

M.S.E.S. 4th Grade

NTI Packet

Days 1-5

Directions:

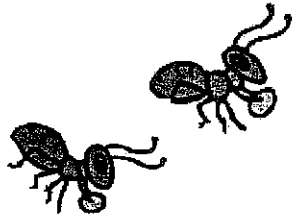
Read the instructions on each page. Then, answer all the questions in complete sentences. Underline and number where you find your answers in the articles. Be sure to show your work on every math problem.

****Make sure you are only completing the assignments labeled for that day. Ex: Reading: NTI Day 1, Math: NTI Day 1, Science: NTI Day 1**

****If you need help, please contact me through Remind between the hours of 8:00 AM to 3:30 PM.**

****The completed lessons are to be returned to me the day we return to school.**

Name: _____



All For One

by Liana Mahoney



A hundred or two, maybe three - perhaps more -

Parade all together on Spring's meadow floor.

They're carrying treasure, yet staying in line,

To bring home a treat so their mother can dine.

A little one wonders, "What WILL the queen say?"

Another one answers, "Hooray! Crumby day!"

But most remain silent - too happy to talk.

They're focused instead on their victory walk.

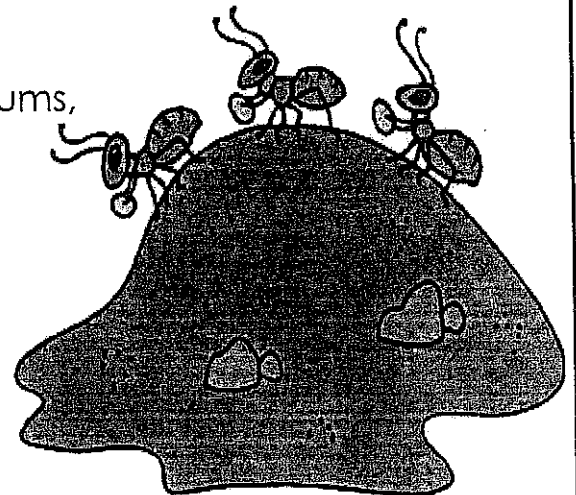
Each step beats a rhythm of musical glee,

The sound of the joy of the Ants' jubilee.

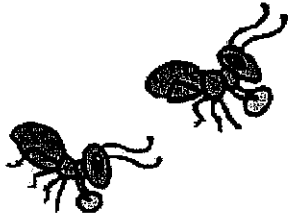
They're marching as if to the beating of drums,

And all for one triumph:

Discovering crumbs.



Name: _____



All For One

by Liana Mahoney



1. Line three of the poem says, "They're carrying treasure, yet staying in line." What is the treasure that the ants are carrying?

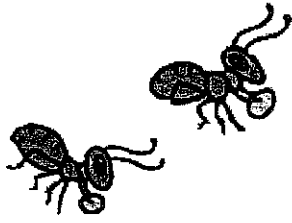
2. Describe one part of this poem that could **not** happen in real life.

3. Describe one part of this poem that **could** happen in real life.

4. Which choice describes the poet's technique for writing this poem?
 - a. She gives detailed information to describe how ants gather food.
 - b. She gives the ants human characteristics.
 - c. She makes the lives of ants seem mysterious.
 - d. She uses scientific terms to describe the ants.
5. According to the words in the poem, a line of ants is similar to...
 - a. a football team
 - b. a bunch of grasshoppers
 - c. hungry bears
 - d. a marching band
6. Write another appropriate title for this poem.

Now try this: Read the poem aloud to a friend. Try to read it clearly, in an expressive tone of voice.

Name: _____



All For One



Poem by Liana Mahoney

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

1. _ r _ _ _ _ _

clue: something valuable

1. _____

2. _ _ _ t _ r _

clue: success

2. _____

3. _ _ _ h _ _ _

clue: synonym for maybe

3. _____

4. _ _ _ i _ e _

clue: cheerful celebration

4. _____

5. _ i _ _ _ e _ _ n _

clue: finding

5. _____

6. _ _ a d _ _

clue: field of grass

6. _____

7. _ _ l _ n _

clue: quiet; not making noise

7. _____

Math : Day 1

Match each statement with the equation that describes it. Use drawings to solve.

- ① 15 is 3 times as many as 5.

- ② 6 groups of 8 items is the same as 48 items.

- ③ 36 is 4 times as much as 9.

- ④ Some number is 5 times as much as 7.

- ⑤ Some number is equal to 32 plus 4.

- ⑥ 4 rows of 6 flowers is equal to some number of flowers.

Equations

$$36 = 4 \times 9$$

$$n = 5 \times 7$$

$$15 = 3 \times 5$$

$$4 \times 6 = n$$

$$6 \times 8 = 48$$

$$n = 32 + 4$$



Tell how to show an unknown number in an equation.

Do Animals Look Like Their Parents?

