



At Home Learning Resources

Grade 4 - Week 12

Get Counted
2020 Census

The Census starts in April
More info | www.2020census.gov | Job opportunities

How to take the 2020 Census

Online Phone Mail

Why it matters

Federal funding For local programs and organizations	Better planning For roads, schools, healthcare and emergency services
Determines representation In Congress and the state legislature	Helps businesses Locate factories and stores, recruit employees and conduct market research

Shape your future
Your community, your voice

<https://2020census.gov/>

Grade 4 ELA Week 12

All previous activities, as well as other resources can be found on the Lowell Public Schools website: <https://www.lowell.k12.ma.us/Page/3800>

This week completes a focus on fiction reading and realistic fiction narrative writing. Your child should be reading, writing, talking and writing about reading, and working on exploring new vocabulary each week.

Reading: Students need to read each day. They can read the text included in this packet and/or read any of the fiction books that they have at home, or can access online at Epic Books, Tumblebooks, Raz Kids, or other online books. All resources are on the LPS website. There is something for everyone.

Talking and Writing about Reading: As students are reading, they can think about their reading and get ready for summer. Students can also reflect back on the school year and write a bit about what they liked or learned.

Writing: Students will finish working on realistic fiction narratives this week. These resources are charts with examples to help your child write. They are available online in an interactive form with video tutorials here: [Grade 4 Narrative Writing Choice Board](#). Click on the images/starbursts to watch the video tutorials. This writing should finish this week. Students will be writing, then making it even better by revising, writing some more, and at the end, fixing it up by editing.

Word Work: Students can work on learning new vocabulary words using clues in the text. Students can choose any words they find in their reading.

My Summer Reading Plan



Books/Authors I want to read:











Where I will get books:

Borrow from the library

Read online

Trade books with friends

Buy at a bookstore

Buy Online

Other _____

Where I will read:

In my bedroom

In the living room

Outside

In my car

At the beach

Other _____

Log all of the books that you read. If you read 1 book, write it down. If you read 100, write them down. You can write them here. If you run out of room, add another piece of paper.

OR

Looking for an even easier way to log your books, do it online. [Click here](#) to enter your book titles online. Your school will keep a list of all of the books that you read.

Remember, you only need to log your books on paper **or** online. NOT BOTH!

Happy Summer Reading!

Growing Up Green



Written by Claire Daniel
Illustrated by Stephen Marchesi

www.readinga-z.com



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Off to Siberia

Samantha pitched her pajamas into her suitcase and slammed it shut as if it contained a three-headed monster. It was crammed full of the shorts, sweatshirts, jeans, socks, and sneakers that she would need for the next eight weeks.

She glanced outside her window into the backyard next door. Mrs. Gonzalez was planting flowers, and Mr. Gonzalez was raking leaves. Mrs. Gonzalez opened a bag of store-bought **compost** and spread it on top of the soil around the pink blossoms.

Samantha heard her brother, Hal, calling her from downstairs. "Sam, your laundry is done!"

Samantha ran to the laundry room to find her favorite pink T-shirt. In her haste to grab it out of the dryer, she knocked over two boxes piled high with empty soda bottles.

"Sometimes I just hate recycling!" she yelled.

"At least you get a vacation from it," her older brother muttered.

"I might as well be going to Siberia!" groaned Samantha.



"Maine isn't so bad," Hal said, sticking his head in the laundry room. He was leaving for college in the fall, so he was working at an office to make money over the summer.

"I'll be slaving away at my summer job while you're relaxing at Nannie's." He jumped as if he were making a jump shot on a basketball court and tossed an empty water bottle into the trash.

"If Mom finds this empty bottle in the trash instead of the recycling bin, you'll be in Siberia yourself," Samantha warned.

He picked up the bottle, threw it up in the air, and snatched it in front of Samantha's face. "I know, Einstein. Cool your jets."

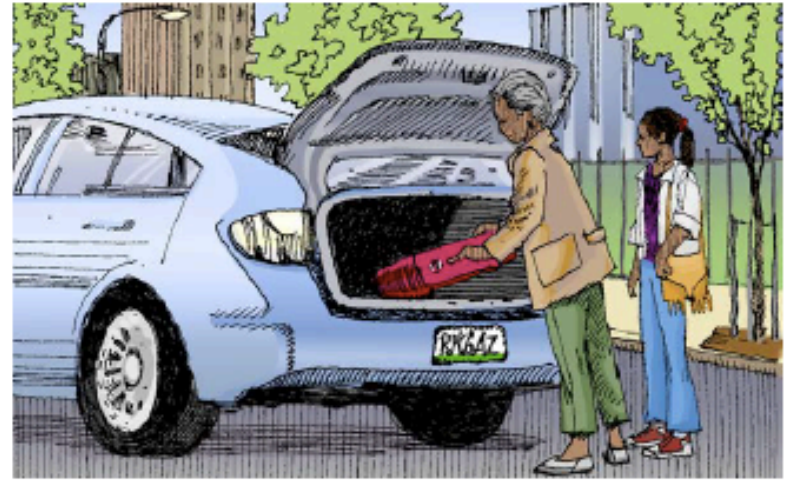




At breakfast, Samantha ate chunks of mango with delight. Her mother knew she loved mangoes, so Samantha suspected that the treat was her way of saying she was sorry.

