

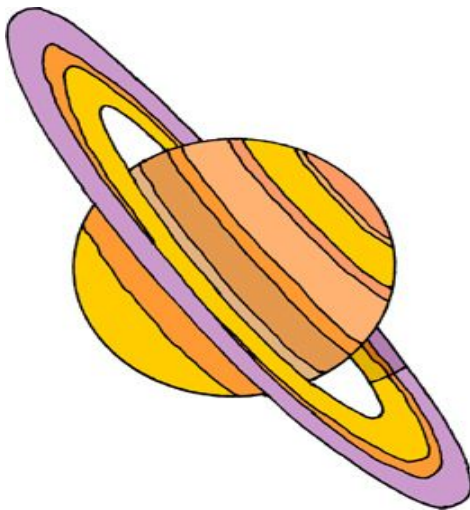
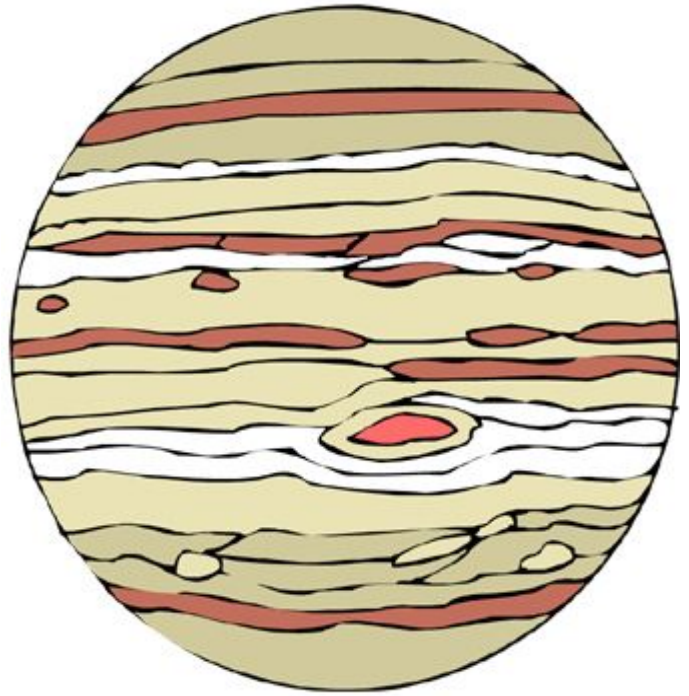
Name: _____

The Outer Solar System

by Leslie Cargile

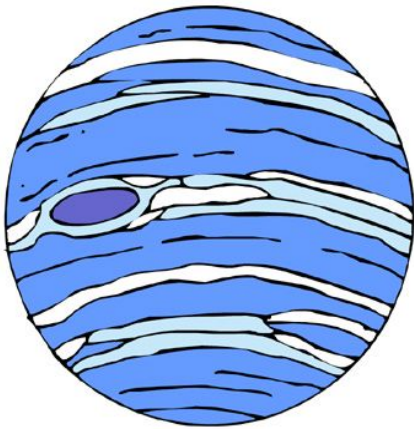
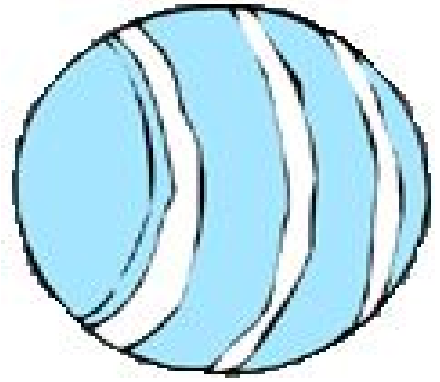
The outer solar system is the name of the planets beyond the asteroid belt. The planets in the outer solar system are called gas giants because they are made up of gas and ice. Other than the Sun, the gas giants contain ninety-nine percent of the mass in our whole solar system!

The first stop our tour of the outer solar system is the fifth planet, Jupiter. Next to the Sun, Jupiter is the second most massive object in our solar system. It's bigger than three hundred Earths! Made up of hydrogen and helium and a few other gasses, there are violent wind storms that circle around Jupiter. The most famous storm is called the Great Red Spot. It has been churning for more than four hundred years and scientists don't think it will be slowing down any time soon. Jupiter has its own system of moons. At last count Jupiter has sixty-three known moons and a faint ring around it too.



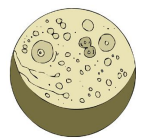
Next in our space neighborhood comes Saturn. It is the sixth planet from the Sun. Saturn is most well-known for the series of beautiful rings that circle it. They are made up of tiny bits of frozen dirt and ice. Like Jupiter, Saturn is made of mostly hydrogen and helium. It is smaller though, at only ninety-five times the size of Earth. Saturn has sixty two moons, the largest being Titan. Titan is the only moon in our solar system that has a dense atmosphere. It's also the only object in our solar system besides Earth to known have large amounts of liquid found on the surface.

Uranus is the seventh planet. The planet and its twenty seven moons orbit very far from the sun. In addition to helium and hydrogen, Uranus' atmosphere also contains ammonia ice, and methane ice. It is a very cold planet, with no internal heat source. One of the strangest things about Uranus is that it is tipped over and orbits the Sun on its side at a ninety-degree angle. The twenty seven moons it has orbit from top to bottom, instead of left to right like our Moon.



The eighth planet is Neptune. Like its neighbor Uranus; Neptune is made up of hydrogen, helium, ammonia ice and methane ice. Unlike Uranus, Neptune does have an inner heat source. It radiates twice as much heat as it receives from the sun. The most distinctive quality Neptune has is its color. If you look through a powerful enough telescope you can see the beautiful blue. Thirteen moons and very faint rings circle around Neptune. Because it is so far away, scientists haven't studied Neptune very much. Most of the information we know about it came from the Voyager 2 spacecraft passing close by in 1989.

Pluto is beyond Neptune and was considered a planet from its discovery in 1930. In 2006 Pluto was demoted and reclassified as a dwarf planet. Pluto exists in the Kuiper belt. That's just a fancy name for the band of rocks, dust, and ice that lay beyond the gas giants. Scientists have found objects bigger than Pluto in the Kuiper Belt.

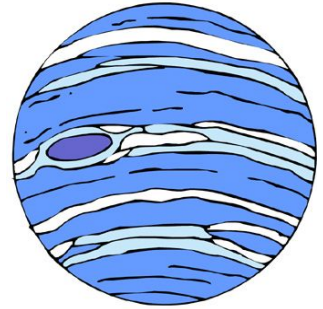


The outer solar system has many secrets to explore. What mysteries remain to be discovered in the gas giants and their many moons? Scientists think there may be liquid water on Jupiter's Europa. Perhaps life is growing underneath its icy layers. No one knows for sure, will you be the one to find out?

Name: _____

The Outer Planets

by Leslie Cargile



1. Which two gases make up most of Jupiter and Saturn?
_____ and _____
2. What substances make up Saturn's rings?
_____ and _____
3. What is the most massive object in our solar system? _____
4. How are Titan and Earth alike?
 - a. They both have life on them.
 - b. They both have lots of oxygen.
 - c. They both have large amounts of liquid on their surfaces.
 - d. They are both planets.
5. Neptune is further away from the sun than Uranus, yet Uranus is colder than Neptune. Explain how this can be possible.

6. What is the Kuiper Belt?
 - a. an area of rocks, dust, and ice that is between Jupiter and Saturn
 - b. an area of rocks, dust, and ice that is beyond Pluto
 - c. an area of rocks, dust, and ice that includes Pluto
 - d. an area of rocks, dust, and ice that surrounds Saturn's rings

Name: _____

The Inner Solar System

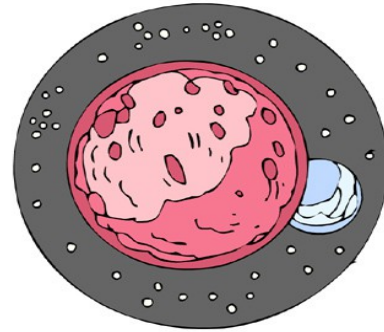
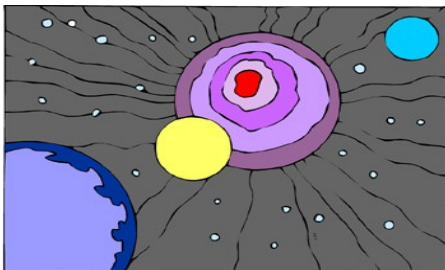
by Leslie Cargile

The inner solar system is the name of the terrestrial planets and asteroid belt. Terrestrial is just a fancy way of saying rocky. Like the Earth, terrestrial planets have a core of iron and rock.

At the center of the solar system is the Sun. The Sun is a big ball of hydrogen powered by nuclear reactions. Massive explosions are going on all of the time inside the Sun. It's what makes the light every day and keeps our planet warm. Light zips from the Sun to us in about eight minutes. The Sun is the most massive thing in our solar system. It is so big you could fit about a million Earths inside of it!

Closest to the Sun is the planet Mercury. You could squeeze about eighteen Mercury's inside of Earth. It is made of mostly rock, but it has a huge iron core and it generates a big magnetic field. Speedy little Mercury sails around the sun in only eighty-eight days. Mercury was the messenger of the gods in Roman mythology, known for his speed.

Second in line comes Venus, which is sometimes called Earth's twin. It's about the same size as Earth, but that's where the similarities end. Venus is always covered in thick clouds full of sulfuric acid. They whip around the planet at more than two hundred twenty mph. Violent winds shoot sand made of silicate around Venus's very dry, arid surface. The temperature averages nine hundred degrees, and the pressure's ninety times that on Earth. It takes two hundred and twenty four days to orbit the sun. Like Mercury, Venus was also named after a Roman Goddess, the Goddess of love.



You know what planet is next. You live on it! Yup, the Earth is number three. We have a rocky iron core at the center of our planet. We have liquid water, and our air is made of mostly nitrogen and oxygen. It takes three hundred and sixty-five days for us to circle the sun. We only have one moon.

Next to us in is Mars. Mars also has a core of rock and iron. It is a little more than half the size of Earth. The most distinct feature about Mars is its red color. Dust rich in iron oxide covers the planet. It's sort of like the planet is rusting. White caps at the poles are water, forever frozen because of the colder temperatures further from the Sun. The only place the temperature rises above freezing is at the equator, or the middle of the planet. Mars has two moons, Deimos and Phobos but they are much smaller than our own moon. It takes nearly twice as long for Mars to circle the sun at almost 684 days.

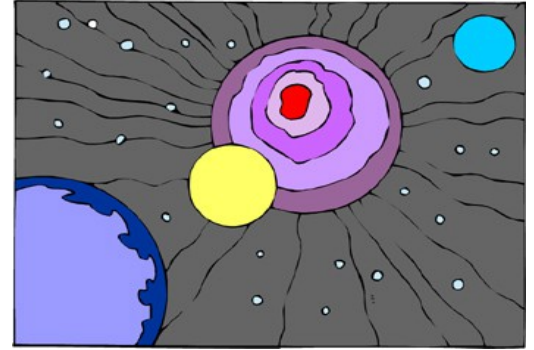
The last part of the inner solar system is called the Asteroid Belt. It's the line between the inner rocky planets and the outer gaseous planets. Unlike the rest of the Inner Solar System, the Asteroid Belt isn't a planet at all. It is a bunch of large rocky chunks, mostly meteoroids. There's also a dwarf planet named Ceres in the asteroid belt. The rest aren't very large.

The Earth is the only planet that we know of with life on it, but universe is a big place. Much of our solar system is still a mystery, there is still plenty to explore.

Name: _____

The Inner Planets

by Leslie Cargile



1. How does the size of Mercury compare to Earth?
 - a. Mercury is 18 times the size of Earth
 - b. Mercury is $\frac{1}{18}$ the size of Earth.
 - c. Earth is $\frac{1}{18}$ the size of Mercury.
 - d. Earth is 18 times smaller than Mercury.
2. Which statement about the inner planets' orbits is true?
 - a. Venus orbits the sun more quickly than Mercury.
 - b. Mercury orbits the sun more slowly than Mars.
 - c. Earth orbits the sun more quickly than Venus.
 - d. Mars orbits the sun more slowly than Earth.
3. What two types of gas make up most of Earth's atmosphere?
_____ and _____
4. According to information in the article, where would you find water on Mars?

5. How long does it take light to travel from the sun to the Earth?

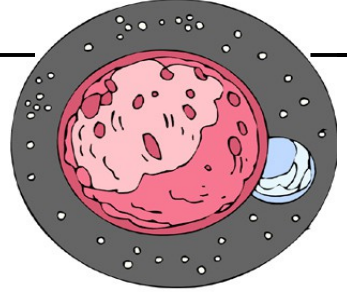
6. Which would be the most appropriate nickname for Venus?
 - a. the cold desert planet
 - b. the first inner planet
 - c. the windy planet
 - d. the triple mooned planet

Now Try This: Make a Venn diagram to compare and contrast Earth and Venus.

Name: _____

The Inner Planets

Vocabulary Activity



Fill in the missing letters to create a word from the article.

Then, write the full word on the line. Be sure you spell each word correctly.

1. _ i _ _ _ _ r _ _ _ e _

clue: likenesses

1. _____

2. _ _ _ a _ _ r

clue: an imaginary line around the center of a planet

2. _____

3. _ a _ e _ u _

clue: made of gas

3. _____

4. _ r i _

clue: lacking water or rainfall

4. _____

5. _ e _ _ _ s _ _ _ a _

clue: rocky

5. _____

6. _ _ _ r _ _ e _

clue: most abundant gas on Earth

6. _____

7. _ a _ _ i _ e

clue: containing a lot of mass; large

7. _____

Name: _____

Quotation Marks for Titles

Use quotation marks around the titles of short stories, songs, and poems.

examples:

"The Law of the Jungle" is my favorite poem by Rudyard Kipling.

Maria and Chris were singing "Let It Go!"

"George's Pirate Ship Adventure" is the title of my short story.

Rewrite each sentence. Add quotation marks where they are needed.

1. I Know Why the Caged Bird Sings is a famous poem by Maya Angelou.

2. Judy Garland sang Somewhere Over the Rainbow.

3. We read a short story titled, The Gift of the Magi.

4. We all sang Happy Birthday to my brother.

5. Jabberwocky is a poem filled with nonsense words.

Name: _____

Quotation Marks for Dialogue

Use quotation marks around the exact words someone says when they are speaking.

If the dialogue tag comes at the beginning of the sentence, include a comma before the quotation.

example: Avery said, "Look at that giant tree."

If the dialogue tag comes at the end of the sentence, use a comma instead of a period to end the quotation.

example: "I am very tired right now," William said as he yawned.



Rewrite each sentence. Add quotation marks and commas where they are needed.

1. I can't find my keys anywhere Owen whined.

2. Diego yelled I'm on my way down.

3. I am sorry I broke your lamp Kris mumbled.

4. Isabella said This is the best book I've ever read.

Writing Basic Dialogue

5. I have been working all day Lucas complained.

6. You did a great job of cleaning your room Naomi said.

7. You even washed the windows Cédric said

8. It's almost time to eat lunch said Camilla.

9. I'm very hungry Sam replied.

10. Please come with me to the beach Jamal begged.

Name: _____

Persuasive Writing

School Uniforms

Do you agree or disagree with the statement below?

Students should be required to wear uniforms to school.

State your opinion and use details to support your point of view.



Name: _____

Page _____

School Uniforms

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Name: _____

School Uniforms

Draw a picture to go supplement your persuasive essay.

Name: _____

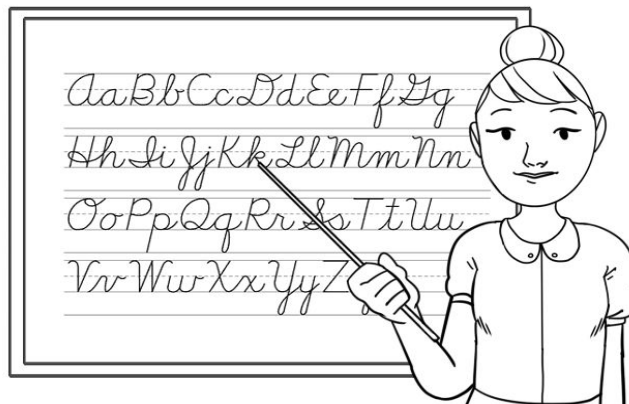
Persuasive Writing

Cursive Handwriting

Do you agree or disagree with the statement below?

It is important for all students to learn and use proper cursive handwriting.

State your opinion and use details to support your point of view.



Name: _____

Page _____

Cursive Handwriting

[illegible]

Name: _____

Cursive Handwriting

Draw a picture to supplement your persuasive essay.

Name: _____

Opinion Reading Comprehension Response

Cell Phones Should Be Banned in Schools

All cell phones should be banned in schools during the regular school day. Cell phones are a distraction to students, their classmates, and their teachers. Cell phones are a distraction because they prevent students from paying attention in class when they are being used. Students who are texting in class, or otherwise using their cell phones to play games, are missing valuable instruction from the teacher in the form of class notes, the introduction of new ideas and concepts, and live demonstrations and examples of new topics. Students who use their cell phones regularly in class generally have lower grades than their classmates who do not use cell phones during the school day. Finally, cell phone use during the school day is a sign of disrespect toward teachers and classmates because it is an unwanted distraction. Other students may feel the need to use their own cell phones, and teachers will realize that their instruction is not being received by their cell phone-using students. Therefore, students should not be allowed to use their cell phones in school during the regular school day.

Do you agree or disagree with the author who wrote the essay above? Write your opinion, followed by 3 or 4 sentences to show why you agree or disagree. Refer to specific points in the passage.

Name: _____

Rounding to the Nearest Dollar

Round each money amount to the nearest dollar.

a. \$6.32 _____

i. \$0.55 _____

b. \$5.78 _____

j. \$0.02 _____

c. \$8.99 _____

k. \$9.18 _____

d. \$15.49 _____

l. \$3.44 _____

e. \$7.10 _____

m. \$1.09 _____

f. \$9.53 _____

n. \$18.47 _____

g. \$27.61 _____

o. \$0.82 _____

h. \$2.60 _____

p. \$4.50 _____

Larry sees a toy truck that costs \$6.82. He says, "The truck is about \$6.00."
Is Larry correct? Explain.

Explain why \$3.50 rounds up to \$4.00

Explain why \$2.35 rounds down to \$2.00

Name: _____

Probability

The marbles pictured below are gray, white, and black. They are placed in a bag and one is drawn at random.



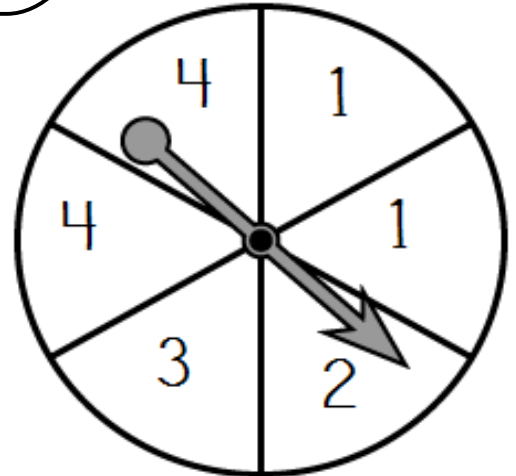
1. Which color marble is least likely to be drawn from the bag? _____
2. What is the probability of drawing the black marble from the bag? _____
3. What is the probability of drawing a gray marble? _____
4. What is the probability of the drawing a white marble? _____
5. What is the probability of drawing a marble that is not white? _____
6. Would you be more likely to draw a marble that is not black or a marble that is not gray?
Explain your answer.

7. If three more black marbles were added to the bag,
what would be the probability of drawing a black marble? _____

Name: _____

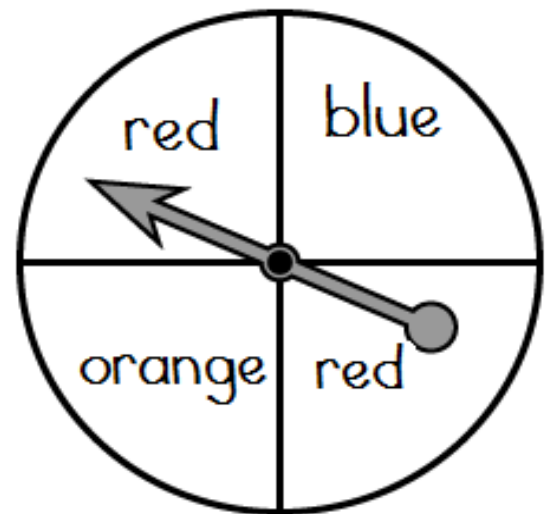
Probability

1. What is the probability of the spinner landing on a 3? _____
2. What is the probability of the spinner landing on a 1? _____
3. What is the probability of the spinner landing on a 2? _____



4. Are you more likely to spin an odd number or an even number? Explain.

5. What is the probability of the spinner landing on red? _____
6. What is the probability of the spinner landing on orange? _____
7. What is the probability of the spinner landing on a primary color? _____



8. Mike said, "You have a fifty-fifty chance of spinning red." Explain what he means.

Name: _____

Multiple-Step Math Questions



- a. Grace started her own landscaping business. She charges \$6 an hour for mowing lawns and \$11 per hour for pulling weeds. In September she mowed lawns for 63 hours and pulled weeds for 9 hours. How much money did she earn in September?

Show your work.

answer: _____

- b. Harvey wants to buy a gift for his father that costs \$35.92 and a gift for his sister that costs \$52.08. He has saved \$16.28. How much more does he need to save in order to buy the gifts?

Show your work.

answer: _____

- c. On Monday, there was no snow on the ground in Buffalo, New York. On Tuesday, three inches of snow fell. On Wednesday, a half an inch of snow melted. On Thursday, two and a half more inches fell. On Friday, another inch and a half melted. How much snow was left on the ground Friday night?

Show your work and label your answer.

answer: _____

- d. Faith had \$100. She went to the grocery store and bought three gallons of ice cream for \$7.29 each. Then she went to the farmer's market and bought two dozen ears of corn for \$5/dozen. How much money did Faith have left?

Show your work.

answer: _____

Name: _____

Long Division with 4-Digit Dividends

A Cat's Breakfast

Divide to find the quotients. Then solve the riddle by matching the letters to the blank lines at the bottom of the page.

C

$$4 \overline{) 3,678}$$

I

$$7 \overline{) 4,983}$$

S

$$3 \overline{) 1,165}$$

M

$$3 \overline{) 2,214}$$

E

$$8 \overline{) 2,488}$$

S

$$5 \overline{) 2,595}$$

I

$$6 \overline{) 3,675}$$

P

$$8 \overline{) 6,499}$$

R

$$5 \overline{) 3,182}$$

I

$$6 \overline{) 2,562}$$

C

$$8 \overline{) 2,760}$$

E

$$5 \overline{) 2,674}$$

What do cats eat for breakfast?