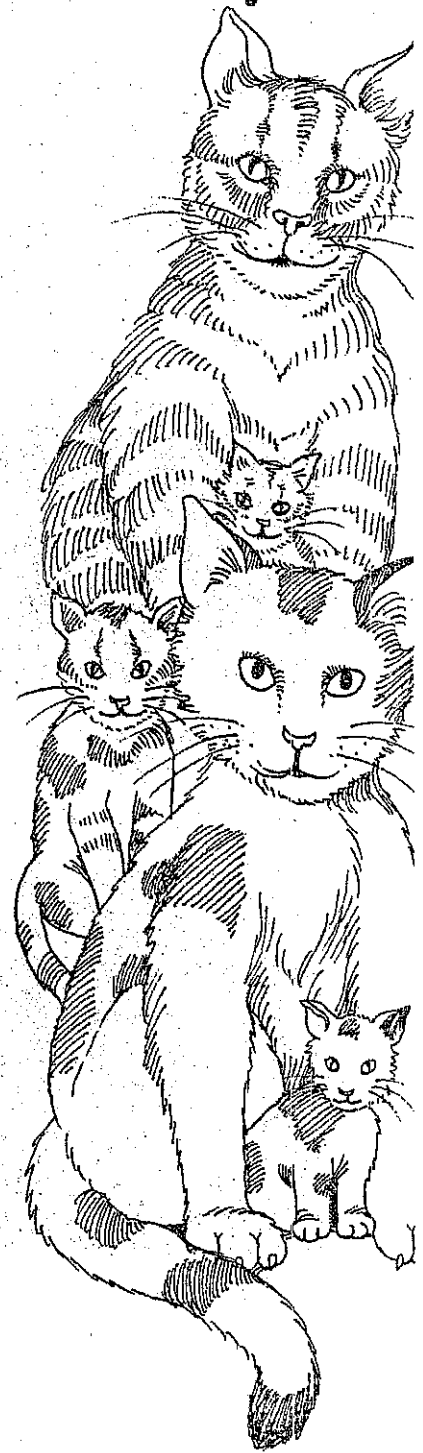
Science
Day 1

Name _____

A baby animal grows up to look a lot like its mother and father. But there are always some differences. When a white cat with black spots and an orange cat have kittens, each kitten will look like a tiny cat. Some of the kittens might be black and white. But some might be orange. Some might even be white with black and orange spots. Some of the kittens might grow up to be bigger or smaller than their parents. Some might have tails that are longer than those of their parents.

When a blue jay lays eggs, all of the baby birds will look like blue jays. Some of the baby birds might grow up with stronger wings and bigger bodies than those of their parents. Others might have shorter legs.

The same thing happens when two people have children. Many children look like their mothers or fathers. But no child ever looks exactly like his or her parents. Two tall parents with brown eyes and brown hair might have a tall child who has brown hair and blue eyes. The same parents might have a short child who has brown eyes and brown hair. There are many ways in which children may look like their mothers or fathers. They might have the same kind of smile. They might have the same shaped chin, hands, knees, or ears. But there are just as many ways for children to look different from their mothers or fathers.



These kittens look like cats. But the kitten in the middle might grow up to be bigger than its mother or father.

A.

Underline the correct word or words in each sentence.

1. Baby animals grow up to look (a lot, exactly) like their parents.
2. When two dogs become parents, (all, some) of the puppies will look like dogs.
3. It is (possible, impossible) for a baby blue jay to be bigger and stronger than its parents when it grows up.
4. There are (many, only a few) ways that children can look different from their parents.

B.

Write one way that each animal might be different from its parents when it grows up.

1. puppy

2. baby spider

3. baby blue jay

C.

Write one or more sentences to answer the question.

In a family of four puppies, one is bigger and stronger than the others. How might being bigger and stronger help this puppy?

Name: _____

RUNNING: SPORT OR WAY OF LIFE?

by Kelly Hashway

You flip through the channels for the fourth time and realize that once again there's nothing on television that grabs you. Not a problem! Throw on some running shoes and comfortable clothes and go for a run.

One of the coolest things about the sport of running is that you don't need expensive equipment. All you need is a good pair of running shoes and a safe environment. But just because you don't need much equipment don't be fooled into thinking the sport of running is easy. No one wakes up and decides to run a marathon without training. Running requires discipline, perseverance, and concentration. It's a sport that's good for your body and mind.

Running strengthens your heart, lungs, and muscles. It develops coordination and makes you more aware of your body. Running also gives you energy by increasing your oxygen intake, and it improves your immune system so you don't get sick as easily. It can even help you stay more focused in school because exercise helps you to think more clearly.

How do you get involved in the sport if you don't know much about it? Most schools offer cross-country and track programs, but there are also running clubs open to all ages. A simple Internet search can help you find some in your area. The programs show you how running can offer competition or just be for fun. They also teach runners to set realistic goals and take care of their bodies.

Runners have great respect for each other because they know how difficult the sport can be. If you go to a race, you'll see people cheering for *all* the runners, from the first place finisher to the last place finisher. Running isn't always about how fast you are or how far you're going. It's about getting out there and doing it. Participation is more important than competition, and effort is recognized over talent.

If you're looking for more than just a sport, running may be the perfect choice for you.





RUNNING: SPORT OR WAY OF LIFE?

by Kelly Hashway

1. What is the main idea of the fourth paragraph in this article?
- a. Running is one way to keep your body healthy.
 - b. You don't need expensive equipment to be a runner.
 - c. Running for fun is better than running in a competition.
 - d. There are many running clubs and teams you can become involved in.