All winter, the family had talked about Samantha going to summer camp. Her summer was going to be jam-packed with horseback riding, swimming, and mountain biking. But then the economy crashed, and her parents didn't have the money to send her to camp. Instead, Samantha was being sent to her grandmother's house in Maine for the summer.

After breakfast, Samantha grabbed the empty milk carton and threw it in the recycling bin. At least her trip to Maine would finally give her a break from her mom's tough "green rules" about recycling and saving energy.



When Samantha arrived in Maine, her grandmother picked her up at the airport. Samantha laughed when she saw that her grandmother drove a hybrid car, just like her parents. After hugging her grandmother, Samantha said, "Are you a 'green nut' like my mom?"

Nannie shrugged, "Not exactly."

"Great," Samantha said, "because I am sick and tired of all the rules in my house! 'Turn out that light,' 'Turn down the air conditioning,' and 'Walk so we don't have to take the car!' My mom is driving us all crazy!"

Nannie didn't comment, but she smiled slightly. Soon it was dark, and the motion of the car gently put Samantha into a deep sleep.

Nannie's House

Samantha's bedroom was on the top floor of Nannie's house, and the morning sunshine pried open her eyes. She heard digging outside and saw Nannie in the garden.

Samantha was amazed at all the flowers she saw outside her window. There were clumps of pink, blue, and yellow everywhere. Behind a fence, vegetables filled rows of raised garden beds. Nannie walked back toward the house, and Samantha quickly dressed and ran downstairs.

Her grandmother rinsed strawberries and put them in a bowl next to the milk and cereal.

"Do you have mangoes instead?" Samantha asked.

"Mangoes in Maine?" Nannie frowned. "Can you imagine how much energy it takes to ship a mango from Peru to here?"

Samantha was speechless. Nannie continued, "I buy my food locally. I bought these strawberries for you at the farmer's market yesterday. They're sweeter and fresher than fruits from faraway places."

Samantha tasted the berries, and her grandmother was right—they tasted terrific.

After breakfast, Samantha followed her grandmother into the garden and was amazed at the asparagus, spinach, lettuce, and broccoli plants. Nannie obviously had a green thumb!

Samantha watched her grandmother dump vegetable and fruit scraps into a wire bin. "What's that?" Samantha asked.

"It's my new compost bin."



Nannie rolled the wheelbarrow to a different bin filled with something that looked like rich, dark soil, "This is **mature** compost."

Nannie filled the wheelbarrow with the dark-brown substance. Then she rolled it over to an empty raised bed intended for green-bean plants.

"Make yourself useful," her grandmother said. She handed Samantha a shovel. As her grandmother emptied the wheelbarrow, Samantha mixed the compost into the dirt.

Samantha remembered Mrs. Gonzalez and how she used compost around her flowers at home. "I thought compost kept weeds out. Why are we mixing it in the dirt?"

"It makes the soil rich. Compost sticks to the soil particles and helps them hold onto the **nutrients** that make plants grow."

After mixing the compost into the soil, Nannie showed Samantha how to plant green beans. Then they watered the garden before gathering spinach and lettuce for a salad.

After lunch, Nannie suggested that they go for a hike. Samantha opened the door to the pantry and asked, "Where's the water?" Nannie pointed to the spigot.

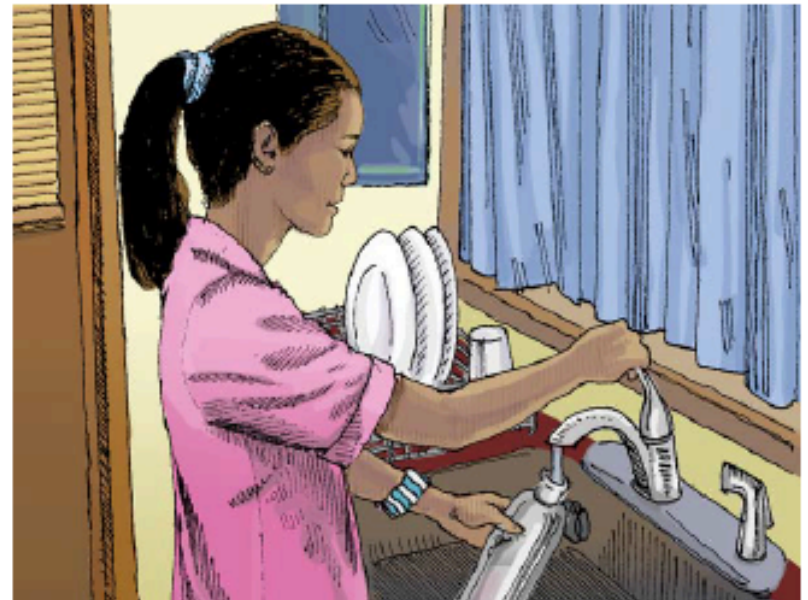
"No, I mean the bottled water for the hike."

Nannie tossed her a metal bottle. "Fill that. My water comes from a spring. Besides, if you use that, there'll be one less plastic bottle to recycle."

Samantha groaned. She had come from a **fanatical** recycling family to a situation so green that even recycling was frowned upon!

Samantha teased, "You're even greener than my mom, aren't you?"

"You could say that," Nannie said with a grin. "I'm waiting for my hair to turn green any day. Yours might, too, with a little luck."



Living Green

That first day was like many more that followed. In the mornings, they worked in the garden. In the afternoons, they went hiking or biking. It wasn't summer camp, but it wasn't torture, either.

Samantha also learned just how green her grandmother was, but her greenness, if you could call it that, was just the way she lived. Nannie pinned her clothes on a clothesline to dry. She plugged her television and lamps into power strips and shut them off at night. She mowed her lawn with a hand mower instead of a gas-powered one. Instead of using harsh chemicals to clean her house, she used baking soda and vinegar.

One day, Samantha's grandmother set up a farm stand at the end of her driveway and sold some of the vegetables from the garden. At night, she collected the money that people left in the cash box.

"It pays for the garden supplies," her grandmother said.

Samantha noticed that her forehead was creased. "What's wrong, Nannie?" she asked.



Her grandmother smiled and relaxed her muscles. "Nothing—I was just thinking." But she didn't sound very convincing.

Samantha wondered what was wrong. Was she doing something wrong, or was something else worrying her grandmother? Something was definitely not right.

The Seed of an Idea

One afternoon, after a trip to the beach, Samantha's grandmother stopped by the hardware store. She purchased yards of hardware cloth, which is a wire mesh used for fencing.

"That will be \$21.36," the clerk said.

Nannie pulled a twenty-dollar bill from her wallet and began digging in her purse for the rest of the money. Quickly, Samantha pulled out two dollars from her jeans pocket.

"Need this?" she asked.

"Thank you," her grandmother said. "I'll pay you back."

Samantha noticed that the wrinkles were back on Nannie's forehead. Then it occurred to Samantha that perhaps her grandmother was short of money. That would explain the wrinkles!



The next day, Samantha and Nannie loaded up the car with the hardware cloth, a bucket full of kitchen scraps, a bag of grass clippings, and a bale of straw. They drove to an outdoor flower garden, where ten members of a gardening club were waiting for them.

Nannie spoke to the group of men and women. "I'm so happy that you've asked us to teach you how to compost." She looked at her granddaughter. "This is my assistant, Samantha. She can tell you how compost helps your garden."

Samantha was shocked when everyone turned to listen to her, but she remembered what her grandmother had taught her. She spoke up loud and clear. "Compost adds richness to your soil. Gardeners call it 'black gold' because it is so precious. You can spend five dollars a bag for it, but we can teach you how to make it for free."

For the next hour, Samantha and Nannie showed the group how to compost. At the end of the demonstration, one woman gave Nannie a check. Samantha remembered Mrs. Gonzalez tending her flowers back home, and an idea formed in her mind. If it worked, she might go to camp next year!

The Vegetable Thief

During July, more and more vegetables came up in the garden. Samantha and her grandmother were busy tending the garden, and two days a week they gave composting demonstrations to homeowners and gardening groups.

The garden was thriving. The beans grew long, and the raspberries turned deep red. The yellow squash popped up overnight, and the cucumbers seemed to grow an inch longer each day. Every morning, Samantha harvested vegetables and fruits, taking what they didn't need to the farm stand.



One day, Nannie asked Samantha to collect the money at the stand. Samantha opened the cash box, and there was only twenty-five cents inside. She searched the stand in case some money had fallen under the table, but there wasn't any.

Someone was stealing their **produce**! Samantha grabbed the cash box and ran back into the house. When she told Nannie, her grandmother just said, "Hmm." Samantha was confused. If Nannie needed money, why was she so unconcerned?

"Nannie! Someone is stealing from you!"

"Maybe," she said. "Maybe not."

"There's no maybe! We sold a whole table full of squash, raspberries, and lettuce today. And there's only a quarter in there."

"Maybe someone needs the food," Nannie said.

"But it's stealing!"

"They probably can't afford to buy fresh vegetables."

Samantha said, "But it isn't right. Whoever took the food knew they were stealing. They must feel guilty. Hungry or not, people shouldn't steal."

Nannie smiled, "Then let's not let them. I have an idea."

They worked together to make a new sign for the farm stand. This time, the sign asked for voluntary **contributions** only. People could pay whatever they wanted for the fruits and vegetables they bought.

Samantha said, "But Nannie, don't you need the money that the farm stand makes?"

Nannie's brow wrinkled up again. "Money's not everything." Then she laughed, "Call it part of being green, which you so lovingly tell me I am!"

"How is giving food away being green?"



"Think of it this way. The earth provides us with fruits and vegetables. We have too many, so we give some to people who need them. If they can pay, they pay. If they can't, they can't. Times are hard now, and if I can share my garden with someone who doesn't have one, then I'm happy."

Samantha studied her grandmother's face. It was still lined with worry. Was she really serious that she didn't need the money?

End of Summer

In early August, Samantha went to check the cash box. Instead of a quarter or a dollar, there was a fifty-dollar bill inside! Samantha gave the money to her grandmother, who didn't seem surprised. She just said, "Hmm" and smiled. Neither of them knew who had put the money in the box, and Samantha realized that it didn't matter. With the money they had collected, the garden supplies had been paid for, and there was a little extra left over.

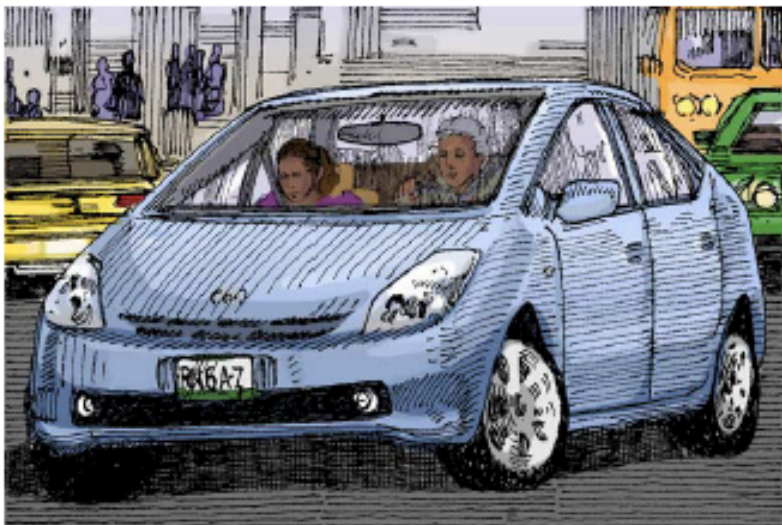
Soon it was time for Samantha to return home and get ready for school. She packed her bags and realized for the first time that she hadn't felt homesick or bored all summer. She had been too busy!

On the way to the airport, Samantha decided to tell her grandmother about her money-making idea. She said, "You know I wanted to go to camp this summer."

The wrinkles returned to Nannie's forehead. Samantha quickly added, "I had a great time, and I have a new idea. When I get back home, I'm going to teach the people there how to compost. I can save people money and help protect the environment."

Nannie laughed. "That's a wonderful idea! Green really does run in our family."

A few minutes before Samantha boarded the airplane, her grandmother handed her an envelope.



"What's that?" Samantha asked.

"Look inside," Nannie said.

Samantha opened the white envelope and saw a stack of ten- and twenty-dollar bills. She stammered, "I can't—"

"Yes, you can," her grandmother said. "You helped me all summer with the garden and the composting workshops. Now you can go to camp next summer."

"But you need this money!" Samantha blurted.

Her grandmother laughed. "No, I don't! I have all the money I need."

"But—but—you always looked so worried this summer."

"I was worried," Nannie said. "I was worried about you. I was worried that you were miserable staying with me instead of doing exciting things at camp."

Samantha dropped her bags and hugged her grandmother.

"I had an amazing summer! I wouldn't trade this summer for all the camps in the world!"



Nannie said, "Honey, that is the loveliest thing anyone has ever told me."

Samantha said, "You taught me a lot. You taught me that being green isn't just about recycling and turning off lights. It's about working with the earth and helping other people."

