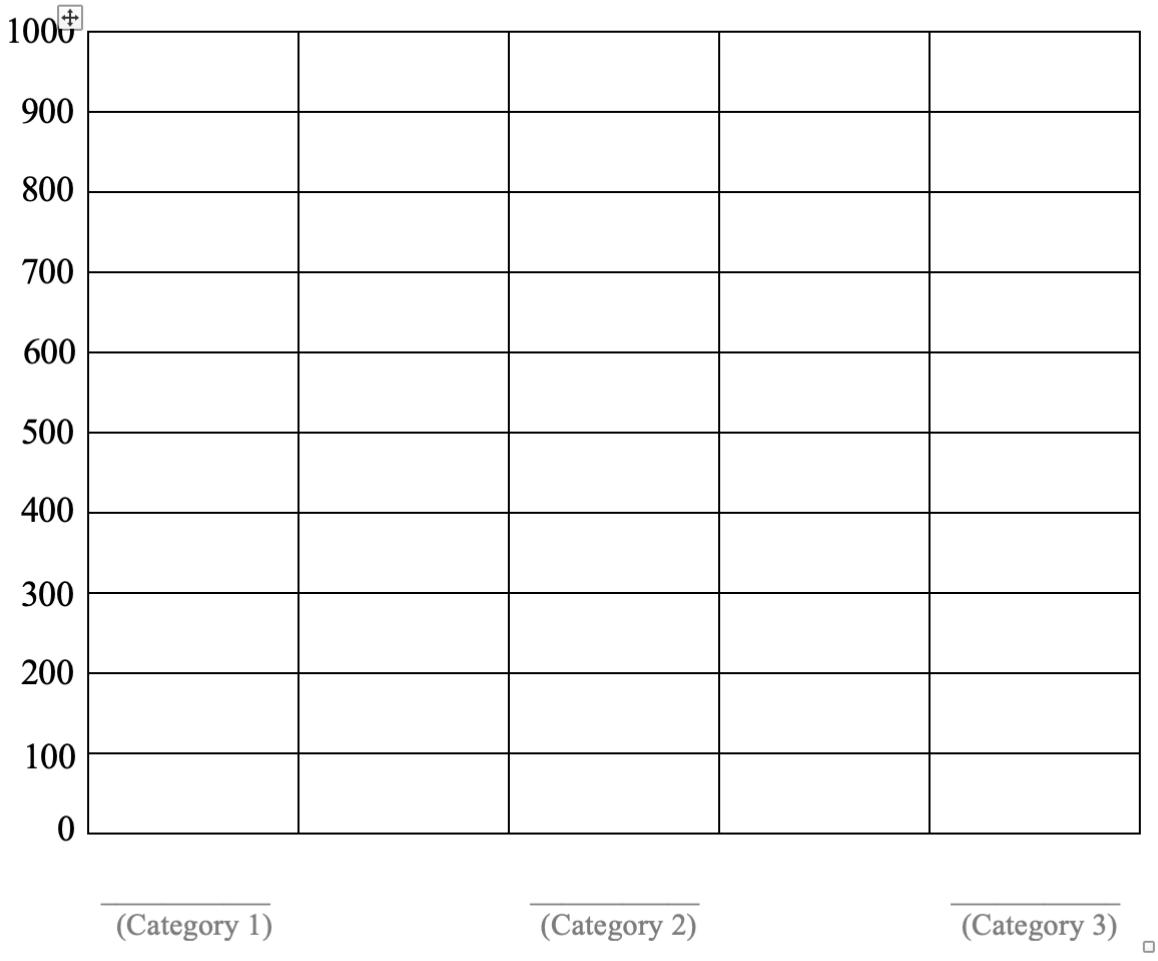
On the back of the paper: Find the total cost of all your choices. Did you have any money left over? If so, how much?

AAP Math Extension Activity 11

Flexible Classroom Seating: Part 2

Create a bar graph to represent how you would spend the money by category. Scale the vertical axis by $100. Label your graph.