2. **Benefits of Running for Your Health and Mind**
(Find Four Benefits Mentioned in the Passage)

1. _____	2. _____	3. _____	4. _____

3. What is the author's main purpose for writing this passage?
- a. to give historical information about runners
 - b. to teach readers how to become great runners
 - c. to persuade readers to try running
 - d. to compare and contrast running and watching television

4. Tell whether each sentence is a fact or opinion.
Write the word fact or opinion on each line.

_____ Running is not an easy sport.

_____ Many schools offer cross country or track programs.

_____ Running develops coordination and makes you more aware of your body.

Name: _____

Simple Machines

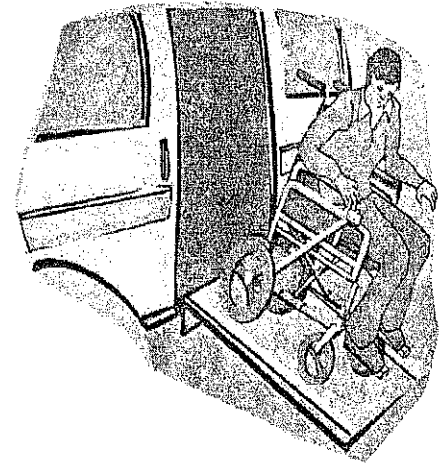
by Sandie Lee

Science
MTE
Day 2

We use simple machines every day. They help us lift, pull, transport, and hold objects together. Without these very basic machines our lives would be much harder.

Amp Up Your Ramp - *Inclined Plane*

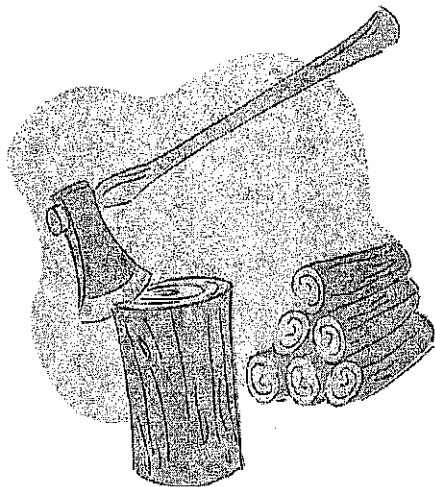
Imagine trying to carry a heavy box up a ladder. It would probably be difficult and perhaps even dangerous. But if you were to place a long sheet of plywood on the ladder and push the box up, it would take less effort and energy.



You can see people using inclined planes, or ramps, all the time in their daily lives. Have you ever seen a delivery truck with a long ramp? The ramp helps people load or unload products more easily. Have you ever seen a building with a ramp that leads to a door? This is an inclined plane for people using wheelchairs.

A ladder leaning on a wall is an inclined plane. Stairs are sloped to make an inclined plane. The bottom of your bathtub is also an inclined plane because it is sloped to force water toward the drain.

Get the 'Wedge' Edge

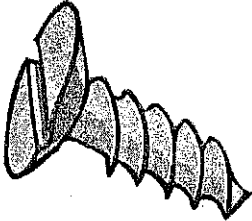


What has at least one slanting side and ends in a sharp edge? A wedge. A wedge is similar to a ramp, but instead of moving an object from here to there, it pushes it apart. The narrower the wedge is, the easier it is to divide something.

Wedges can be sharp like axes, knives, or shovels. They can also be round, like the tip of a nail or the tines of a fork. Just imagine how difficult it would be to eat dinner without the help of knives and forks to cut and pick up your food.



Even a basic screw is a simple machine. A screw is made of two simple machines combined together. An inclined plane is wrapped around a wedge to form a screw. This wrapped inclined plane is called a thread.



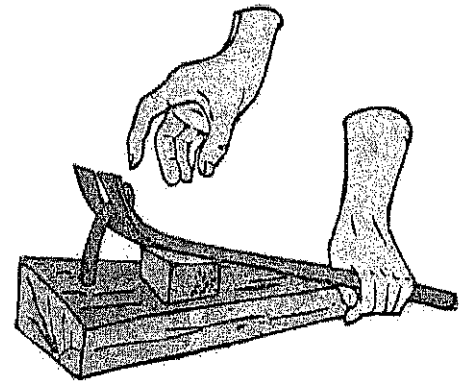
When the thread of a screw is wide, it will be harder to turn. If it is narrow, it will be easier to turn but it will take longer to fasten.

Jars, bottles, and their lids are also considered screws. Drill bits are screws too.

The Clever Lever

Levers are able to help us lift heavy objects. It's easy to recognize a lever - many tools with a handle attached are considered one.

Levers consist of a stick and a fulcrum (*fuul-kruh-m*). The fulcrum is the point on which the lever moves. By changing the position of the fulcrum you will either gain or lose power - the closer the fulcrum is to the object the easier it is to lift.