Samantha grabbed her bags and walked toward the gate. "You'll come visit us in the city, right?"

"Yes!" Nannie said, blowing her a kiss.

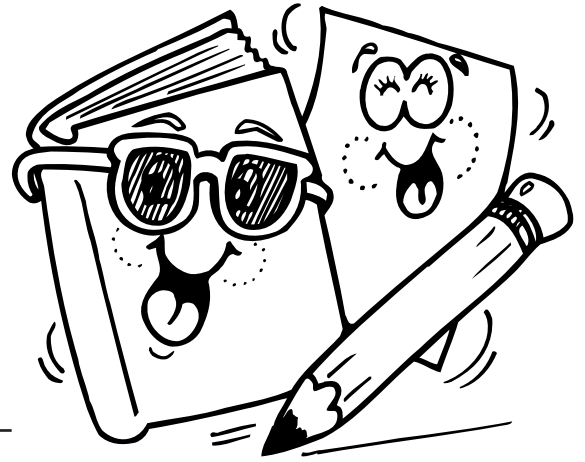
Samantha said, "Just do me one favor. Next year, plant some mango trees. If anyone can get them to grow in Maine, you can."

Nannie laughed and waved good-bye.

Glossary

compost (<i>n.</i>)	a mixture of decaying organic material, such as vegetables, plant clippings, or newspapers (p. 4)
contributions (<i>n.</i>)	payments made to support a cause (p. 19)
environment (<i>n.</i>)	all the conditions affecting an organism in a specific area, including plants, animals, water, soil, weather, landforms, and air (p. 21)
fanatical (<i>adj.</i>)	obsessive (p. 12)
hybrid car (<i>n.</i>)	a fuel-efficient car that uses an electric motor recharged by a conventional engine powered by fossil fuel (p. 8)
mature (<i>adj.</i>)	fully developed (p. 11)
nutrients (<i>n.</i>)	substances in food or soil that living things need to stay healthy and grow (p. 11)
produce (<i>n.</i>)	fresh fruits and vegetables (p. 18)

An End of the Year Letter to My Teacher!




Date


Dear _____

Signed


Grade 4 Realistic Fiction Writing Choice Board - Visit the online option for an interactive board with tutorials. Use the anchor charts to help you write your own realistic fiction story.



Getting Ideas for Fiction






Plan Your Fiction Story

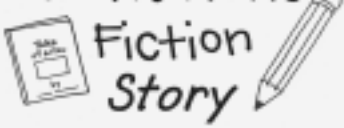


Developing Characters


Develop a strong

- > story idea 
- > character(s) 
- > setting 


How to Write a Realistic Fiction Story




Study ways other authors make stories better - try some!



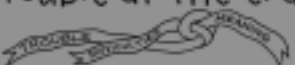
Draft possible story arcs. Revise until it feels just right.




Draft scene by scene, only using summary when needed.




Create trouble in the story, resolving that trouble at the end.



Edit!



How to Find Ideas for Fiction






Getting Ideas for Fiction

Elexa


Elexa is an 11 year old girl that wants to be the head cheerleader, but her best friend also wants to, so will she do it in the cost of her friendship. She has noticed that the boy that was following her around (Mark) is now following Lexie, what will happen next?


- Observe the world or reread entries. Mine your notebook for story ideas.



- Ask, "What books do I wish existed in the world?"



Let this question lead you to invent a character with traits, struggles, actions.


- Think about an issue that is important to you and create a character who struggles with that issue.



Things are really hard right now for a boy named Marquis. He really loves his big brother, but lately it seems like Erick doesn't hang out with him very much. And, Mom seems really worried-stressed all the time. One night, Marquis heard Erick and Mom talking about money and they seemed upset. Erick was saying he could work more at the grocery store, and he told Mom not to worry. But Mom wants Erick to work on his school work, too. Marquis is worried about both of them. What will happen to the family?

Plan Your Fiction Story

Beginning The Conflict Starts

I sat in reading class, and started to doodle all over my reader notebook. Even when the class was reading out loud, it's like all I could hear was the ticks & ticks, each second, lifeless thingy-thingy. Closer together, I tell him! I think to myself. My seat class is with Mr. Man. I think I hope I am strong enough to tell him.

On my way to the lunch room, I was so busy getting what I'd want that I didn't realize I had bumped into Max. He said, I'm so sorry Elex. I tell him I don't need any one helping, or even following me.

Middle The Conflict Gets Worse

He came closer! Lexie whispered "OH NO," then I shouted, "RUN!" We tried to run as fast as we could, but we knew that wasn't fast. We ran for the door, trying to slip into class without being noticed by a teacher or just a hall monitor.