Graph Title: _____



AAP Math Extension Activity 11

Flexible Classroom Seating: Part 3

- Use your bar graph from Part 2 to compare your choices with a partner on the chart.
- How much more or less did you choose to spend on each category than your partner? Show your work.
- How much more or less did you choose to spend in total than your partner? Show your work below.

I compared my choices with _____.				
	My cost	Partner's Cost	Difference (Show your work)	Who spent more?
Floor Seats				
Seats for Tables				
Reading Center Seats				

How much more or less did you choose to spend in total than your partner?

_____

Show your work below.

AAP Math Extension Activity 12

You are a famous alphabet collector in your home town. Your job is to collect the number of times certain alphabets (letters) appear in one household. To collect this information, you will need to collect the names of the persons living in your household. With this data, you are to investigate the frequency of letters appearing in your household. After collecting the data, you will create a line plot to represent the frequency of each letter. Answer the following questions about your data. Use notebook paper to complete this activity. Use first names only. Remember to use the resources and note page as a reference if needed.

Questions to answer:

1. What letter appeared more frequently?
2. What letter appeared less frequently?
3. What is the range of the letters?
4. What letters do you suppose occur most frequently in the English language? Why might that be?
5. Do you think consonants are used more than vowels or vowels more than consonants?

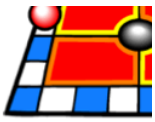
AAP Math Extension Activity 13

Geometry Choice Board

Student Directions: Show what you have learned from this unit. Pick one activity with an A, one activity with a B, and one activity with a C from the following activities to demonstrate what you have learned.

A Draw 5 shapes onto a piece of paper. Walk around your house for 10 minutes. Tally each shape that was seen. Create a bar graph or picture graph with this data. Remember to use a scale other than one to represent your data.	**A** Find a website or game online that gives information about quadrilaterals. Write a paragraph explaining what you can learn about quadrilaterals from the website.	**B** Survey your family members on a topic of your choice. Display the information using a bar graph and a picture graph. Remember to use a scale other than one to represent the data.
B Create a song, rap, or poem about shapes. Remember to use math vocabulary. Your lyrics must be appropriate and your own (an original).	**C** Pretend you are square. Write a letter to another quadrilateral (rectangle, rhombus, or parallelogram) telling her/him why you should be a part of his/her class. List specific likenesses/differences.	**A** Create a game for all of the shapes learned. Also include partitioning of the shapes in the game. Think of the cards needed, pieces and game board you want to use. Attach written instructions for how to play.
C Make a poster that shows shapes partitioned into equal areas of half, thirds, fourths, sixths, and eighths. Remember to show a variety of shapes and show the same shape partitioned in several ways.	**C** Find 15 items around the room and measure them to the nearest inch or ½ inch. Make a table and create a line plot showing your data.	**B** Design a power point presentation on Quadrilaterals. Use at least five vocabulary terms in your power point that you have learned through this unit. Include the definitions and pictures.