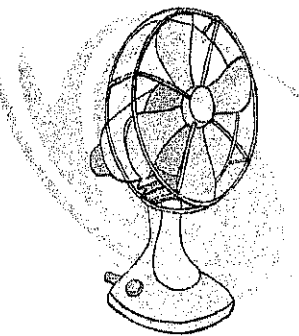
Seesaws, shovels, and crow bars are all levers.

The Wheel Deal

The wheel and axle is one of the oldest simple machines around. In fact, a wheel was found dating back 5,500 years. A true simple wheel and axle machine consists of a rod (axle) secured to a wheel.

A water faucet has a wheel and axle on it. The knob that you turn is the wheel. When you turn the knob, you are also turning an axle that it's attached to.

A fan is another example of a wheel and axle. The fan blades (wheel) are attached to a rod (axle). When the motor is turned on, the fan blades will spin and produce a nice cooling breeze on a hot day.

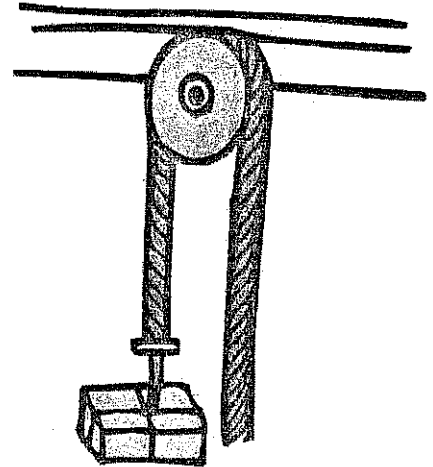


Pull That Pulley

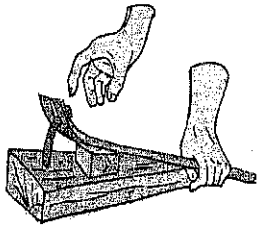
Take a wheel with a groove running around and it. Add an axle and a rope or cable. Put them together and you have a pulley.

When you work with a pulley, lifting becomes a cinch. Why? The rope on each side of the pulley supports half of the entire weight of the object being lifted. With one pulley, you only need to use half the force required to lift the object.

Imagine raising a flag to the top of the pole without a pulley. How would you do it? You could take a ladder and climb to the top and fasten the flag. You could use a ramp and push it to the top. The easiest way would be to simply attach it to a pulley and hoist away. Letting pulleys do the job is safe, simple, and fun!

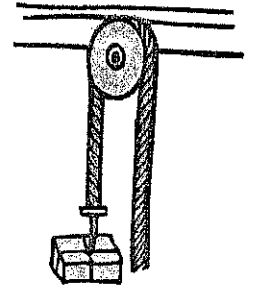


Name: _____



Simple Machines

by Sandie Lee



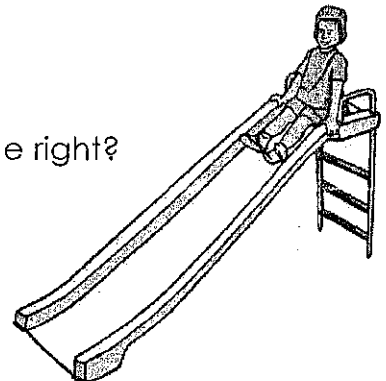
1. What type of simple machine is found on a water bottle cap?
- a. lever
 - b. pulley
 - c. wheel and axle
 - d. screw

2. How is a wedge like an inclined plane? How is it different?

3. On which type of simple machine would you find a fulcrum? Explain what a fulcrum is.

4. Which is an example of a wheel and axle?
- a. shovel
 - b. water faucet knob
 - c. seesaw
 - d. crow bar

5. What type of simple machine is shown in the picture to the right?
- a. inclined plane
 - b. pulley
 - c. wheel and axle
 - d. wedge



Math: Day 2

Write an equation to describe each statement. Use drawings to solve.

- ① 18 items separated into 3 equal groups is equal to some number of items in each group.

$$\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

- ② 4 groups of 5 items is the same as 20 items.

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

- ③ 18 is 3 times more than 6.

- ④ Some number divided by 5 is 4.

- ⑤ 5 groups of 5 items plus 1 item is the same as 26 items.

- ⑥ 393 is three times as much as some number.

- ⑦ 654 divided by some number is 218.

- ⑧ Some number minus 6 is equal to 20 minus 19.



Tell how you know whether to add or multiply.



RUNNING: SPORT OR WAY OF LIFE?

Vocabulary Activity

Part 1: Reread "Running: Sport or Way of Life?" by Kelly Hashway. As you read highlight the following vocabulary words in the story.

lungs

coordination

immune system

heart

concentration

marathon

realistic

Part 2: Match each vocabulary word on the left with its definition on the right.

_____ 1. lungs

a. long-distance running race

_____ 2. coordination

b. protects your body from bacteria and disease

_____ 3. immune system

c. reasonable

_____ 4. heart

d. body organ that puts oxygen into your blood

_____ 5. concentration

e. ability to think deeply

_____ 6. marathon

f. ability to move your body's muscles skillfully

_____ 7. realistic

g. muscle that pumps blood through your body

Part 3: Use a vocabulary word from the list to complete each sentence.

8. Drinking juice with vitamin C strengthens your _____.

9. When Joey said he could run 50 miles, his friend said, "That's not _____."

10. I could barely breathe when I finished running the _____.

11. The nurse was monitoring her patient's _____ rate.

12. The writer was lost in _____ as he thought about what he will write next.

Name: _____

A Monster out of a Molehill

by Neal Levin

One morning when Dominick woke up, his eyeglasses were missing. He was certain he'd put them safely on his bedside table as any mole who wore eyeglasses would do. Then he remembered he might have left them outside last night after gazing at stars. Or maybe by the pond when he took them off for an evening dip. In fact, they could be anywhere.



Dominick climbed out of his molehill and looked around. He didn't find his eyeglasses. But what he did find was a terrible, hairy monster bursting out of the next molehill over, and it was charging right toward him!

What could be worse? Without his eyeglasses, Dominick couldn't even tell what kind of monster this was, but it looked like something he had never seen before. Dominick started running, but he stumbled and tripped over a tree root. The monster was following him. It waved its sturdy arms and wiggled its long, sharp claws. Dominick forced himself up and scooted onward.

After a few moments, he stopped to catch his breath. He stole a glance at the creature. Were there two heads? Three heads? He couldn't tell. Nor did he care to stay and count. He hustled forth again.

The monster was approaching quickly. Dominick saw it had big, squiggly tentacles coming out of its long, pointy snout. And it was shouting his name.

"Dominick," it yelled, "let me catch up to you."

"No!" Dominick cried. He ran even faster but slipped on a rock and stumbled face-first into a puddle of mud. The monster was almost upon him. Dominick couldn't bear it any longer. He sat up and covered his face, only allowing himself to peek between his fingers. The monster's arm was reaching forward, and there was something in its hand.

"My eyeglasses," Dominick said.

He took them and placed them on carefully, as any mole who wore eyeglasses would do, and the monster came into focus. Only it wasn't a monster at all. It was his star-nosed friend Sebastian.

"I found these on your porch last night and I didn't want anything to happen to them," he said.

Dominick gave a sigh of relief. He realized his buddy was just looking out for him. It couldn't have been any clearer.

Name: _____

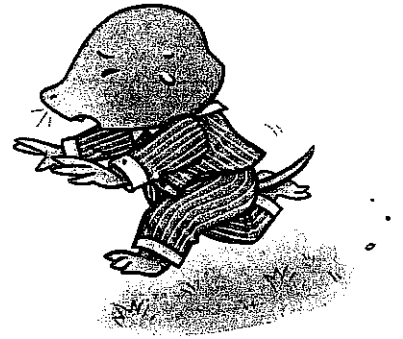
A Monster out of a Molehill

by Neal Levin

1. When Dominick discovers his eyeglasses are missing from his bedside table, he thinks about where they could be.

Place a check mark () next to each place where Dominick thinks his eyeglasses could be.

- Outside, where he was gazing at the stars
- By the pond, where he went for an evening dip
- Near the oak tree, where he sat in the shade
- Anywhere



2. When Dominick climbs out of his molehill, does he find his glasses right away? What does he find?

3. At the end of the story, what does Dominick discover he is running away from?

4. Who is the second character in the story? _____

5. The last sentence of the story, "It couldn't have been any clearer," has two different meanings. Explain what they are.

Name: _____

A Monster out of a Molehill

by Neal Levin



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

1. e _ _ e _ _ a _ _ s e _ _

hint: lenses you wear to help you see clearer

2. _ _ o _ _ e

hint: a small burrowing mammal

3. _ _ _ a n _ _ e

hint: a quick look

4. s _ _ o u _ _

hint: the nose and mouth of an animal

5. f o _ _ u _ _

hint: clear view

6. _ _ e _ _ i e _ _

hint: a feeling of ease after being tensed or worried

7. t e _ _ t a _ _ l e _ _

hint: flexible limbs

8. p o _ _ _ _ _

hint: a covered sitting area in front of a house

Name: _____

A Monster out of a Molehill

by Neal Levin

In the story "A Monster out of a Molehill," Dominick is scared of something he can't see clearly. When he puts on his eyeglasses, he realizes he didn't need to be scared after all.



On the lines below, tell about a time when you were scared of something. Why were you afraid? Did anything help you to overcome your fear?

Math : Day 3

Write an equation to represent each problem. Then solve.

- 1 There are 8 books in each box.
There are 3 boxes. How many books are there in all?

- 2 There are 2 times as many shaded triangles as white triangles. There are 3 white triangles.
How many triangles are shaded?

- 3 Mike made 4 rows of counters.
He put 6 counters in each row.
How many counters did he use?

- 4 A doll costs \$17. A doll dress costs 8 dollars less. How much does the doll dress cost?

- 5 Chris returned cans to the recycling center and got 5 cents for each can. Chris got \$4.50 in all. How many cans did Chris return?

- 6 A T-shirt costs \$6. A sweatshirt costs 5 times as much. How much does the sweatshirt cost?

- 7 Lori has 562 beads. She needs 30 beads to make a necklace. How many necklaces can she make?

- 8 Kate has a \$10 bill. She bought a pencil case that cost \$3.62. How much change did she get back?



Tell how you know where to place the symbol for the unknown.

Name _____

NTI Day 3

Animals usually look like their parents. For example, a young grasshopper grows up to be an adult grasshopper. A young grasshopper has many things in common with its parents. It has six legs and a hard exoskeleton. It jumps through the air and eats plants. We say that these are the **characteristics** of grasshoppers.

Grasshoppers do not choose to have six legs or an exoskeleton. They do not learn to jump through the air or eat plants. Grasshoppers **inherit**, or get, these characteristics from their parents. Characteristics like these are passed down from parents to children.

Humans are also like their parents. Many children look like their parents in some ways. They may have long or short legs like their parents. A child may have a turned-up nose like her father or freckles like her mother. Children may have the same eye color and hair color as their parents. Children inherit these characteristics from their parents.

However, humans do not inherit all of their characteristics from their parents. Often, humans learn new characteristics. For example, you may know how to play the piano. So, one of your characteristics is being able to play the piano. You did not inherit this characteristic from your parents, even if they know how to play the piano. Instead, you learned how to do this. Characteristics that are learned are not passed down from parents to children.



Hair color is an inherited characteristic. Being able to skate is a learned characteristic.

Name: _____

Funny Faces

by Kelly Hashway

Liz stared at the large envelopes in Mr. Mason's hand. The school pictures were here. Liz had been so excited on picture day. She'd just gotten a new hair cut and a brand new sweater. Her mom had even let her wear lip-gloss. Now she'd finally get to see how the picture turned out.



"When you get your envelope, please locate the spare photo for the classroom display," Mr. Mason said.

Mr. Mason had a Wall of Fame board in the back of the classroom. Every year he posted pictures of his students and had them sign their names.

Mr. Mason placed an envelope face-down on Liz's desk. "Retakes are on Wednesday," he whispered.

Retakes? Liz panicked. *How awful could it be?* She took a deep breath and lifted one corner of the envelope. All she could see was her hair. Nothing wrong there. No stray pieces standing on end or anything like that. Liz raised the envelope a little higher, and then she saw it. Her eyes were half-closed! She slammed the envelope back down before anyone else could see.

Liz looked around the room. A few others had their envelopes face-down on their desks too.



"Mr. Mason, can I ask the class a question?"

Liz said.

Mr. Mason nodded. "Be my guest."

Liz stood up. "Does anyone else have a bad picture? My eyes are half-closed, and I look kind of funny."

"I'm sneezing in my picture," Jeff said.

"Nothing can be funnier than that."

"My hair is sticking up on one side," Melanie said.

Liz looked at the Wall of Fame. "I have an idea. What if we start a new bulletin board, one for funny pictures? We could call it Funny Faces." She took a picture from her envelope and walked over to the Wall of Fame. She taped her picture on the blank board next to it. Mr. Mason handed her a marker, and Liz wrote "Funny Faces" in big letters.

Without saying anything, Jeff and Melanie posted their pictures next to Liz's. Several others added their pictures too.

Liz looked at the photos and laughed. "Mr. Mason, you might want to tell the photographer that there's going to be a long line for retakes."

Name: _____

Funny Faces

by Kelly Hashway



1. When did Liz first suspect that there might be something wrong with her picture?

- a. when her teacher announced that pictures had arrived
- b. just after she looked at her photo
- c. just before she looked at her photo
- d. when she looked at the Wall of Fame board

2. Liz knew that some of her classmates also had bad pictures even before she asked them. How could she tell?

3. Which words best describe Liz?

- a. somewhat sneaky
- b. proud and quiet
- c. quick thinker
- d. not cooperative

Why did you choose the choice above to describe Liz?

4. Which word best describes Mr. Mason?

- a. strict
- b. busy
- c. excited
- d. understanding

Why did you choose the choice above to describe Mr. Mason?

Math: Day 4

Write factor pairs for the rectangles.

1



$2 \times 5 = \underline{\hspace{2cm}}$

$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

$5 \times 2 = \underline{\hspace{2cm}}$

$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

The factors of 10 are _____, _____, _____, and _____.

2

List the factors of 5.



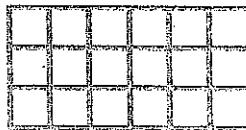
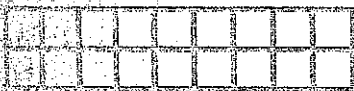
$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

The factors of 5 are _____ and _____.

3

List the factors of 18.



4

List 4 multiples of 6.

List 4 multiples of 8.

5

List 4 factors of 6.

List 4 factors of 8.



Tell what a factor is. Tell why you can draw more than one rectangle for some numbers.

Name: _____

Funny Faces

By Kelly Hashway



The words below are scrambled words from the story. Unscramble each word and write it on the line.

1.

c	o	e
l	t	a

Clue: find; search for

2.

o	e	p	h	h	o
r	t	p	a	r	g

Clue: person whose job it is to take pictures

3.

a	o	l	s	r
s	c	o	m	

Clue: place for learning

4.

e	w	t	r
s	e	a	

Clue: warm, wool shirt

5.

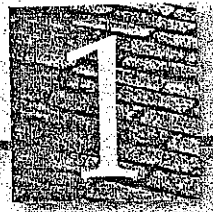
a	c	p	d
e	i	k	n

Clue: suddenly felt fearful

6.

i	p	d	s
a	l	y	

Clue: an exhibit or visual presentation



What Is Light?

Science

NTS Day 4

Name _____

Imagine a world that had no colors. It wouldn't be as beautiful as the world we see every day. And colors are important to living things. Colors help an animal hide. Colors can also help animals find food. For example, butterflies and many other insects get food from flowers. They find flowers using color.

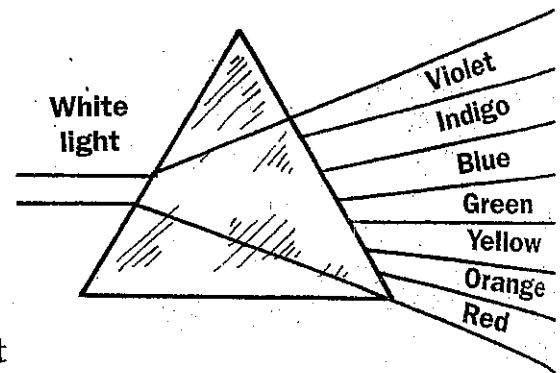
We see colors because light has colors in it. Bright light, like light from the sun or from a bright lightbulb, is called **white light**. White light is made of red, green, blue, and other colors mixed together. It is light that gives every object its color.

When you turn on a lightbulb, the light from the bulb travels out and hits each object in the room. Each object takes in part of the light, and bounces some light back to your eyes. We see only the part of light that bounces back. So if a chair looks red to us, it is because the chair bounces back the red part of light. For the same reason, if the chair looks green, it is because the chair bounces back the green part of light.

You can see the colors that are in white light by shining light through a special piece of glass called a **prism**. As the light moves through the prism, it bends. When the light bends, the colors in the light spread out.

A rain shower can be like a giant prism in the sky. When sunlight goes through the raindrops, it bends. The colors in the sunlight spread apart. You see the colors that make up sunlight as a rainbow.

Light Passing Through a Prism



A prism splits apart the different colors that blend together to make white light.

A.

Draw a line to complete each sentence.

1. White light is made when raindrops act like a giant prism.
2. A prism can come from the sun or from a lightbulb.
3. A rainbow is a special piece of glass that spreads the colors of light.

B.

Write the missing word or words in each sentence.

1. Many insects find flowers using _____.
(prisms, raindrops, color)
2. White light is made of _____.
(the color white, many colors mixed together, three colors mixed together)
3. A blue chair bounces back the _____ part of light.
(white, blue, yellow)
4. A prism _____ light to spread it apart.
(bends, stops, bounces back)
5. The colors of a rainbow are the colors that make up _____.
(air, sunlight, water)

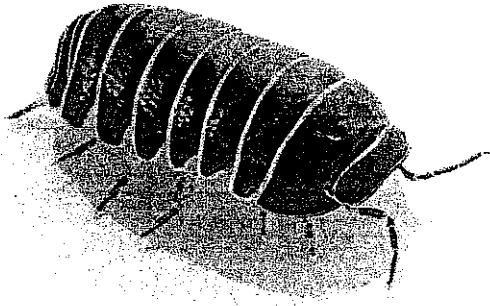
C.

Write one or more sentences to answer the questions.

Imagine you are in a room lit by a special lightbulb. The white light from this bulb is made up of all the colors except red. Would you be able to see the color red in this room? Why or why not?

Roly-Poly Pill Bugs

by Cynthia Sherwood



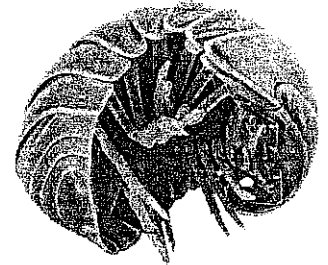
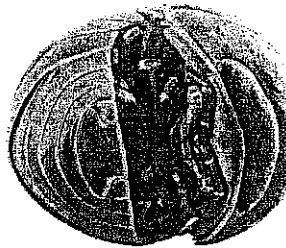
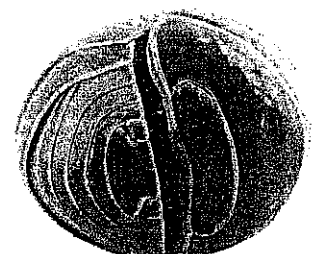
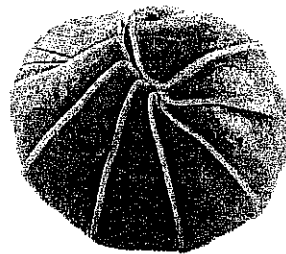
Some people are afraid of bugs such as spiders or beetles. But there is one bug that just about everybody likes—pill bugs. If you ever pick one up, you know why its nickname is "roly-poly." A pill bug rolls up into a tight little ball to protect itself. This bug is scared of you, not the other way around!