End Story Resolution

I had bumped into Max, jumping on his back, he said sorry Elex, and kept on with his busy. He ran then back to where I was. I think, but you know that following around thingy-thingy. I looked into the eyes that had once been jelly that had now turned to eyes filled with tears. With no human remain I could tell he is sad and I feel the same great way, why?

I thought back to when I was the new kid, I didn't do any smart, exact things, but I don't it was hard to make friends. I thought to myself, how could I do this to him? But the deal is done. I live away, too sad to look, that I looked back and realized it was the only person left in the hall way.

Develop Characters by Thinking about Their:

- collections
- favorite clothes
- special places on earth
- treasures
- worries
- quirks
- secrets
- relatives
- ways of walking, talking, and gesturing
- rituals for waking up, going to sleep
- meals and mealtimes
- best friends
- phone calls

Developing Characters

Elex	
inside	outside
wants to be a leader	brown hair, curly
Cares about her friends	good at math
Worries a lot but doesn't tell anyone	talks a lot
misses her grandma	has a dog
	collects sea glass
	Favorite color is green

Develop a strong

- > story idea
- > character(s)
- > setting

Advice For Developing a Character

- Start with whatever you've decided matters to you about your character.
- Put together a character so that all the parts fit together into a coherent person.
- Reread often, asking, "Do these different things make sense within one person? Do they fit together in a believable way? Are these traits here for a reason?"

I ~~thump~~ thump down the stairs into the kitchen "Hurry, we are having tomato soup tonight." "Mom, I hate tomato soup!" I yelled.

inside	outside
wants to be a leader	brun hair, curly
care about her friends	just math talks a lot
worries a lot but doesn't tell anyone	has a dog
misses her grandma	collects seaglass
	favorite color is green

Draft possible story arcs.
Revise until it feels just right.

Story Arc

Draft #1

Draft #2

Draft #3

Draft scene by scene, only using summary when needed.


Draft

Once there lived a little girl. Her name was Elizabeth and she lived with her mom and dad. Elizabeth was in first grade. One day her class went on a trip. The class had to sit in a circle. When the class had been there for about half an hour or so, the lady that was working with Elizabeth and her class brought out a snake. Elizabeth, who was terrified of snakes, started wiggling at the snake. She heard the lady tell the class that they may touch the snake. Elizabeth got even more terrified when the lady with the snake reached her. Elizabeth felt her hand touch the snake. Oh how frightened she was! Poor Elizabeth thought the snake would bite her hand off or poison her! Little Elizabeth was delighted when she didn't feel the snake harming her. The rest of Elizabeth's trip was a lot of fun. When Elizabeth got home, she told her parents all about the trip. She also exaggerated the snake part a bit, but her parents knew that

Rewrite

Elizabeth felt her hand touch the long, mean-looking snake. Its gleaming, coal-black eyes sparkled in the light as it stared at Elizabeth, not even blinking. The snake kept sticking its blood-red, forked tongue out of its mouth. Elizabeth felt cool or something like scales under her fingers. Elizabeth knew that it was the snake's rough skin. She wasn't surprised that it was rough because she thought that snakes are rough and so is their skin. Elizabeth noticed the pattern on the snake's back. How she liked it! It was also the only thing she liked about the snake: both its gleaming and sparkling diamonds on the same kind of coal-black surface.

A Storyteller's Voice Shows, Not Tells.

It . . . 

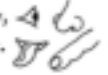
••• describes actions that took place.



••• uses dialogue.



••• describes what we saw, smelled, tasted, or felt.



••• describes images around the storyteller.



Study ways other authors make stories better - try some!

Setting Description

The Wolves Go to Birmingham - 1963
By Christopher Paul Curtis

It was one of those super-duper cold Saturdays. One of those days that when you breathed out your breath kind of hung frozen in the air like a hunk of smoke and you could walk along and look exactly like a train blowing out big, fat, white puffs of smoke.

It was so cold that if you were stupid enough to go outside your eyes would automatically blink a thousand times all by themselves, probably so the juice inside of them wouldn't freeze up.

Question

The Tail of Emily Windsnap
by Liz Kessler

Can you keep a secret? Everybody has secrets, of course, but mine's different, and it's kind of weird.

Action

Dead End in Norvelt
by Jack Gantos

School was finally out and I was standing on a picnic table in our backyard getting ready for a great summer vacation when my mom walked up to me and ruined it.

Dialogue

On My Honor
by Marion Dane Bauer

"Climb the Starved Rock Bluffs? You've gotta be kidding!" Joel's spine tingled at the mere thought of trying to scale the sheer river bluffs in the state park. He looked at Tony square in the eye. "Somebody got killed last year trying to do that! Don't you remember?"