738

612r3

919r2

534r4

345

636r2

427

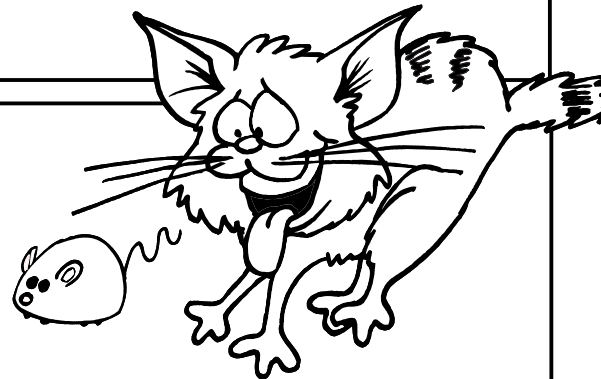
388r1

812r3

711r6

311

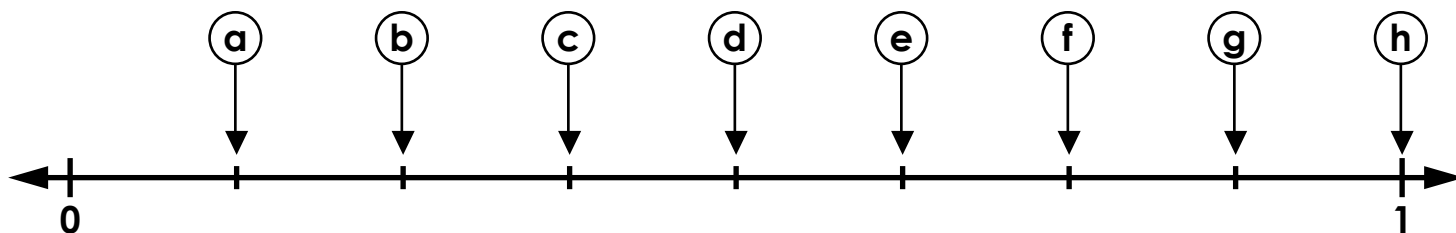
519



Name: _____

Fractions Number Line

Write the correct letter on the blank line next to each fraction.



$\frac{1}{2}$ d

$\frac{7}{8}$ _____

$\frac{1}{4}$ _____

$\frac{8}{8}$ _____

$\frac{5}{8}$ _____

$\frac{3}{4}$ _____

$\frac{1}{8}$ _____

$\frac{3}{8}$ _____

Compare the fractions using $<$, $>$, and $=$.

$\frac{3}{8} > \frac{1}{4}$

$\frac{4}{8} \bigcirc \frac{1}{2}$

$\frac{5}{8} \bigcirc \frac{3}{4}$

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

$\frac{7}{8} \bigcirc \frac{1}{4}$

$\frac{1}{4} \bigcirc \frac{2}{8}$

$\frac{1}{4} \bigcirc \frac{7}{8}$

$\frac{8}{8} \bigcirc 1$

$\frac{1}{2} \bigcirc \frac{6}{8}$

Mrs. Browning asked her class to help with safety patrol. $\frac{4}{8}$ of the class went with her to help younger students onto the buses. Mr. Tobias took $\frac{1}{2}$ of the class to help students at the crosswalk. Compare the fractions of the class that went with each teacher using $<$, $>$, or $=$.

Mrs. Browning $\frac{4}{8} \bigcirc \frac{1}{2}$ **Mr. Tobias**

Name: _____

Feet and Inches

Memorize this: There are 12 inches in a foot.



Complete the table. Then, use the table to answer the questions below.

1 foot	2 feet	3 feet	4 feet	5 feet
12 inches				

- Which is longer: 2 feet or 28 inches? _____
- Which is less: 4 feet or 40 inches? _____
- How many inches are in 5 feet? _____
- James is five feet tall. Caroline is 53 inches tall. Who is taller? _____
- Marley caught a fish that was two feet three inches long. How many inches long was her fish? _____
- Arnold is four feet, six inches tall. How many inches tall is Arnold? _____
- Peter measured the width of his refrigerator. It was 32 inches wide. Is the fridge more or less than three feet wide? _____

Name: _____

Division: 2-Digit Divisors

Division

Rewrite each problem and solve.

a. $245 \div 30 =$ _____

b. $493 \div 70 =$ _____

c. $140 \div 23 =$ _____

d. $163 \div 18 =$ _____

e. $526 \div 40 =$ _____

f. $460 \div 91 =$ _____

g. $623 \div 20 =$ _____

h. $760 \div 84 =$ _____

i. $357 \div 25 =$ _____

j. $998 \div 71 =$ _____

k. $295 \div 16 =$ _____

l. $860 \div 34 =$ _____

Name: _____

Long Division

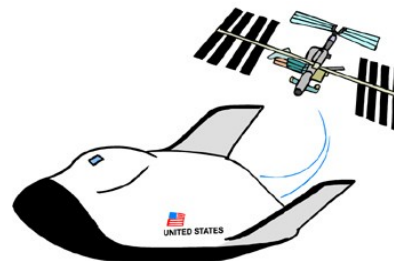
4-Digit Dividends, 3 and 4-Digit Quotients, Remainders

a.

$$5 \overline{) 3,678}$$

b.

$$3 \overline{) 2,127}$$



c.

$$6 \overline{) 2,750}$$

d.

$$3 \overline{) 3,335}$$

e.

$$4 \overline{) 2,209}$$

f.

$$2 \overline{) 6,138}$$

g.

$$7 \overline{) 1,626}$$

h.

$$9 \overline{) 1,093}$$

i.

Astronauts on the space station have 1,320 pounds of food. The next food delivery is five days away. How many pounds of food can the astronauts eat per day?

Show your work and label your answer.

answer: _____

Name: _____

Multiplication: 2-digit by 2-digit

Multiplication

a.

$$\begin{array}{r} 68 \\ \times 92 \\ \hline \end{array}$$



b.

$$\begin{array}{r} 71 \\ \times 33 \\ \hline \end{array}$$

c.

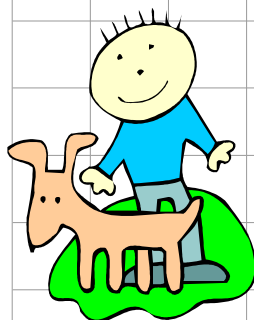
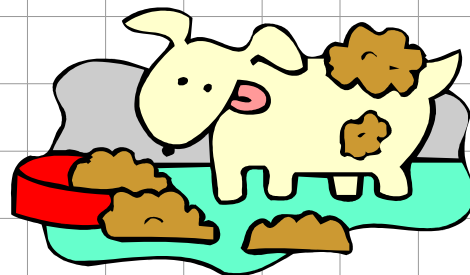
$$\begin{array}{r} 98 \\ \times 93 \\ \hline \end{array}$$

d.

$$\begin{array}{r} 50 \\ \times 12 \\ \hline \end{array}$$

e.

$$\begin{array}{r} 64 \\ \times 47 \\ \hline \end{array}$$



f.

$$\begin{array}{r} 45 \\ \times 38 \\ \hline \end{array}$$

g.

$$\begin{array}{r} 80 \\ \times 80 \\ \hline \end{array}$$

h.

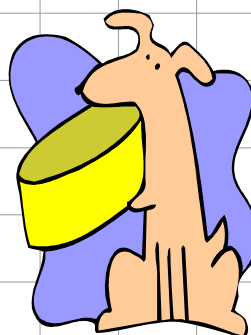
$$\begin{array}{r} 79 \\ \times 23 \\ \hline \end{array}$$

i.

$$\begin{array}{r} 87 \\ \times 76 \\ \hline \end{array}$$

j.

$$\begin{array}{r} 30 \\ \times 18 \\ \hline \end{array}$$



k.

$$\begin{array}{r} 51 \\ \times 49 \\ \hline \end{array}$$

Name: _____

Counting by Quarters

Count by quarters. Fill in the empty boxes.

a.

0	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$				
----------	---------------	---------------	---------------	----------	----------------	--	--	--	--

b.

$7\frac{1}{4}$	$7\frac{1}{2}$				$8\frac{1}{2}$				
----------------	----------------	--	--	--	----------------	--	--	--	--

c.

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

d.

6									$8\frac{1}{4}$
----------	--	--	--	--	--	--	--	--	----------------

e.