AAP Math Extension Activity 14

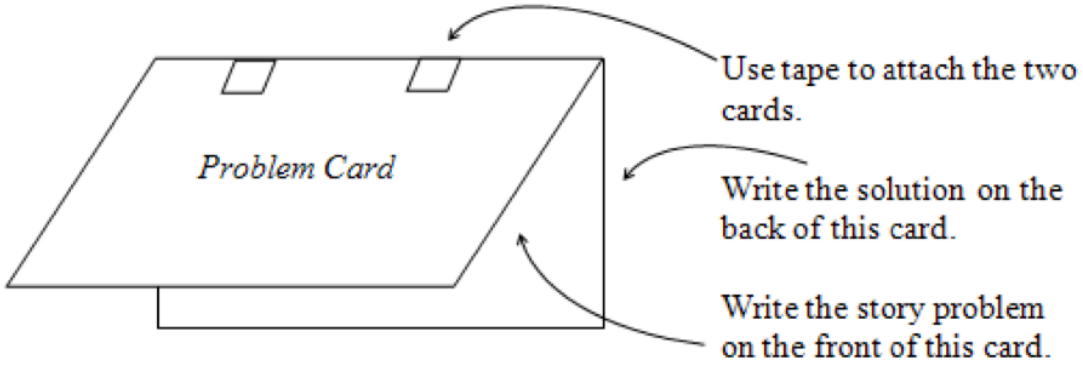


THE FRACTION STORY GAME

Your task is to create a fraction story game using what you learned about common fractions and decimal fractions. Use the fraction game board on "The Fraction Story Game, Game Board" student sheet to create a game that other students will want to play.

Directions:

- Look at the list of the standards that you studied in class. The problem cards you create must match the standard.
- You will need to make approximately 30 problem cards for your game. Most of the cards should be written in story problem form.
- Be sure you have some problem cards for each of the standards addressed in this unit. Make sure you use both fractions in your problem cards.
- Each problem card must have the correct answer on the back. Cover each problem card with a blank index card so players cannot see the problems before their turn. See sample below.



- Write the rules for your game.

Things to remember:

- You can only use common classroom materials.
- You may decorate your game board in a way that makes the game interesting and fun to play.
- Be sure to play your game with a partner to be sure it works.

AAP Math Extension Activity 14

The Fraction Story Game
Fraction Standards/I Cans

3.NSF.1

- I can read and write fractions.
- I can explain and show the meaning of the numerator and denominator.
- I can explain and represent unit fractions,
- I can explain and represent non unit fractions.
- I can represent fractions using a variety of manipulatives and explain how they are related.
- I can explain and represent that a fraction is part of a whole with an area, linear, or set model.
- I can place fractions on a number line that is divided into intervals.
- I can count in fractions.
- I can ask and answer questions about fractions.
- I can write a fraction as a whole and vice versa. (ie., $\frac{4}{4} = 1$)

3.NSF.2

- I can use models to show equivalent fractions.
- I can explain why fractions are equivalent.
- I can represent equivalence of fractions using area, set, and linear models.
- I can write a fraction as a whole number and a whole number as a fraction.
- I can compare fractions using **same** denominators or **same** numerators.
- I can partition a number line into equal intervals (parts) to represent fractions. I can show two fractions as equivalent (equal) if they are the same size.
- I can show two fractions as equivalent (equal) if they are on the same point on a number line.
- I can place fractions on a number line that is divided into equal intervals.

3.NSF.3

- I can count by unit fractions.
- I can identify a mixed number.
- I can identify an improper fraction.
- I can represent mixed numbers and improper fractions using a number line.
- I can create and represent fractions greater than one on a number line.

AAP Math Extension Activity 14

The Fraction Story Game

Game Board

Finish

Start

Problem Cards

AAP Math Extension Activity 15

What's the Story Here?

Your task is to make a book to demonstrate some things you have learned in third grade.

Your book will need 8 pages. Use the following directions to complete your book.

- Page 1 – title, author, publishing date
- Page 2 – addition story showing the commutative, associative, and identity properties
- Page 3 – addition story (multi-step) using three or four-digit numbers
- Page 4 – addition story showing rounding to the nearest ten
- Page 5 – subtraction story (multistep) showing take-away using three or four-digit numbers
- Page 6 – subtraction story showing comparison
- Page 7 – subtraction story showing rounding to the nearest hundred

Make sure each page contains the following:

- Use at least one two-digit and one three-digit number in each story
- Model each story with an illustration or base ten drawing
- Put the correct solution on the back of each page or in a separate answer key
- Show how you checked your work by using the inverse operation.

Make sure your book is clearly written, that your math stories are grammatically correct, and that you follow the steps above when making your book. Put page numbers on the bottom right hand corner of your book pages and if desired, decorate the title page.

Notes:

Notes: