WES Specials Bingo

WES Families: The special teachers have put together a Bingo card of educational activities pertaining to our subject areas for you to complete together during AMI days. Complete any two activities for each AMI day. Return the Bingo card to Mrs. Warner. All of the Special Class Teachers will be available by email each AMI day to answer questions.

Computer Lab Mrs. Warner	Library Ms. Grubb	Art Mrs. Bowen	Music Mrs. Brown	PE Coach Cox	Counseling Miss Burden
Pick a learning game on toytheater.com.	Get comfy in your PJ's and read for at least 15 minutes.	Look outside and draw a picture of something that you see.	Watch "Never play music right next to the zoo read by John Lithgow" on youtube.	Do 10 sets of 5 push-ups and 5 sit-ups (50 total of each)	Draw a picture or write about a time when you have felt sad and what made you feel better.
Access wideopenschool.org choose the family option and access different virtual field trips to places around the world!	Read with an adult or sibling for 15 minutes.	Draw a self-portrait.	Go to https://www.classicsforkids.com/music-games/ And compose a new song!	Play a game for 20 minutes that involves moving around the house.	Write positive things you like about yourself and hide them around your house to find later.
Write or type about a virtual field trip you take OR about a place you visited on Google Earth.	Draw a picture or write about a book you are reading.	Draw one place you would like to visit (real or make-believe).	Go to musiclab.chromeexperiments.com and do some music related experiments!	Create your own 4-day workout and share it with your family. Try it next week.	https://youtu.be/wf5K3pP2IUQ Watch and practice mindfulness by stretching out your muscles.
Pick a person, place, or thing and research. Write or type a short description about it.	Read to your pet or stuffed animal using a funny voice.	Draw a character from a book that you are reading.	Listen to a few minutes of "Beethoven's 5th Symphony" on youtube. Draw a picture that goes with the music.	Check out Coach Cox's choice board! https://bit.ly/3s4r6e2	Make a list of 5 random acts of kindness and do them throughout your day.
Do coding on Code.org, Tynker, Santa Tracker, Codecombat, or Kodable-Hour of Code.	Read a recipe and make yourself a snack.	Go to .https://www.artforkidshub.com/how-to-draw/animals/ and pick an animal to draw	Go to youtube and find **Family Dynamics by Courtney Vowell Woodward** read aloud. Listen to the book.		https://youtu.be/RiMb2Bw4Ae8 Watch Belly Breathing Exercise video and practice 3 throughout the day.

AMI - DAY 1

Name _____

Algebra • Powers of 10 and Exponents

You can represent repeated factors with a base and an exponent.

Write 10 × 10 × 10 × 10 × 10 × 10 in exponent form.

10 is the repeated factor, so 10 is the **base.**

The base is repeated 6 times, so 6 is the **exponent.**

$10 \times 10 \times 10 \times 10 \times 10 \times 10 = 10^6$

10^6 — exponent

base

A base with an exponent can be written in words.

Write 10^6 in words.

The exponent 6 means "the sixth power."

10^6 in words is "the sixth power of ten."

You can read 10^2 in two ways: "ten squared" or "the second power of ten."

You can also read 10^3 in two ways: "ten cubed" or "the third power of ten."

Write in exponent form and in word form.

1. $10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10$

   exponent form: _____ word form: _____

2. $10 \times 10 \times 10$

   exponent form: _____ word form: _____

3. $10 \times 10 \times 10 \times 10 \times 10$

   exponent form: _____ word form: _____

Find the value.

4. 10^4 _____

5. 2×10^3 _____

6. 6×10^2 _____

OVER →

Name _____

Lesson 1.4
Enrich

Powers and Words

Find the value. Then write the value in word form.

1. $70 \times 10^3 =$ _____

   Word form: _____

2. $35 \times 10^2 =$ _____

   Word form: _____

3. $14 \times 10^3 =$ _____

   Word form: _____

4. $60 \times 10^7 =$ _____

   Word form: _____

5. $51 \times 10^4 =$ _____

   Word form: _____

Name: _____

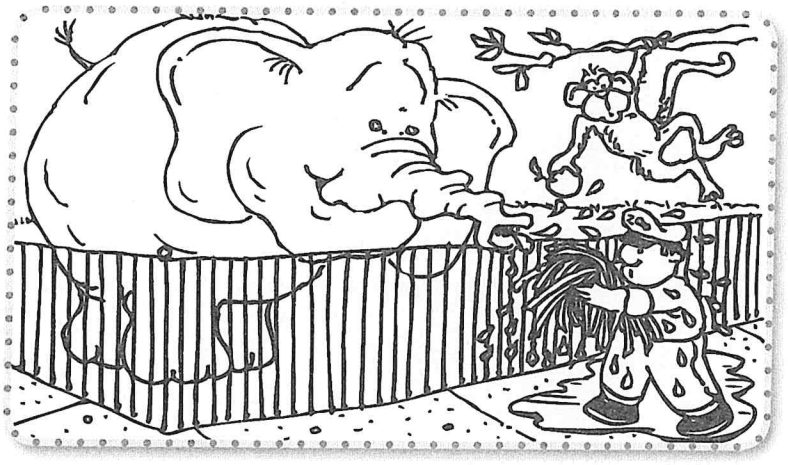
Describe the Characters

Underline the words and phrases that describe the zookeeper.

Circle the words and phrases that describe the monkey.

Make an **X** by the words and phrases that describe the elephant.

You will not use all of the words or phrases.



enormous	cares for animals	wearing work clothes
curious	chatters noisily	stands large and tall
strong	signs as he works	big ears flap back and forth
hardworking	little brown monkey	surprised
agile trunk	wet from head to toe	loves fruit
playful	wrinkled skin	whisks flies with its tail
ferocious	can swing on trees	standing on four big feet

Select one character. Using the descriptive words and phrases you marked, write a paragraph to introduce that character to your reader.

Creatures That Glow in the Dark!

Name: _____

Did you know that some of Earth's animals glow? Bioluminescence, or "living light," is the production of light by living creatures. Fireflies and glowworms are land-based creatures that create this light. Fireflies use their self-made light to attract mates. There are many ocean creatures — especially those living in the ocean depths — that are able to create their own light. Deep-sea creatures use the light to capture prey and sometimes to attract mates, as well. Hatchet fish have light organs along their bellies and tails. The viper fish has a mouth with more than 350 lights. Some jellyfish produce so much light that they can look like ghosts floating in the ocean at night. Deep-sea sharks, such as dwarf dogfish and the velvet belly shark, light up their surroundings in order to better see their prey. Lantern sharks attract small fish with glowing dots around and inside their mouths. Some sharks have glowing undersides, as well.

How is this light produced? Chemical reactions in certain parts of an animal's body can create light. The organs that produce light are called *photophores*. Oxygen combines with a substance called *luciferin*, and energy is released in this chemical reaction. The light gives off virtually no heat. Animals with this feature turn the light on and off by changing the amount of oxygen reaching them. Some bacteria also produce light, but scientists are unsure if they are using the same method. You can see this light on some beaches at night by gently rubbing the sand.