$14\frac{3}{4}$		$15\frac{1}{4}$					
-----------------	--	-----------------	--	--	--	--	--

f.

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

g.

		$9\frac{3}{4}$	10						
--	--	----------------	-----------	--	--	--	--	--	--

h.

		$25\frac{1}{2}$			$26\frac{1}{4}$	
--	--	-----------------	--	--	-----------------	--

i.

								$9\frac{1}{4}$	$9\frac{1}{2}$
--	--	--	--	--	--	--	--	----------------	----------------

j.

			30	$30\frac{1}{4}$		
--	--	--	-----------	-----------------	--	--

Name: _____

The Liberty Bell

The Liberty Bell, located in Pennsylvania, changed the world on July 8, 1776. It rang out from the tower of Independence Hall. It was used to summon the citizens to hear the first reading of the Declaration of Independence by Colonel John Nixon. In the 1800s, the Liberty Bell became a symbol for ending slavery in America.



The Liberty Bell is famous for its large crack. People don't know when the crack first appeared on the bell. The crack got worse over time and people didn't want the bell to break apart. In order to preserve it, it was decided that the Liberty Bell should never again be used. The last time the bell was rung was on George Washington's birthday in 1842.

.....

1. Why was the Liberty Bell rung on July 8, 1776?

2. What is the name of the structure in which the bell is located?

3. In the 1800s, what did the Liberty Bell symbolize?

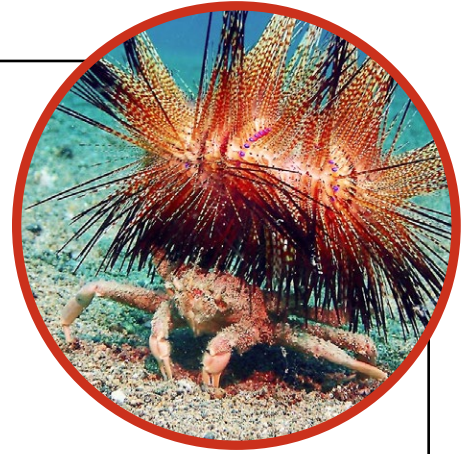
4. Why isn't the bell rung any more?

5. What does the word *summon* mean?

Name: _____

Taxi Crab

By Lill Pluta



When Urchin rides a taxi crab,
that crab is anything but drab
since Urchin sports sharp spiky spines.
Crab for lunch? Great White declines.

While Urchin keeps their foes at bay,
he and Crab scoot far away
to find a safer feeding ground
where snacks for both are all around.

One protects. The other carries.
They are pals not adversaries.



Name: _____

Taxi Crab

By Lill Pluta



1. In the poem, a Great White shark chooses not to eat the crab. Why?

- a. The crab has sharp spines.
- b. There is a sea urchin on the crab.
- c. The shark can't grab the crab.
- d. The sea urchin will attach itself to the shark's fins.

2. How does the crab help the sea urchin?

3. How does the sea urchin help the crab?

4. Reread the last line of the poem.

They are pals not adversaries.

Are the underlined words synonyms, antonyms, or homophones? _____

5. The crab and the sea urchin have a symbiotic relationship. What does this mean?

- a. The crab and the sea urchin help each other survive.
- b. The crab and the sea urchin compete against each other.
- c. The crab and the sea urchin communicate with each other.
- d. The crab and the sea urchin are both prey to the same animals.

Name: _____

Taxi Crab

By Lill Pluta



The words below are scrambled. Unscramble each word and write it on the line. Check back in the story to make sure each word is spelled correctly.

1.

n c u
r h i

clue: marine animal with a shell covered in spikes

2.

r b
a d

clue: dull; not exciting

3.

c e e i
d n l s

clue: politely refuses

4.

t o s
c o s

clue: moves quickly

5.

e s
o f

clue: enemies

6.

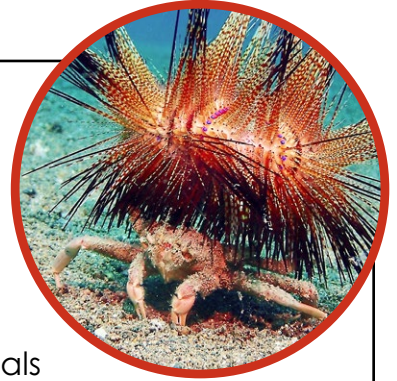
s l
p a

clue: friends

Name: _____

Taxi Crab

By Lill Pluta



In the poem "Taxi Crab" by Lill Pluta, you learned about two animals that have a symbiotic relationship.

With a teacher or parent, use the Internet to search for two other animals that have a symbiotic relationship. Tell what the animals are and how they help each other.

[illegible]

Name: _____

Now That's Gross!

By Belinda Vickers Givens

Have you ever heard your mom say, "Close the door so flies don't get in!"? Or maybe she's said, "Please fan those flies!" If you have ever been warned to keep the flies away, there is a very good reason to heed those warnings.

There are more than 100,000 different species of flies, but the most common is the housefly. These small pesky insects can live and thrive in any habitat where humans survive, which means they are present on every continent on Earth. Although houseflies have a very short lifespan, averaging only about a month, their rapid rate of reproduction ensures that they will be around for a very long time.

Flies are considered pests, not only due to the characteristic buzzing sounds that they make, but primarily because they spread numerous diseases. Houseflies have been known to carry a wide range of dangerous pathogens including viruses, bacteria, fungi, and more. These harmful pathogens are transmitted rapidly by flies as they land on contaminated garbage, manure, and other sources of waste and then land on food that will be consumed by humans. Houseflies have been linked to severe cases of food poisoning, diarrhea, typhoid fever, tuberculosis, and parasitic worms to name just a few.



Houseflies are generally gray or black in color with a single pair of wings. They have very prominent red eyes that have thousands of individual lenses, which allows them to see at a wider angle. The female housefly is larger than the male and can lay 100 tiny eggs at a time. These



eggs hatch after only twelve to twenty-four hours into larvae known as maggots. Maggots are small, white, legless creatures with a worm-like appearance. They thrive on rotting food, decomposing animal carcasses, and waste. The larvae stage lasts for approximately two to five days before the maggots transform into reddish-brown pupas.

Houseflies do not have teeth or stingers, and therefore do not bite. They do have very long tongues that they use to suck up their food, very similar to a straw. In order to feed on solid food sources, they must liquify them first. When a housefly lands on your food, it vomits on the food to release an acid that dissolves the food. This allows the fly to suck the food up with its tongue – now that's gross! So please be sure to listen to your mom the next time she frantically says, "Don't let those flies land on your food!"

About the Author



Belinda Givens is an ASHA certified Speech Language Pathologist with an endorsement in Reading. She is a published children's book author and her passion is language and literacy. She is the mother of three amazing young boys who inspire her in incredible ways. You may enjoy reading Belinda's books, The Adventures of Demdem the Garbage Truck - Watch Out for the Bumps and I Am Blessed to Have You.

Name: _____

Now That's Gross!

By Belinda Vickers Givens



1. According to the information in the article, why are there so many flies on our planet if each fly only lives for about one month on average?

2. Complete the flow chart below to show how flies can spread diseases.

A housefly lands on contaminated garbage, manure, or other waste.





3. Based on the information you learned in the article, identify the four stages in a housefly's life cycle.

1. _____

2. _____

3. _____

4. _____

Name: _____

Now That's Gross!

By Belinda Vickers Givens

The following terms are vocabulary words from the article.
Match the vocabulary word with its correct definition by writing the corresponding letter on the line.



- | | |
|---------------------------|--|
| 1. _____ liquify | a. bacteria, viruses, or other microorganisms that can cause disease |
| 2. _____ prominent | b. made impure by added pollutants |
| 3. _____ frantically | c. passed on from one person or place to the next |
| 4. _____ pathogens | d. turn into liquid |
| 5. _____ decomposing | e. replicating more of something |
| 6. _____ transmitted | f. extreme |
| 7. _____ contaminated | g. the length of time an animal or insect lives |
| 8. _____ severe | h. protruding; bulging; standing out |
| 9. _____ reproduction | i. decaying or rotting |
| 10. _____ lifespan | j. in a distressed way; anxiously |

Name: _____

Now That's Gross!