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

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

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

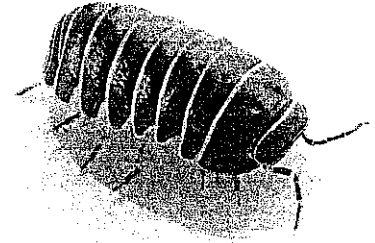
Pill bugs are a little like owls, too. Pill bugs are nocturnal, meaning they are most active at night. That is when they most like to wander around and look for food. And just like earthworms, pill bugs help break down plants in the soil. Pill bugs aren't just nice bugs. They are also interesting ones!



Name: _____

Roly-Poly Pill Bugs

by Cynthia Sherwood



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

2. Where would you be least likely to find a pill bug?

- | | |
|-----------------------------------|------------------------------------|
| a. under a large rock near a pond | b. under a log near a downspout |
| c. in a vegetable garden | d. hiding in the roots of a cactus |

3. How is a pill bug like a kangaroo?

4. What does the word "molting" mean?

- | | |
|-----------------------------|--------------------------|
| a. active at night | b. shedding its skin |
| c. crawling in a damp place | d. crawling like a snake |

5. How are pill bugs and earthworms alike?

6. Which statement from the article is an opinion?

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

Math : Day 5

Complete each chart. Then list the first 5 multiples for each number.

1 0×3 0	1×3 3	2×3 6	3×3 _____	4×3 _____
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factors of 3: _____, _____ multiples of 3: 0, 3, 6, _____, _____

2 0×5 0	1×5 5	2×5 _____	3×5 _____	4×5 _____
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factors of 5: _____, _____ multiples of 5: 0, 5, _____, _____, _____

3 0×7 _____	1×7 _____	2×7 _____	3×7 _____	4×7 _____
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factors of 7: _____, _____ multiples of 7: _____, _____, _____

4 0×10 _____	1×10 _____	2×10 _____	3×10 _____	4×10 _____
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factors of 10: _____, _____, _____, _____

multiples of 10: _____, _____, _____, _____, _____



Tell how you can skip count to find multiples.



Math: Day 2

Name _____

Day 5

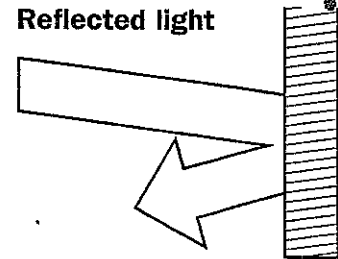
Light is a kind of energy. Light travels in a straight line until it strikes an object. When it strikes an object, light can be **reflected**, **absorbed**, or **refracted**.

You have learned that you could see a red chair if the chair bounced the red part of light back to your eyes. When light bounces back from an object, it is called **reflected** light. Light can be reflected in different amounts. How much light an object reflects depends on how smooth the object is and what color it is. Smooth objects, like mirrors, reflect light very well. White or other bright objects also reflect light well.

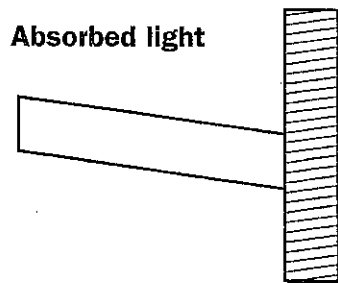
Rough objects or ones that are black or dark do not reflect light as well. These objects have taken in, or **absorbed**, more light than they have bounced back. If you were in a dark cave and pointed the beam of your flashlight at a wall of dark, rough rocks, you would still find it difficult to see. The rocks in the cave would have absorbed much of the light from your flashlight. If the cave walls were made of light, smooth rocks, they would not absorb as much light, and you would find it easier to see.

Some objects allow light to pass through. For example, light passes easily through water and glass. But when light passes through water or glass, it slows down. When it slows down, light bends. When light bends, we say it is **refracted**. You can see how light refracts if you put a pencil in a glass of water. Look at the part of the pencil that is under water. It will look bent.

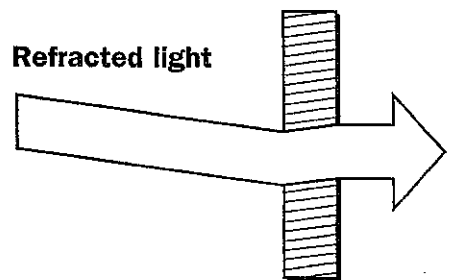
Reflected light



Absorbed light



Refracted light



When light hits an object, it can be reflected, absorbed, or refracted.

A.

Write the word that best completes each sentence.

absorbed reflected refracted

1. Light that bounces back from objects is called _____ light.
2. When an object takes light in, the light is _____.
3. Light that passes through an object and bends is _____.

B.

Write True if the sentence is true. Write False if the sentence is false.

- _____ 1. Light is a kind of energy.
- _____ 2. Light usually travels in circles.
- _____ 3. Smooth, white objects reflect light well.
- _____ 4. Dark, rough objects absorb light.
- _____ 5. Light doesn't pass through glass.
- _____ 6. When light passes through water, the light is refracted.

C.

Write one or more sentences to answer the questions.

Pretend there is a hole in the road. Your job is to make a marker to keep cars away from the hole. The marker needs to be easy to see at night when cars shine their headlights on it. You can make a smooth, bright yellow marker, or a rough, dark blue one. Which one would be better? Why?