What Did You Learn

1. Which chemical combines with oxygen to produce light in an animal?
   - Ⓐ nitrogen
   - Ⓑ luciferin
   - Ⓒ calcium
   - Ⓓ carbon
2. What are body organs that produce light called?
   - Ⓐ photons
   - Ⓑ luciferin
   - Ⓒ photographs
   - Ⓓ photophores
3. Which of these creatures produces their own light?
   - Ⓐ hatchet fish
   - Ⓑ lantern sharks
   - Ⓒ jellyfish
   - Ⓓ all of the above
4. What is bioluminescence?
   - Ⓐ the ability to see in the dark
   - Ⓑ the ability of the body to produce light
   - Ⓒ a deep-sea creature
   - Ⓓ both B and C
5. In what part, area, or depth of the oceans would bioluminescence be most useful to fish or other sea animals? Explain your answer.

_____

_____

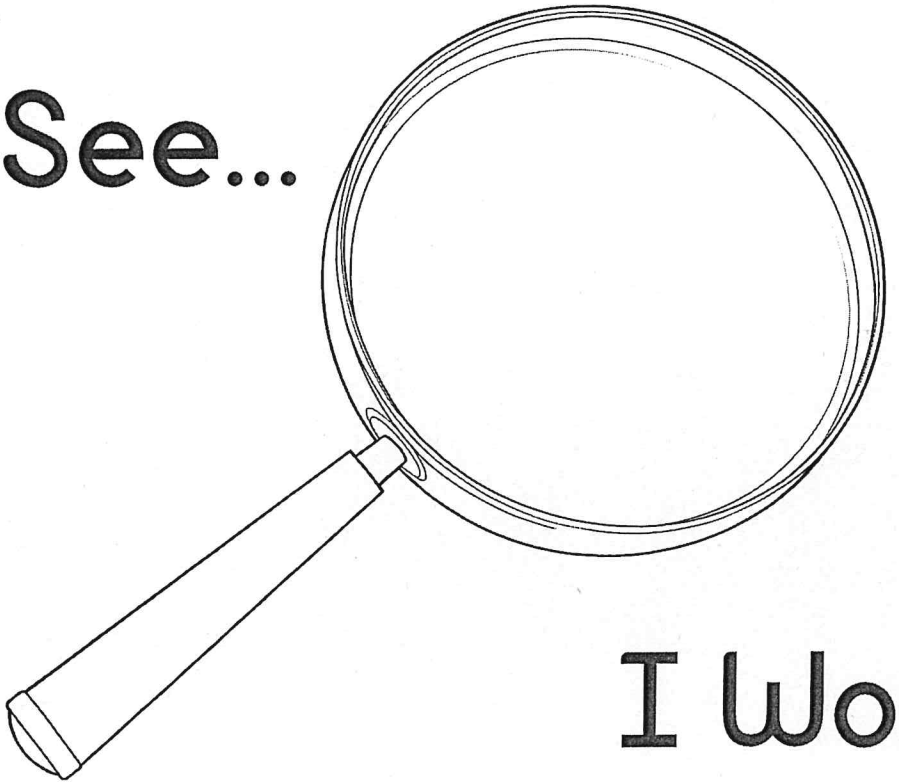
_____

Name: _____ Date: _____

Scientists Ask Questions

Draw or write what you see. Draw or write what you wonder about because of what you see.

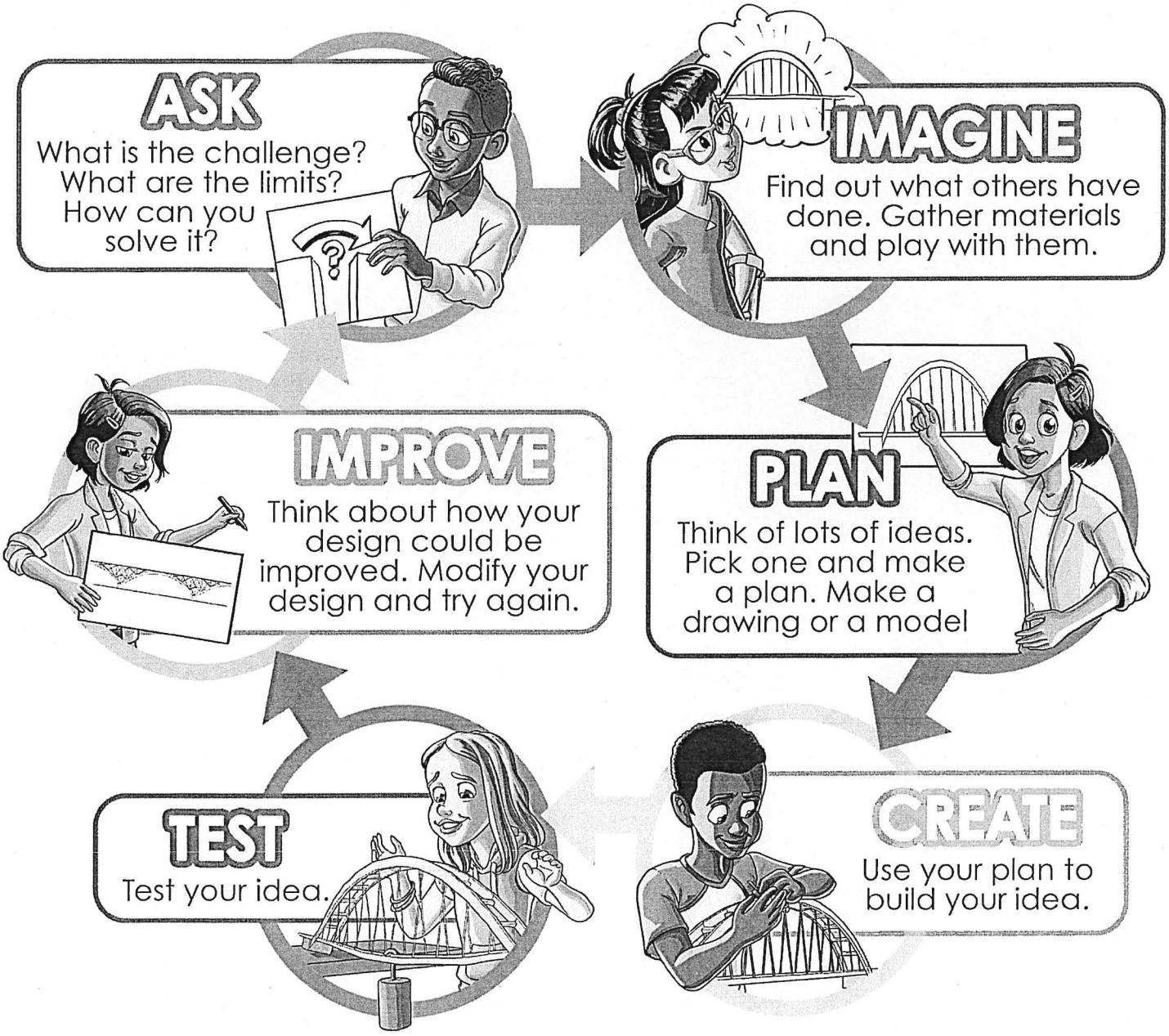
I See...