By Belinda Vickers Givens

In the article, "Now That's Gross!" you learned why many people consider houseflies to be pests. Namely, in addition to their irritating buzzing sound, they are capable of spreading diseases by contaminating food with harmful pathogens.



On the lines below, answer the following question: Do you think if there were no flies on Earth, this would be better for our planet, or worse? Explain your answer. Carefully consider the information you learned in the article, as well as your knowledge of ecosystems and the environment when you share your opinion.

[illegible]

Name: _____

Great Minds: Martin Luther King Jr.

by Lydia Lukidis

You probably know about Martin Luther King Jr. He was a civil rights activist. And he made that famous "I Have a Dream" speech. But he did so much more than that. Let's take a closer look at his life and what he accomplished.



King was born in 1929 in Atlanta. His father was a preacher and his mother was a teacher. He had an older sister and a younger brother. When he was in high school, he was so smart that he skipped two grades. He went to Morehouse College when he was only 15 years old, and got a degree in sociology. He was inspired by his father and later got a divinity degree. After that, he went to Boston University and got his doctor's degree in theology. This is why people call him Dr. King.

When he was younger, he experienced racism. He also saw racism against the African American community in general. Segregation was part of life at that time. That's when different races were kept separate and not given the same rights. For example, African Americans weren't given the same chances when it came to education, jobs, or transportation. Segregation was part of the law in the American South and other places in the United States at that time.

King wanted to do something about this. He wanted to make the world a better place. So he fought for equal rights for African Americans. This is what the civil rights movement was all about. He was an activist during the 1950s and 1960s. He wanted people to understand what was going on and that it was not fair. He also wanted to change the laws. He led many peaceful protests to create this change. He was not only the leader of the civil rights movement, but he also helped start it.

One of his first protests was the Montgomery Bus Boycott. (You might remember that during this

time Rosa Parks had refused to give up her seat to a white man when she was on a bus. She was arrested on the spot.)

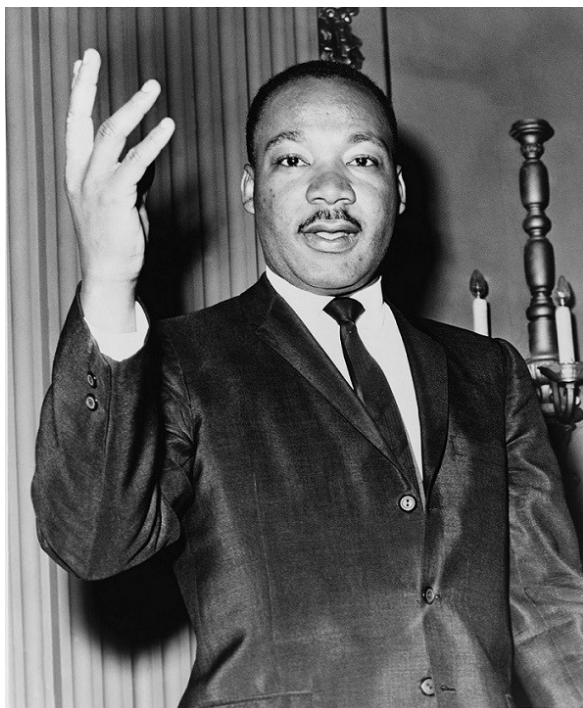
King fought against the public transportation system in Montgomery.

The protest lasted 382 days. It was not an easy battle. King was arrested and his house was bombed. But in the end, King was happy to see that segregation on

Montgomery buses ended. African Americans could sit wherever they wanted.

“ I have a dream that one day this nation will rise up, live out the true meaning of its creed:
‘We hold these truths to be self-evident, that all men are created equal.’ ”

– Martin Luther King Jr.



King continued to fight for equality. In 1963, he helped organize the "March on Washington." He wanted to help end segregation in public schools, end discrimination in jobs, and protect the African Americans from police abuse. Over 250,000 people joined the march. That's when King gave his famous "I Have a Dream" speech. The speech was very powerful. And the march was successful. A year later, the Civil Rights Act was passed and African Americans were given their rights.

King never backed down in his fight for justice, even when his life was in danger. And he didn't just fight for African Americans. He fought for equality for everyone. He fought for people of different religions. He also fought for

people who had less money. It didn't seem fair to him that people were mistreated just for being who they were. In 1953, King met and married Coretta Scott King. She was also passionate about fighting for equality. Together, they had 4 children.

King was killed in 1968. But his legacy will live on forever. His speeches still inspire us today, and he is still seen as one of the best public speakers. He traveled more than six million miles and gave speeches more than 2,500 times. He was the youngest person to ever win the Nobel Peace Prize. Martin Luther King Jr. Day was even created in his honor. He became the only non-president to have a national holiday in remembrance of him.

Name: _____

Great Minds: Martin Luther King Jr.

by Lydia Lukidis



1. According to the article, Martin Luther King Jr. had a doctorate degree in which field of study?

- a. civil rights activism
- b. medicine
- c. sociology
- d. theology

2. Based on the information in the article, Martin Luther King Jr. was the youngest person to do what?

- a. attend Boston University
- b. get arrested for peaceful protesting
- c. win the Nobel Peace Prize
- d. give a speech at the White House

3. What was the Montgomery Bus Boycott and what did it help accomplish?

4. What did the 1963 March on Washington help to accomplish?

5. According to the article, which of the following approaches did Martin Luther King Jr. use to advocate for civil rights?

- a. intimidation
- b. violence
- c. bullying
- d. peaceful protests

Name: _____

Great Minds: Martin Luther King Jr.

by Lydia Lukidis



The following terms are vocabulary words from the article. Match the vocabulary word with its correct definition by writing the corresponding letter on the line.

- | | |
|---------------------------|--|
| 1. _____ activist | a. the opportunity for everyone to have the same rights, opportunities, and treatment |
| 2. _____ sociology | b. taken into custody by police or other legal authorities |
| 3. _____ racism | c. the rights of citizens to social and political freedom |
| 4. _____ boycott | d. having strong feelings or beliefs about something |
| 5. _____ equality | e. the study of human society |
| 6. _____ segregation | f. poor treatment of someone based on the belief that their race is inferior to one's own race |
| 7. _____ civil rights | g. the act of commemorating or remembering someone or something |
| 8. _____ remembrance | h. a refusal to participate in an event or policy in order to protest against it |
| 9. _____ passionate | i. a person who campaigns for social or political change |
| 10. _____ arrested | j. the enforced separation of people from different racial groups |

Name: _____

Great Minds: Martin Luther King Jr.

by Lydia Lukidis

In the article, "Great Minds: Martin Luther King Jr.," you learned that Martin Luther King Jr. gave speeches more than 2,500 times during the civil rights movement. He is remembered for his powerful, inspiring words.



Using the Internet, with the permission of an adult, choose a quote from Martin Luther King Jr. Write the quote on the lines below, and then describe what it means to you.

Quote I chose: _____

What it means to me: _____

Name: _____

Great Minds: Helen Keller

by Lydia Lukidis

Imagine what life would be like if you weren't able to see or hear. Everything would be dark and silent, all the time. Helen Keller never had to imagine it, because she lived it. She was born on June 27, 1880 in Alabama. She was very healthy and had no medical problems. Her father worked for a newspaper and her mother stayed home to take care of her. She grew up on the family's large farm.

But when Helen was 1½ years old, something unexpected happened and she got very sick. For about a week, she had a terrible fever and headache. Doctors suspected she contracted scarlet fever or meningitis. She survived, but she lost her sight and hearing at the same time. Her parents were shocked.