Tony shrugged, popped a wheelie on his battered BMX, spun in place.



Studying Mentor Texts for Our Own Writing

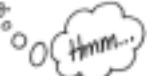
Select a part of the story that works for you.



Name specifically what the author did on the page.



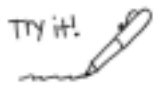
Suppose why the author did this particular thing.



Look at your own writing and find places where it would help the text to try something similar.



TRY IT!



Create trouble in the story,
resolving that trouble at the end.



Tammy Revises her Ending

Ending 1
Then I looked closely
Something was missing.
"Ranger, where is your coat?"
"Ranger gave me a shy
smile and a quick wink.
I have no idea."

Ending 2
I looked down the trail, and
there in the distance, I saw
a brown speck darting towards
me. "Is that Ranger?" Why
call I see his striped
coat?" I wondered.
I looked again. "Yes, it's
Ranger." He stopped at my
feet, gave me a shy smile and
a quick wink. "Ranger, where is
your coat?"
"What coat?"

Key Questions Fiction
Writers Consider in
Revising Endings

- Can the reader see evidence of the main character's evolution?



- Does my ending make sense or come out of nowhere?



- Are the loose ends tied up? Have I answered the reader's key questions?



- Have I revealed everything I need to for the story's purposes?

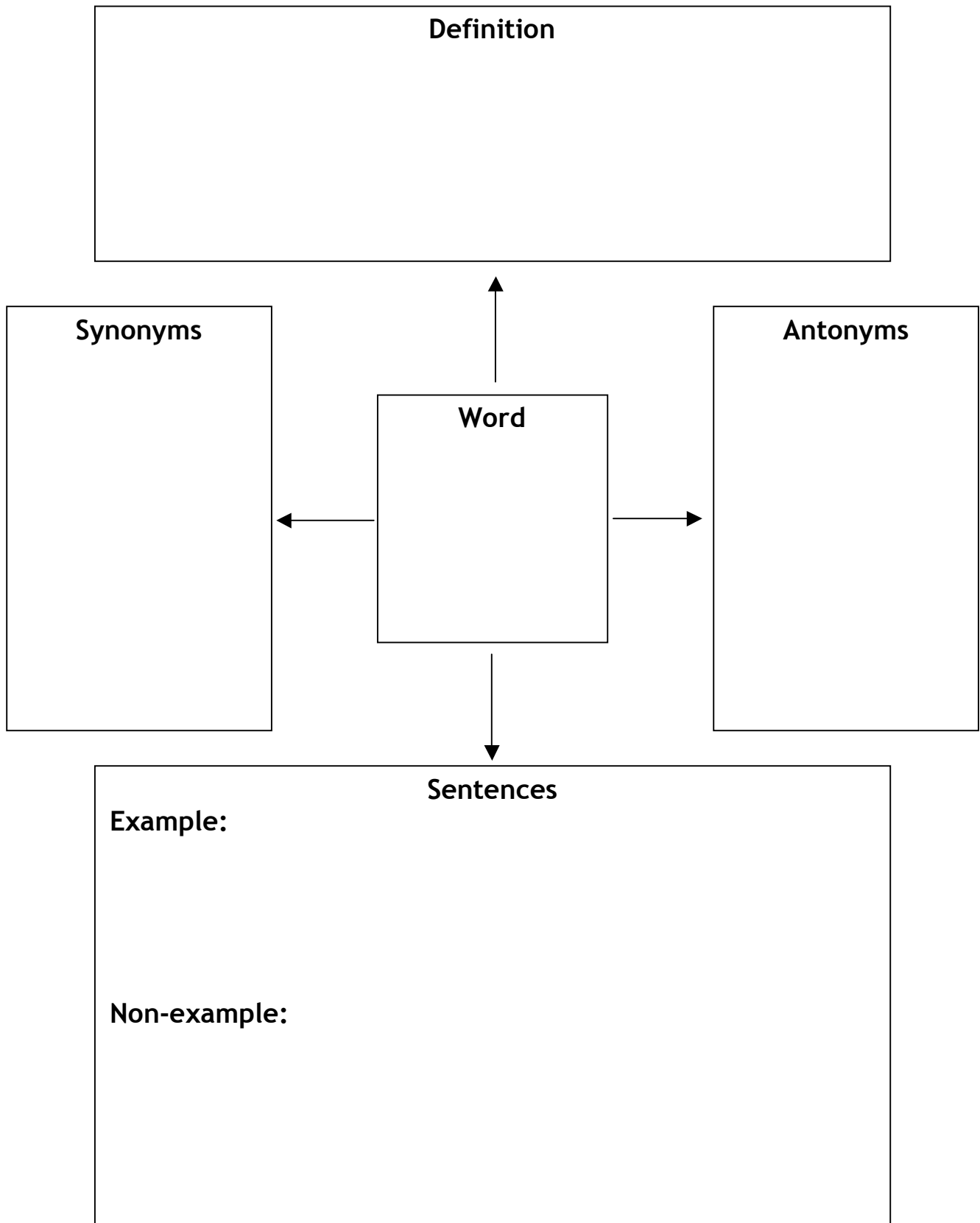


Editing Checklist

- Read for sense and missing words.
- Edit for punctuation.
- Check for capital letters at the beginning of new sentences, when using proper nouns, or when giving someone's title.
- Check that known, high-frequency words are spelled correctly.
- Read work aloud to check for fragments and run-on sentences.
- Check every word to be sure it is spelled correctly.

the morning
Norm "if he could go to the park"
Norm said yes. When they
got there, Spike was playing tag with
a dog. The dog hid in the bushes.
So Spike could not find him. Spike
looked all around the park. But he
did not find him. He just realized his
mother was not home on the bench.
He walked in the city to look for
his mom. He walked up and the
street. He saw a stop