I Wonder...

Name: _____ Date: _____

ENGINEERING DESIGN PROCESS

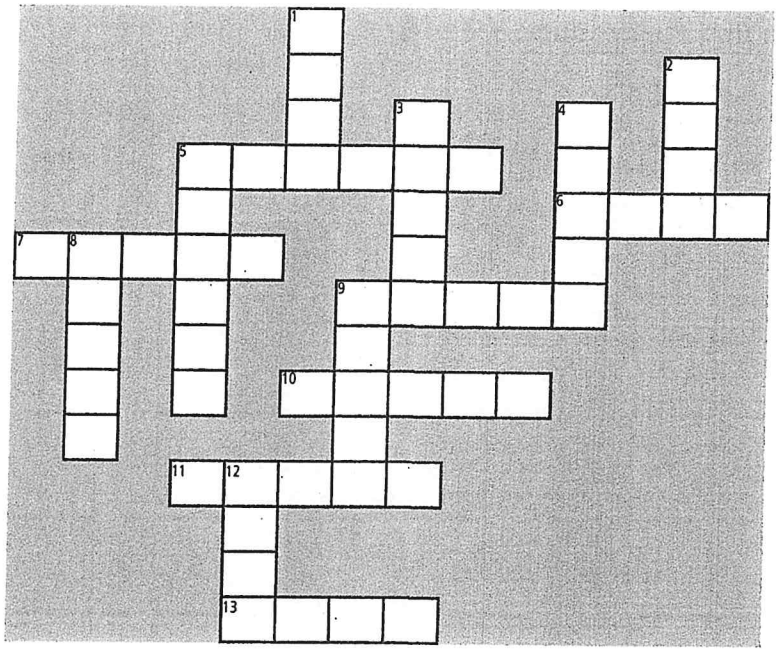


AMI - DAY 2

Name _____

Multiplication Number Puzzle

Use the clues to complete the puzzle.



Down

1. 856 × 9 _____

2. 847 × 6 _____

3. 5,082 × 3 _____

4. 7,028 × 6 _____

5. 24,162 × 8 _____

8. 2,127 × 6 _____

9. 3,289 × 5 _____

12. 601 × 6 _____

Across

5. 12,762 × 9 _____

6. 287 × 6 _____

7. 1,326 × 9 _____

9. 4,027 × 4 _____

10. 4,027 × 6 _____

11. 7,028 × 9 _____

13. 1,722 × 4 _____

14. Stretch Your Thinking Write a different clue that has the same product as 1,326 × 9.

_____

Tasmanian Devils

The Tasmanian devil has strong forelegs with five toes on each paw. The weaker hind paws have four toes. Bumpy pads on their paws help them climb trees.

After the sun sets in Tasmania, the night animals wake up. They don't have to set their alarm clocks. The screams of the Tasmanian devils tell them it's time to eat. When the nocturnal animals leave their daytime hideaways, they try to stay away from these unpleasant neighbors.

Tasmanian devils are always hungry. They can make a meal out of almost anything. If there is something to eat nearby, they'll find it. Their eyes see well at night, and they are talented food sniffers.

These scavengers are one of nature's important garbage collectors. Their favorite food is rotten meat. They feed on dead birds and animals. Their sharp teeth crush the toughest foods. They even swallow bones. The poisons and germs they eat don't seem to bother them. Their eating habits stop bacteria and disease from spreading to other animals. They keep the earth clean.

Tasmanian devils don't worry about good table manners. They scream with their mouths full. Chewing isn't in style. These carnivorous animals gulp down chunks of meat as fast as they can. They don't share, and they can eat ten times their weight in food at each meal.

Tasmanian devils have head-to-toe tempers. Their ears turn red when they are angry. They stomp their feet and turn from side to side to show off their teeth. That's not all. They scream and click their teeth too. If their tantrums don't scare enemies away, they give off smelly fluids from both ends of their bodies.

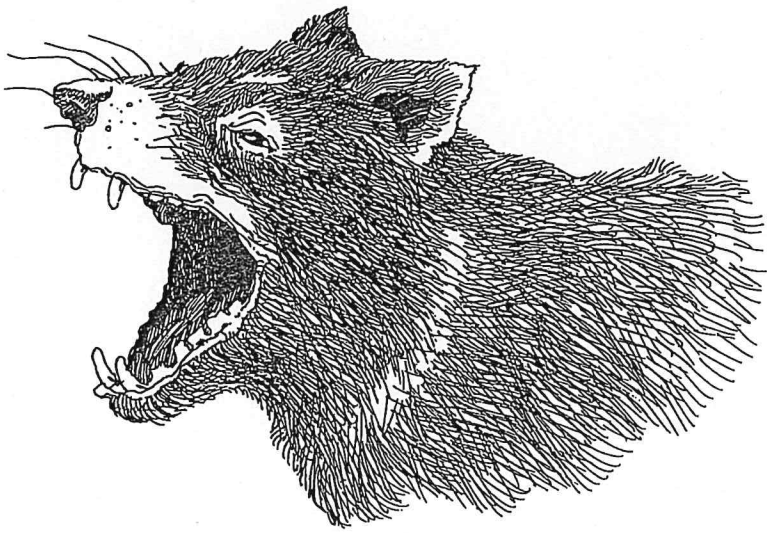
What happens when two Tasmanian devils meet? At first they try to scare off each other. If one decides not to fight, there are two ways to escape. One animal can let the other animal take a victory bite, or it can sprawl out on the ground on its belly. If neither animal gives up, they fight until one dies.

Tasmanian devils are black or brown with white patches or stripes. They aren't much bigger than a house cat when they are full-grown. Like the kangaroo, they are marsupials. The mother has a pouch for the babies.

Tasmanian devils are very tiny when they are born. After birth the $\frac{1}{4}$-inch-long (.6 centimeter) babies have to find their way to the mother's pouch. Mom feeds only the first four who climb into the pouch.

Like other mammals, the babies drink their mother's milk. They stay in the pouch for three months. The mother opens her pouch to clean the babies. When the babies have grown a few inches, they move to a nest of grass and leaves. They still take milk from the mother. After another three months, it's time to explore the world. They hang on to Mom's fur coat, and she takes them along to hunt for food.

When they are old enough to be on their own, the young leave home quickly. Like all Tasmanian devils, Mom has a bad temper and a big appetite. When she's hungry, she'll eat anything! That's one reason Tasmanian devils live by themselves in holes, hollow logs, and caves. ■



Name _____

Questions about *Tasmanian Devils*

1. When do Tasmanian devils look for food?

_____

_____

2. What is the function of the bumpy pads on a Tasmanian devil's paws?

_____

_____

3. In what ways are Tasmanian devils useful?

_____

_____

_____

4. Tell six ways that Tasmanian devils show they are angry.

_____

_____

_____

_____

_____

5. Using your own words, describe the traits of the Tasmanian devil.

_____

_____

_____

6. Use a globe or an atlas to find the island of Tasmania, the home of the Tasmanian devils. This island is part of the country that lies to the north. What is the name of this country?

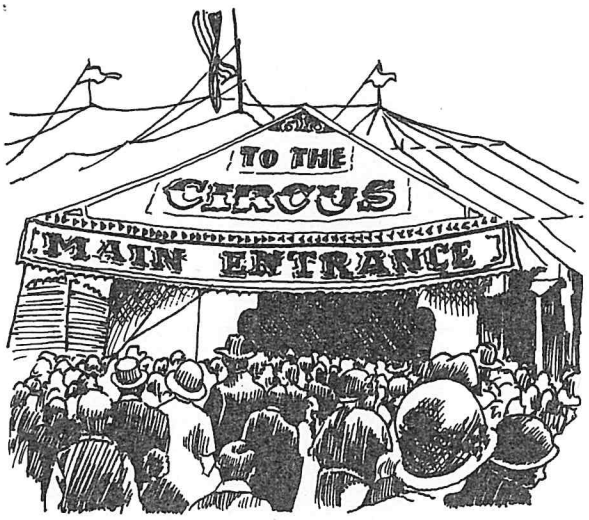
_____

Types of Sentences

Name _____

Rules and Examples

- Use a **period** at the end of a **declarative sentence.**
  The clown entertained the audience.
- Use a **period** at the end of an **imperative sentence.**
  Close the door on the lion cage.
- Use a **question mark** at the end of an **interrogative sentence.**
  What time will the performance start?
- Use an **exclamation point** at the end of an **exclamatory sentence.**
  Watch out for the ferocious lion!



Exercise Write the correct punctuation at the end of each sentence. Write the kind of sentence it is in the blank: **declarative, imperative, interrogative,** or **exclamatory.**

1. The circus had its beginnings in ancient Rome _____
2. The modern circus developed in England and soon came to America _____
3. Did Barnum and Bailey and the Ringling Brothers combine their two circuses _____
4. This circus became the biggest and most famous in history _____
5. How enjoyable it is to watch the different performers _____
6. Watch the performer fly through the air from one trapeze to another _____
7. What an exciting place the "big top" is for everyone _____
8. Look at the tamer cracking his whip _____
9. The Wallendas were a famous high wire act _____
10. Seven of them walked the wire while standing on each other's shoulders forming a pyramid _____
11. Sideshows sometimes take place in separate tents near the big top _____
12. I absolutely love to see the lion tamer perform _____

Name: _____ **Date:** _____

Solid, Liquid, or Gas?

There are three states of matter: solid, liquid, and gas. Use the information from the articles to complete the table.

Solid	Liquid	Gas
Arrangement of Molecules:	Arrangement of Molecules:	Arrangement of Molecules:
Model:	Model:	Model:
Examples:	Examples:	Examples:

AMI - DAY 3

Name _____

Partial Quotients

★ Use partial quotients or your preferred method for solving division problems.

Divide. Use partial quotients.

858 ÷ 57

		Quotient
Step 1 Estimate the number of groups of 57 that are in 858. You know 57 × 10 = 570. Since 570 < 858, at least 10 groups of 57 are in 858. Write 10 in the quotient column, because 10 groups of the divisor, 57, are in the dividend, 858.	858 −570 288	10
Step 2 Now estimate the number of groups of 57 that are in 288. You know 60 × 4 = 240. So at least 4 groups of 57 are in 288. Subtract 228 from 288, because 57 × 4 = 228. Write 4 in the quotient column, because 4 groups of the divisor, 57, are in 288.	288 −228 60	4
Step 3 Identify the number of groups of 57 that are in 60. 57 × 1 = 57, so there is 1 group of 57 in 60. Write 1 in the quotient column.	60 −57 remainder → 3	+ 1 15
Step 4 Find the total number of groups of the divisor, 57, that are in the dividend, 858, by adding the numbers in the quotient column. Include the remainder in your answer.		**Answer:** 15 r3

Divide. Use partial quotients. → or your preferred method to solve.

1. $17\overline{)476}$

2. $14\overline{)365}$

3. $25\overline{)753}$

4. 462 ÷ 11

5. 1,913 ÷ 47

6. 1,085 ÷ 32

Warm-Up 6

Builders

Name: _____

Did you know that the oceans are home to some of the most interesting builders? They are coral polyps. Coral will only grow in warm, shallow ocean waters. The water must be clean and less than 100 feet deep. Coral grows best near the shores of small tropical islands. Each coral organism produces a hard shell, which joins with the hard shells of other coral organisms. Together, they form reefs just below the surface of the water.

It takes thousands of years for these reefs to grow. Coral reefs form in the warm ocean waters near southern Asia and Australia. They also form on the eastern coast of Africa and both coasts near Central America. The largest coral reef in the world is the Great Barrier Reef near Australia. It is more than 1,260 miles long.

The reefs and the coral growing on them require sunlight to grow and flourish. Many different types of coral grow on them. These ocean communities are very sensitive. They can be killed by changes in the environment, which cut off sunlight or pollute the water. Coral polyps feed when they gently push plankton into their mouths with their tentacles. These tentacles filter food out of the water. There are thousands of different coral species. These include brain coral, elkhorn coral, and sea fans. Some coral have stinger cells. They even attack each other in order to expand their territory.

More fish and other species of sea life live in or near coral reefs than in any other part of the ocean. Some of these species include clown fish, sea anemones, angelfish, butterfly fish, sea urchins, puffer fish, and moray eels. Christmas-tree worms live in holes in dead coral. The crown-of-thorns starfish suck coral polyps out of their shells. All of these creatures form a special community where many species survive. Would you like to explore these underwater habitats?

What Did You Learn

1. Which of the following is not a species of coral?
   - Ⓐ sea fan
   - Ⓑ brain coral
   - Ⓒ sea urchin
   - Ⓓ elkhorn coral

2. What do coral eat?
   - Ⓐ sea urchins
   - Ⓑ plankton
   - Ⓒ clown fish
   - Ⓓ starfish

3. Where are coral reefs located?
   - Ⓐ in ocean water more than 1,000 feet deep
   - Ⓑ near the Arctic waters
   - Ⓒ in shallow oceans near islands
   - Ⓓ near Greenland

4. Coral reefs are occupied
   - Ⓐ only by a few creatures.
   - Ⓑ only by fish.
   - Ⓒ by a huge number of species.
   - Ⓓ only by coral.