Helen Keller, ~1904. She was around 24 years old.

As Helen grew up, she tried to communicate with her family and friends. It was sometimes frustrating for her because it was hard to let others know what she needed. At times, she would get angry and throw tantrums. Helen quickly realized she was different, and her parents recognized she needed help.

They called the Perkins Institute for the Blind in Boston to get advice. The director said Annie Sullivan might be able to help. Annie used to attend the school when she was blind, but she got a special surgery when she was 15 and was able to see. Since she understood what it's like to be blind, people thought she could really help Helen. Little did anybody know that they were about to form a 50 year friendship and special bond.

Now imagine how hard it would be to learn words when you're blind and deaf. Annie began to teach Helen words, and she had some special tricks. For example, let's say she wanted to teach her the word, cup. She would place a cup in one of Helen's hands and she would press the letters C-U-P in the other hand.

Helen started learning some words this way. It was not easy and things didn't really click just yet.

Helen would get very frustrated and even once knocked out one of Annie's teeth during a lesson. But then one day, Helen really started to grasp it. Annie put Helen's hand in water, then spelled out W-A-T-E-R in her other hand. Helen finally understood how the process worked. It was a big day for her, and she learned many words after that.

The next challenge was learning how to read. Annie taught Helen how to read Braille. Braille is a specific reading system for blind people, and the letters are made out of little bumps on a page that you can touch. Helen caught on fast and was able to read entire books and use a typewriter by the age of 10. She was determined to persevere.

At that point, Helen was ready to learn how to speak, and Sarah Fuller helped her with this. Sarah was a teacher for the deaf. She knew certain techniques that would help. As she spoke, Helen would place her hand on Sarah's lips. Instead of hearing the sound, she felt the sound vibrations and felt how the lips moved to make certain sounds. Helen herself started saying a few letters and sounds. She was ecstatic. This was the first time in her life she was able to do that! Eventually, she learned complete words. And with hard work and determination, she was able to say full sentences.

When Helen was 16 years old, she went to Radcliffe College for women in Massachusetts. This was her first time in a public school. Annie went to class with her to help her. Helen did really well in

“The best and most beautiful things in the world cannot be seen or even touched. They must be felt with the heart.”

– Helen Keller

school and graduated with honors. She then went on to college and wrote articles and books about her unique experiences.

Helen Keller is a great example of someone who was always determined and never let obstacles get in her way. She took the challenges life presented her and turned them into something positive. As she grew older, she wanted to help others who had the same challenges. She became an activist and her mission was to inspire others. She spent her life raising money and awareness for the rights of women and people with disabilities. She wrote over a dozen books, traveled all over the country, and lived until she was 87 years old.



Helen Keller, ~1920. She would have been around 40 years old here.

Name: _____

Great Minds: Helen Keller

by Lydia Lukidis



1. According to the article, how did Helen Keller become blind and deaf?
 - a. She was born blind and deaf.
 - b. She was in a terrible horseback riding accident.
 - c. She became blind and deaf later in life due to old age.
 - d. She contracted a serious illness as a child.

2. Based on the information in the article, why did Helen Keller become angry and upset when she was a child?
 - a. Keller was used to getting her way, and she had tantrums when she didn't get her way.
 - b. Keller was frustrated that she couldn't communicate with her family and friends.
 - c. Keller was treated unkindly by her brothers and sisters because of her disabilities.
 - d. Keller experienced a lot of physical pain from her disabilities.

3. Who was Annie Sullivan?

4. Who was Sarah Fuller?

5. Which of the following statements about Helen Keller is **not** correct?
 - a. Helen Keller learned how to read Braille, use a typewriter, and even speak.
 - b. Helen Keller lived a very isolated life, surrounded only by family and a couple friends.
 - c. Helen Keller lived until the age of eighty-seven years old.
 - d. Helen Keller became an author and a political and social activist.

Name: _____

Great Minds: Helen Keller

by Lydia Lukidis

The following terms are vocabulary words from the article. Match the vocabulary word with its correct definition by writing the corresponding letter on the line.



- | | |
|-------------------------|---|
| 1. _____ Braille | a. help or guidance from a knowledgeable person |
| 2. _____ ecstatic | b. a person who campaigns for social change |
| 3. _____ tantrums | c. to keep going even though something is very difficult |
| 4. _____ techniques | d. a system of raised bumps on a surface that people who are blind can read with their fingertips |
| 5. _____ advice | e. understand or comprehend |
| 6. _____ persevere | f. outbursts of anger or frustration, often by a young child |
| 7. _____ vibrations | g. encourage; motivate |
| 8. _____ grasp | h. overwhelming excitement or happiness |
| 9. _____ activist | i. tremors or quivering that occur when sound travels |
| 10. _____ inspire | j. methods or strategies for mastering a skill or task |

Name: _____

Great Minds: Helen Keller

by Lydia Lukidis

In the article, “Great Minds: Helen Keller,” you learned how Helen Keller overcame the challenges of being a blind and deaf woman with the help of two amazing women who served as her teachers and friends.



On the lines below, write about someone who taught you something valuable in your life. You could write about one of your school teachers, a coach, a music teacher, a tutor, or even one of your parents or older siblings. Describe what they taught you and why it is important to you.

[illegible]

Name: _____

Falling Asleep

By B. J. Lee

I go to bed.
I close my eyes,
but specters
in my mind arise.
I punch my pillow,
toss and moan.
Clearly, I
am not alone.
I crack an eyelid,
scan the room –
that's when I see
dark shadows loom.
I rub my eyes
so hard they burn.
I crumple up
my sheets and turn.
I struggle, wrestle
through the night,
then, finally,
at dawn's first light:
as sunbeams 'cross
my window creep,
I shudder twice
and
fall
asleep.



Name: _____

Falling Asleep

Poem by B. J. Lee



1. Why can't the person in this poem fall asleep?
 - a. He or she is not tired.
 - b. He or she is feeling afraid.
 - c. He or she is in an uncomfortable bed.
 - d. He or she is worried about school.

2. How long does the person in the poem stay awake in bed?
 - a. an hour or two
 - b. until midnight
 - c. until morning
 - d. until dusk

3. Which word is a synonym for **specter**?
 - a. dream
 - b. sleep
 - c. headache
 - d. ghost

4. What does the word **loom** mean?
 - a. to move about
 - b. to tower over
 - c. to come closer
 - d. to make quiet sounds

5. Which word is a synonym for **shudder**?
 - a. tremble
 - b. blink
 - c. snore
 - d. breathe

Name: _____

World's Largest Seal

by Guy Belleranti

In the freezing ocean waters of Antarctica, the planet's largest seals make their home in a frozen world. These giants are southern elephant seals, and they can grow as long as the length of a car and weigh as much as two cars combined. The name "elephant seal" comes from both the males' enormous size and from their giant trunk-like nose, called a proboscis. Females do not have a proboscis and they are much smaller.



A thick layer of blubber keeps southern elephant seals warm in their icy habitat. The seals are clumsy on land, but in water they're graceful swimmers and incredible divers. They can easily dive 1,000 to 4,000 feet to hunt for squid, octopus, and various kinds of fish. Elephant seals are able to stay underwater for 20 minutes or more. The longest underwater session researchers observed is an amazing two hours! When they return to the surface to breathe, it's only for a few minutes. Then they dive again.

While elephant seals spend most of their time swimming, they also gather on beaches in groups called colonies. One reason they come to land is to give birth and breed. Males arrive before females. They battle for dominance, deciding who will have large harems of females. Raising their enormous bodies, the males inflate their snouts and bellow. Usually these confrontations end quickly. However, sometimes only a physical battle can settle the matter. These fights can be bloody, but permanent injury is rare.

Females arriving on land give birth to a single pup they've been carrying since the previous year. Newborns weigh about 90 pounds. The mother nurses her pup for a little over three weeks. After this, she breeds with a dominant male and then returns to the sea to feed. Her pup now weighs well over 200 pounds and is on its own. If it survives, it too will enter the sea within a couple of months.