5. Which creatures would you like to see on a coral reef if you got to visit one? Why?

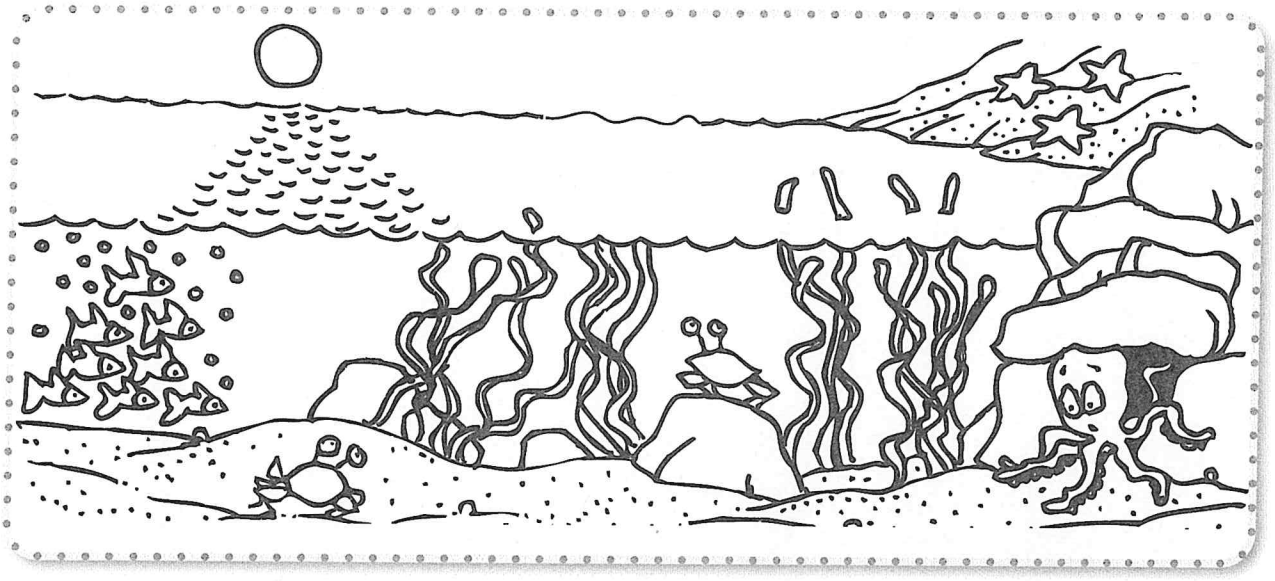
_____

_____

Name: _____

Describe the Setting

Underline the phrases below that describe this setting.

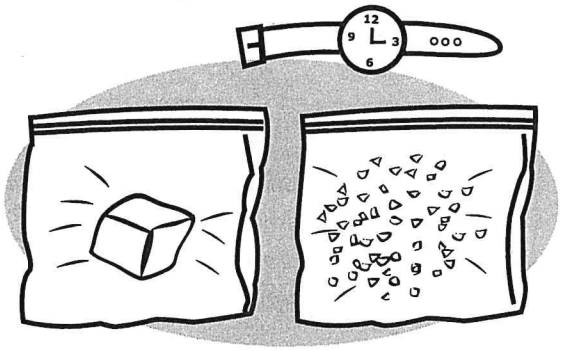


long kelp swaying in the water	rooster crowing	dark shadows
otter wrapped in kelp	crabs scuttling	sea stars on rocks
sunlight shimmering on the water	midnight	sharp cactus plants
octopus hiding under a rock	hot and dry	pools of cool water
grains of golden sand	school of fish	floating icebergs
tasty fruit growing on trees	rain falling	people talking

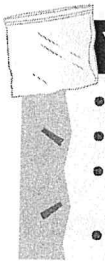
Using the underlined phrases, write a paragraph describing the setting to your readers.

Name _____ Date _____

On the Surface



How does changing the surface area of an ice cube affect the rate at which it melts?



You'll Need

- 2 zipper-style sandwich bags
- 2 same-sized ice cubes
- watch or clock with a second hand
- hammer or rolling pin

❶ Place an ice cube in each sandwich bag and zip each bag tightly closed.

❷ Take the hammer or rolling pin and gently break up the ice in one of the bags so that it is now in many small pieces. Be careful not to tear the bag! By crushing the ice, what did you do to the overall surface area of the cube?

_____

_____

❸ Examine the ice in each bag. Which ice will melt faster? Why? Record your prediction and reasoning:

_____

_____

❹ Place the two bags side-by-side on a table in a warm room. Keep a close watch on the ice in the two bags. Every minute or so lift the bags to see how much of the ice has melted. Which bag of ice melted first?

_____

_____

❺ How did your observations compare with your prediction? Explain why you think you got the results that you did:

_____

_____

Think About It: How might you melt ice covering a sidewalk or street faster without using heat or chemicals?

AMI - DAY 4

Name _____

Compare and Order Decimals

You can use a place-value chart to compare decimals.

Compare. Write <, >, or =.

4.375 ◯ 4.382

Write both numbers in a place-value chart. Then compare the digits, starting with the greatest place value. Stop when the digits are different and compare.

Ones	Tenths	Hundredths	Thousandths
4	3	7	5
4	3	8	2

The ones digits are the same. The tenths digits are the same. The hundredths digits are different.

The digits are different in the hundredths place.

Since 7 hundredths < 8 hundredths, 4.375 (<) 4.382.

1. Use the place-value chart to compare the two numbers. What is the greatest place-value position where the digits differ?

Ones	Tenths	Hundredths	Thousandths
2	8	6	5
2	8	6	1

_____

Compare. Write <, >, or =.

2. 5.37 ◯ 5.370

3. 9.425 ◯ 9.417

4. 7.684 ◯ 7.689

Name the greatest place-value position where the digits differ. Name the greater number.

5. 8.675; 8.654

_____

_____

6. 3.086; 3.194

_____

_____

7. 6.243; 6.247

_____

_____

Order from least to greatest.

8. 5.04; 5.4; 5.406; 5.064

_____

9. 2.614; 2.146; 2.46; 2.164

_____

Toads

Toads and frogs belong to the group of animals called amphibians. The word *amphibian* comes from Greek and means having two lives. Both toads and frogs really do live two lives. First as tadpoles, they hatch from the eggs and live in the water. They undergo changes (metamorphosis) in the water. When they have their adult frog and toad bodies, most become land animals. They return to the water to lay their eggs.

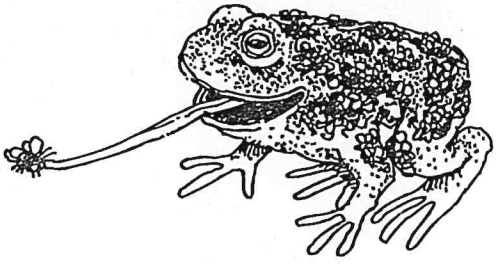
Frogs and toads are so much alike that scientists often classify toads as a type of frog. Toads differ from the other frogs in their family because they have rougher skin and shorter hind legs. They have bumps, or tubercules, on their bodies. Toads are heavier than other frogs, and with their short hind legs, they can't hop as far. Many toads have glands on the sides of their neck. They give off a toxic fluid when the toad is attacked. Snakes don't seem to be bothered by the toxins, but most other animals quickly let go of the toad when they taste this poison. Toads can be as small as 1 inch long (2.5 cm) or as large as 9 inches (23 cm).

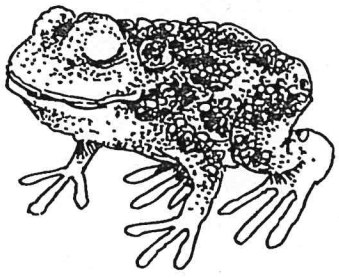
Toads are nocturnal animals. During the day they hide in dark, damp places. Where winters are cold, they bury themselves in the ground in the winter and hibernate until the weather is warmer.

Toads absorb moisture through their skin instead of drinking it. When the weather is too hot, they can cover up underground where it is moist and estivate until the weather cools.

Toads feed on beetles and other insects, grubs, worms, and slugs. The 9-inch-long (23 cm) marine toads in Texas and Florida are big enough to eat mice. The toad has a long tongue attached to the front of its mouth. This sticky tongue darts out to catch insects flying nearby.

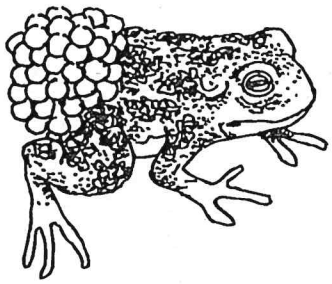
Toads swallow in an unusual way. They blink their eyes each time they swallow. Because there are no bones between the eye and the mouth, the eye presses against the roof of the mouth when it blinks. This pushes the food into the body.





Toads lay eggs in pools of water. A strip of gelatinlike material that can be more than four feet long surrounds the eggs. The amount of time it takes the eggs to develop and hatch depends on the species of toad. It can take several months for the tadpoles to grow legs and develop into toads.

Midwife Toad



The Midwife Toad

The midwife toad is found in southwestern Europe. The male takes care of the eggs. After the female lays the eggs, the male wraps the strings of eggs around his thighs. Each night he moistens the eggs with pond water or dew. After a month, he takes the eggs to the pond. Tadpoles leave the eggs and swim away.

Surinam Toad

This tropical toad can grow to 6 inches (15 cm). It is a brown or gray color like many other toads. It has webbed hind feet, and its front legs have star-shaped tips on the ends. This toad lives in the water and eats small fish and other water creatures. The male presses the eggs onto the back of the female. Her skin makes a pocket around each egg. The tadpoles swim away once they hatch from the eggs.

Spadefoot Toad

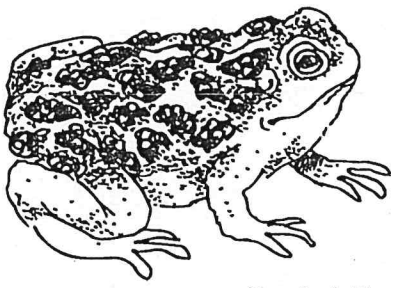
Spadefoot toads have smooth skin. Usually they don't have the toxin glands found on other toads. The name "spadefoot" comes from the tubercules on each hind foot. This 2-inch-long (5 cm) toad uses these special hind feet to dig into the earth. It can quickly hide under the ground. In fact, the spadefoot stays underground most of the time. After a spring rain, spadefoots head for newly created ponds to lay their eggs. Because the water can dry up quickly, spadefoot tadpoles become toads in a few weeks and head for land. Many spadefoots are killed by cars when they cross roads on their way to and from the ponds.

American Toad

The American toad can be found in the Eastern United States and Canada. It is 1 to 2 inches long (2.5 to 5 cm). The colors of the American toad vary, but generally it is a brownish olive. The musical trilling songs that come from an external vocal pouch can identify the males. The tadpoles leave the eggs after only three days. After two months they hop out of the pond in their adult bodies, ready to live on land.

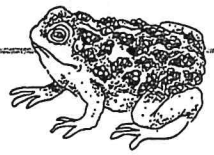
Fowler's Toad

Unlike the melodic American toad, this amphibian screams out its song. It's found in the same area as the American toad. Fowler's toads don't have spots on their bellies and chests like the American toad. ■



Fowler's Toad

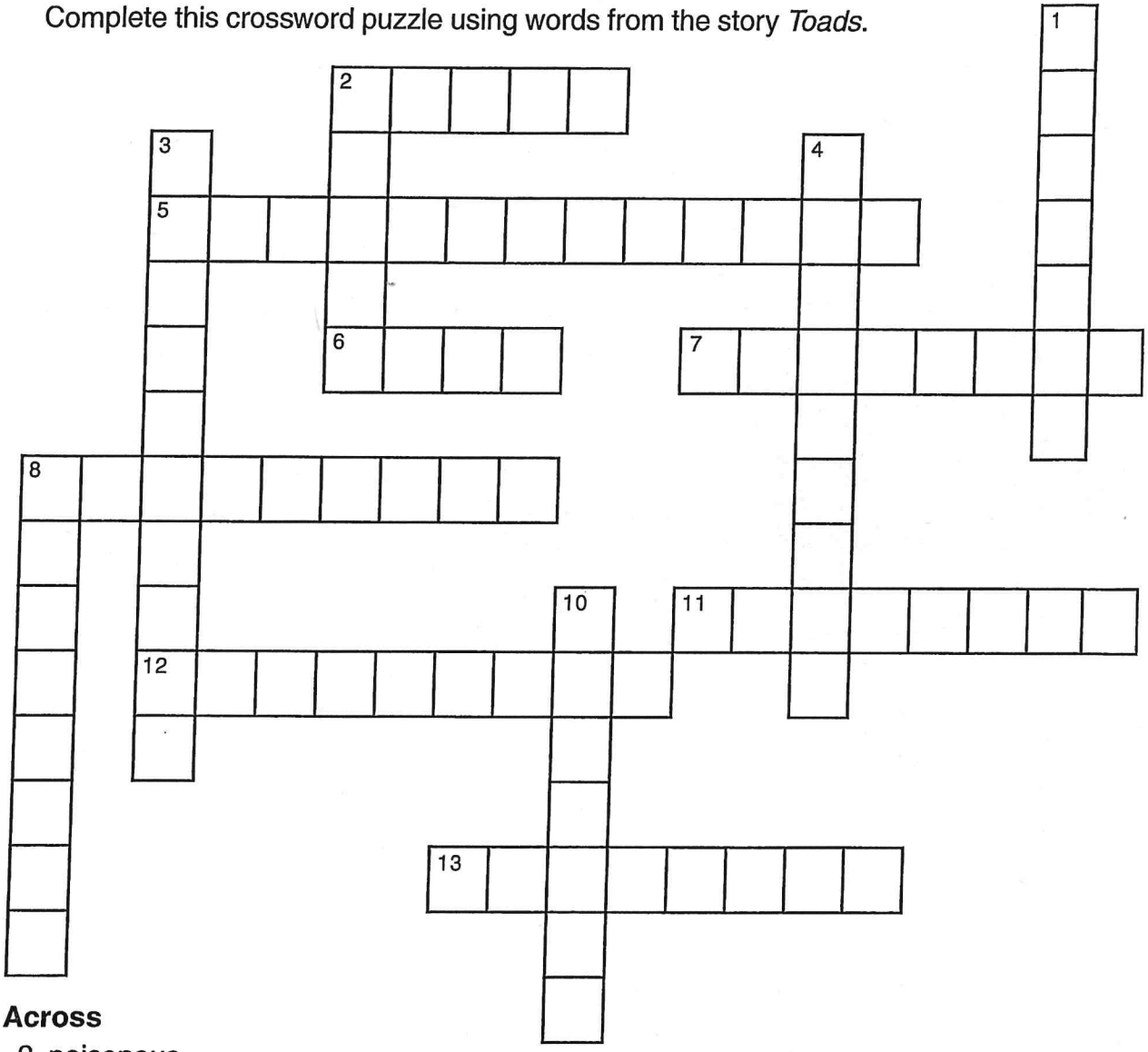
Name _____



Toads

Crossword Puzzle

Complete this crossword puzzle using words from the story *Toads*.



Across

2. poisonous
5. changes in form, such as caterpillar to butterfly
6. the outer covering of a toad
7. a toad with a musical voice
8. a bump or a growth
11. on the outside
12. active at night
13. to be dormant in the summer

Down

1. a toad with star-shaped tips on its front feet
2. amphibians with bumpy skin and short hind legs
3. animals that live on land and in the water
4. to be dormant in the winter
8. relating to the zones of the earth nearest the equator
10. the place where an animal lives

Name: _____

Describe the Plot

Underline the phrases below that describe what is shown in this illustration.

hungry bear	storm coming	lost in the woods
broken leg	no way to escape	danger in the night
Dad out fishing	afraid to cry for help	caught up in a tree
hunter nearby	tree branch breaking	trapped in a cave

Using the phrases you underlined, write a paragraph describing what is happening.

Science Investigation #61

Return to Me

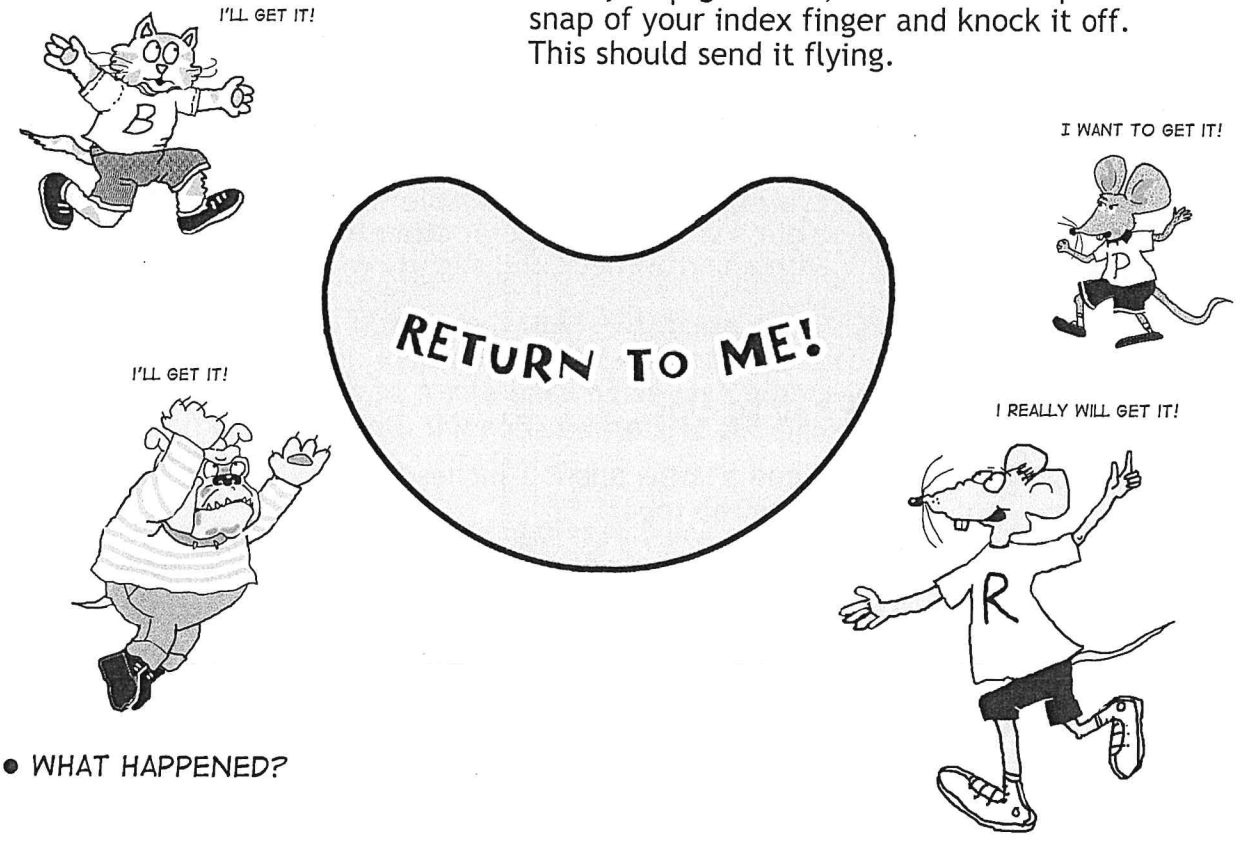
Here's something that you can't toss away. No matter how hard you try, it will just keep coming back to you.

What to Use:

- scissors
- colored markers
- lightweight cardboard or cardstock

What to Do:

1. Copy the mini-boomerang pattern onto cardstock, or trace it onto lightweight cardboard. Color and cut it out.
2. Lay the boomerang on the first finger of your left hand. Hold it away from your body.
3. With your right hand, flick it with a quick snap of your index finger and knock it off. This should send it flying.



- WHAT HAPPENED?

- WHY DO YOU THINK THIS HAPPENED?