A second reason elephant seals come to land is to molt. When they molt, they shed old skin and fur and new skin and fur grows.

A smaller species, the northern elephant seal, lives in the Pacific Ocean, dispersed from Baja, California to Alaska. Both northern and southern elephant seals were once hunted nearly to extinction. However, under legal protections both have made incredible comebacks.

Name: _____

World's Largest Seal

by Guy Belleranti



1. Based on the information in the article, describe how an elephant seal's movements are different on land than in the water.

2. Why do male elephant seals arrive on land before females during the breeding season?

3. According to the information in the article, describe two reasons why elephant seals come on land.

4. How does an elephant seal obtain its food? What foods are a part of an elephant seal's diet?

5. Based on what you read in the article, are elephant seals in danger of becoming extinct today? Why or why not?

Name: _____

World's Largest Seal

by Guy Belleranti

Fill in the missing letters to create a vocabulary word from the article.
Then write the full word on the line. Be sure you spell each word correctly.



1. ___ n ___ ___ m o ___ s

hint: extremely large

2. ___ o ___ i n ___ n ___ e

hint: power or superiority over others

3. c ___ u ___ ___ y

hint: awkward; ungainly

4. ___ e r ___ a ___ e n ___

hint: lasting indefinitely

5. ___ ___ l ___ n i e ___

hint: groups of elephant seals

6. e ___ ___ i n ___ t ___ ___ n

hint: disappearance from the planet

7. ___ ___ u b ___ e r

hint: fatty tissue that helps sea mammals stay warm

8. ___ e l l ___ ___

hint: make a loud roaring sound

Name: _____

World's Largest Seal

by Guy Belleranti

In the article, “World’s Largest Seal,” you learned that southern elephant seals reside in the icy waters of Antarctica.



Choose another animal species that lives in Antarctica. Using the Internet, with your teacher's permission, research five interesting facts about the animal you choose. Describe what you learned on the lines below. Be sure to include the website address where you learned the information about your animal species.

[illegible]

Website I used: _____

Name: _____

Have You Got a Buck?

by Mikki Sadil

Have you ever heard the expression "gotta buck"? It refers to the one dollar bill, and although nobody seems to know how "buck" came to mean a dollar, the term has been around for a very long time. We call bills like the dollar (\$1, \$5, \$10, \$20, \$50, and \$100) *paper money*, but they're really not paper. They are made out of material, just like clothes, with tiny blue and red fibers running through them. Have you ever left a dollar in your jeans just before your mom washed them? I'll bet the dollar always came out okay, didn't it? That's because this special material is printed with a secret kind of waterproof ink that won't run.

If you have a dollar bill, take it out so you can look at it as we go along. If you don't, you can use the picture below.



The front of the bill is called the obverse side. To the right of George Washington, you'll see the U.S. Treasury Department Seal. On top of the seal is a scale that represents justice. In the center of the seal is a chevron with thirteen stars. Beneath that is the key to represent authority and trust.

Now turn the bill over. What do you see?



On the reverse side, you will see two circles which represent the Great Seal of the United States. Let's first talk about the left-hand circle. This is actually the back, or reverse side of the Great Seal.

You'll see a pyramid with the front lighted, but the Western side is dark. That dark side means we didn't know much about the West at that time. The Pyramid is uncapped, which means the U.S. was a new country and wasn't completely explored yet.

Inside the capstone of the pyramid is the "all-seeing eye", an ancient symbol of religion. Benjamin Franklin, who helped design the seal, believed that one man couldn't build a nation all by himself, but a group of men, with the help of God, could do anything.

The Latin words above and below the pyramid mean "God has favored our undertaking," and "A new order has begun." At the base of the Pyramid is the Roman numeral for the year 1776, the year the Declaration of Independence was signed.

Now look at the right-hand circle. This is the front, or obverse side of the Great Seal. In the eagle's beak are the Latin words, "E PLURIBUS UNUM." This means, "one nation made of many states."

Stars and stripes are symbols for our country you're probably familiar with. On the Great seal, there are stars over the eagle's head and stripes on the shield that make up its body.

The eagle holds an olive branch in his right talon, which means that our country strives for peace. It also holds arrows in his left talon, which means we are willing to fight to protect that peace. Notice that the eagle's head is looking to the left, in the same direction of the olive branch. This shows that our country prefers peace over war.

Have you noticed the number *thirteen* comes up a lot? Some people consider 13 an unlucky number, but it's really a symbolic number for our country. The United States was started from 13 colonies and there were 13 original states. Our flag even has 13 red and white stripes on it. On the reverse side of the one-dollar bill, you will notice lots of thirteens:

- **13** stars above the eagle
- **13** bars on the shield
- **13** leaves on the olive branch
- **13** steps on the pyramid
- **13** olives on the olive branch
- **13** arrows
- **13** pearls next to the seal and the pyramid

So the next time one of your friends talks about how the number 13 is unlucky, ask him to take out a dollar bill, and show him what *thirteen* really means to an American!

Name: _____

Have You Got a Buck?



1. What does the picture to the right show?
 - a. the front side of the dollar bill
 - b. the obverse side of the Great Seal of the United States
 - c. the reverse side of the Great Seal of the United States
 - d. the back side of the Great Seal of the United States
2. On the front of the dollar bill is a picture of...
 - a. the Great Seal of the United States
 - b. several presidents
 - c. the Seal of the Treasury Department
 - d. an eagle and a pyramid
3. What does the eye on the back of a dollar bill symbolize?
 - a. the importance of the Egyptian pyramids
 - b. our country's preference for peace
 - c. the president looking over our country
 - d. religion
4. What does the Latin phrase, "E PLURIBUS UNUM" mean?

5. Describe the symbolism of the arrows and the olive branch. Also, explain why the eagle's head is looking to the left.

Name: _____

Have You Got a Buck?

Match each vocabulary word on the left with its definition on the right.



- | | |
|----------------------|---|
| 1. ____ buck | a. language spoken by ancient Romans |
| 2. ____ fibers | b. large building with a square base and triangular sides |
| 3. ____ chevron | c. slang term for a dollar |
| 4. ____ obverse | d. symbol shaped like a V or an upside-down V |
| 5. ____ reverse | e. symbol for peace |
| 6. ____ Latin | f. type of pants made of denim |
| 7. ____ pyramid | g. small threads |
| 8. ____ Treasury | h. front side |
| 9. ____ olive branch | i. back side |
| 10. ____ jeans | j. the government department responsible for budgeting and managing our country's money |

Name: _____

An **idiom** (pronounced: ID-ee-um) is a saying that doesn't mean exactly what it says.



Idioms

by Lill Pluta

Wouldn't you be tickled pink,
with everything except the sink?
But all that glitters isn't gold,
so don't get left out in the cold.
You can't have cake and eat it too,
or bite off more than you can chew.
It's easy come and easy go,
so hold your tongue, or you'll eat crow.



If someone tells you, "You can't have your cake and eat it too," what do they mean?



If you're tickled pink, how do you feel?



What does it mean if you have to eat crow?

Name: _____

Idioms

Use with Idiom Poem by Lill Pluta



An idiom is an old saying that doesn't mean exactly what it says. Every culture has its own idioms, which can make learning a new language confusing.

Match each idiom from the poem to its meaning.

- | | |
|---|--|
| 1. ____ tickled pink | a. admit you are wrong |
| 2. ____ everything except the sink | b. leave somebody out, exclude |
| 3. ____ all that glitters isn't gold | c. don't say anything |
| 4. ____ left out in the cold | d. extremely happy, delighted |
| 5. ____ can't have your cake and eat it too | e. lose something as quickly as you get it |
| 6. ____ bite off more than you can chew | f. can't have something both ways |
| 7. ____ easy come, easy go | g. try to do too much at one time |
| 8. ____ hold your tongue | h. taking almost everything there is |
| 9. ____ eat crow | i. attractive things might be useless |