Name_____

AMI - DAY 5

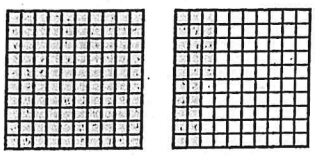
Name _____

Decimal Addition

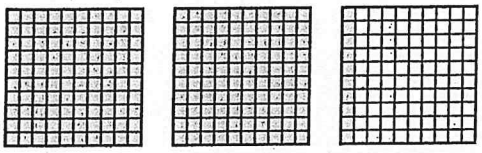
You can use decimal models to help you add decimals.

Add. 1.25 + 0.85

Step 1 Shade squares to represent 1.25.



Step 2 Shade additional squares to represent adding 0.85.



Remember:
Since there are only 75 squares left in the second model, you need to add another whole model for the remaining 10 squares.

Step 3 Count the total number of shaded squares. There are 2 whole squares and 10 one-hundredths squares shaded. So, 2.10 wholes in all are shaded.

So, 1.25 + 0.85 = 2.10.

Add. Use decimal models. Draw a picture to show your work.

1. 2.1 + 0.59

_____

2. 1.4 + 0.22

_____

3. 1.27 + 1.15

_____

4. 0.81 + 0.43

_____

OVER →

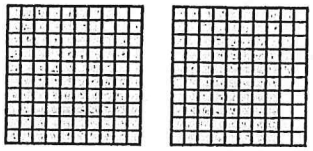
Name _____

Decimal Subtraction

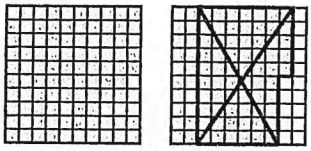
You can use decimal models to help you subtract decimals.

Subtract. 1.85 − 0.65

Step 1 Shade squares to represent 1.85.



Step 2 Circle and cross out 65 of the shaded squares to represent subtracting 0.65.



Step 3 Count the shaded squares that are not crossed out. Altogether, 1 whole square and 20 one-hundredths squares, or 1.20 wholes, are NOT crossed out.

So, 1.85 − 0.65 = 1.20.

Remember:
By circling and crossing out shaded squares, you can see how many squares are taken away, or subtracted.

Subtract. Use decimal models. Draw a picture to show your work.

1. 1.4 − 0.61

_____

2. 1.6 − 1.08

_____

3. 0.84 − 0.17

_____

4. 1.39 − 1.14

_____

One Way Nature Recycles

Name: _____

Did you ever wonder what happened to dead plants and animals? Nothing is ever wasted in the natural world. Waste products are produced in nature all the time. Plants and animals die. Nature removes these dead things and waste products. It reuses the materials. Creatures called *decomposers* eat this dead and decaying material. They break everything down so that it can be used again. There are three important classes of decomposers: Fungi, Bacteria, and Invertebrates (small animals without backbones). Because of this, decomposers are sometimes nicknamed the FBI.

Fungi cannot make their own food. Each fungus produces a mass of tiny threads underground. They are usually hidden in the ground or in dead materials, such as rotten wood. Fungi absorb chemicals from the decaying products. In turn, other creatures will eat the fungi. The chemicals are then returned to the soil to be used again.

Bacteria are very small living creatures. One single cell of bacteria is about 1,000 times as small as a single animal cell, which is also very small. Bacteria cells can only be seen with a special electron microscope. This instrument magnifies objects thousands of times the real size. Bacteria digest waste products. They absorb food from this dead matter. A small patch of dirt will have billons of bacteria.

When an animal dies in nature, maggots and other insects eat the decaying flesh. Insects and other invertebrates eat through decaying vegetation. Earthworms swallow soil and digest the dead matter it contains. Worm castings are the waste products of earthworms. The nutrients go into the soil. They provide food for growing plants.

What Did You Learn

1. Which is a part of the FBI of decomposers?
   - Ⓐ bacteria
   - Ⓑ fungi
   - Ⓒ invertebrates
   - Ⓓ all of the above
2. Which decomposer can only be seen with an electron microscope?
   - Ⓐ bacteria
   - Ⓑ fungi
   - Ⓒ invertebrates
   - Ⓓ all of the above
3. Which class of decomposer is an earthworm?
   - Ⓐ invertebrate
   - Ⓑ bacteria
   - Ⓒ vertebrate
   - Ⓓ fungi
4. Which of the following are invertebrates?
   - Ⓐ earthworms
   - Ⓑ insects
   - Ⓒ bacteria
   - Ⓓ both A and B
5. Why are decomposers essential to life on Earth? What would happen if things didn't decompose?

_____

_____

_____

Name: _____

Write a Conclusion

Read the story. Write an ending. Read your conclusion to someone to see if that person agrees that it is a reasonable ending.

Everything had gone wrong for Harold this morning. He woke up late, he couldn't find his homework, and now he had missed the school bus. His mom had already left for work, so she couldn't take him.

"I know what to do," he thought. "I'll ride my bike. It's only a mile to school. I can still make it in time."

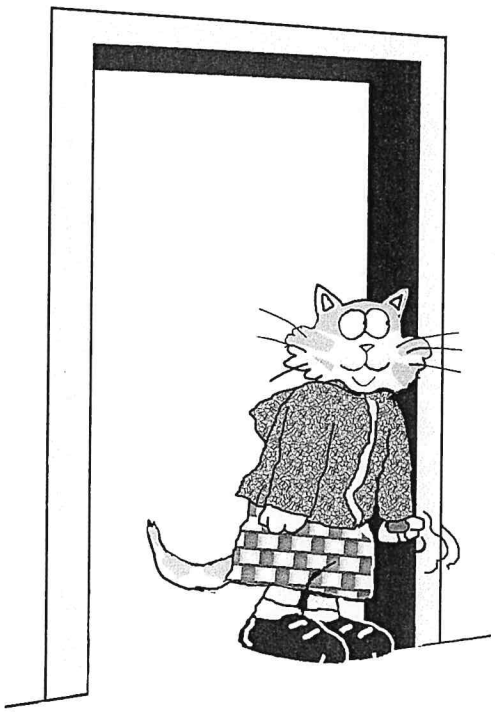
Harold went into the garage. "I don't believe this!" he groaned. His bike had a flat tire. Harold sat down and began to hit his head.

"Think, think," he whispered. "How am I going to get to school now?"

Science Investigation #22

The Floating Arm

So you think you have control over your arms?
Check that thought after you try this short experiment.



What to Use:

– a door frame or wall
– your arm
– a friend to amaze

What to Do:

1. Stand about 6 inches (15 centimeters) from a wall with your shoulder toward the wall.
2. Move your hand (the arm closest to the wall) and press the back of it against the wall. Push hard, as if you were trying to move the wall. Do not let your body exert pressure, just your hand and arm. Don't bend your elbow.
3. Count slowly to 30 as you continue to press your hand against the wall.
4. Move away from the wall and let that arm hang at your side. Relax the arm and let it do what it wants.

- WHAT HAPPENED?

- WHY DO YOU THINK THIS HAPPENED?

- WHY IS THIS INVESTIGATION CALLED "THE FLOATING ARM"?

Name_____