sign. The cop said "look out for
here with out a parent." "I
can't find my parent. I will
find her for you. Not I will
find her for you." Spike ran
towards the street. It is a
stop sign. Spike did not stop, he
ran around the corner and
saw a car. He ran past a car
to go back to the street.
When he got out of the car,
the car was green and a car
was riding down the street.
The kid almost got hit
by a car because he was
just standing there.

New Vocabulary Word: _____



A

Number Correct: _____

Mental Division

1.	$20 \div 2 =$	
2.	$4 \div 2 =$	
3.	$24 \div 2 =$	
4.	$30 \div 3 =$	
5.	$6 \div 3 =$	
6.	$36 \div 3 =$	
7.	$40 \div 4 =$	
8.	$8 \div 4 =$	
9.	$48 \div 4 =$	
10.	$2 \div 2 =$	
11.	$40 \div 2 =$	
12.	$42 \div 2 =$	
13.	$3 \div 3 =$	
14.	$60 \div 3 =$	
15.	$63 \div 3 =$	
16.	$4 \div 4 =$	
17.	$80 \div 4 =$	
18.	$84 \div 4 =$	
19.	$40 \div 5 =$	
20.	$50 \div 5 =$	
21.	$60 \div 5 =$	
22.	$70 \div 5 =$	

23.	$68 \div 2 =$	
24.	$96 \div 3 =$	
25.	$86 \div 2 =$	
26.	$93 \div 3 =$	
27.	$88 \div 4 =$	
28.	$99 \div 3 =$	
29.	$66 \div 3 =$	
30.	$66 \div 2 =$	
31.	$40 \div 4 =$	
32.	$80 \div 4 =$	
33.	$60 \div 4 =$	
34.	$68 \div 4 =$	
35.	$20 \div 2 =$	
36.	$40 \div 2 =$	
37.	$30 \div 2 =$	
38.	$36 \div 2 =$	
39.	$30 \div 3 =$	
40.	$39 \div 3 =$	
41.	$45 \div 3 =$	
42.	$60 \div 3 =$	
43.	$57 \div 3 =$	
44.	$51 \div 3 =$	

A

Number Correct: _____

Division with Remainders

1.	$8 \div 2$	Q = _____ R = _____
2.	$9 \div 2$	Q = _____ R = _____
3.	$4 \div 4$	Q = _____ R = _____
4.	$5 \div 4$	Q = _____ R = _____
5.	$7 \div 5$	Q = _____ R = _____
6.	$8 \div 5$	Q = _____ R = _____
7.	$5 \div 3$	Q = _____ R = _____
8.	$6 \div 3$	Q = _____ R = _____
9.	$8 \div 4$	Q = _____ R = _____
10.	$9 \div 4$	Q = _____ R = _____
11.	$2 \div 2$	Q = _____ R = _____
12.	$3 \div 2$	Q = _____ R = _____
13.	$7 \div 3$	Q = _____ R = _____
14.	$8 \div 3$	Q = _____ R = _____
15.	$9 \div 3$	Q = _____ R = _____
16.	$8 \div 6$	Q = _____ R = _____
17.	$9 \div 6$	Q = _____ R = _____
18.	$5 \div 5$	Q = _____ R = _____
19.	$6 \div 5$	Q = _____ R = _____
20.	$8 \div 8$	Q = _____ R = _____
21.	$9 \div 8$	Q = _____ R = _____
22.	$9 \div 9$	Q = _____ R = _____

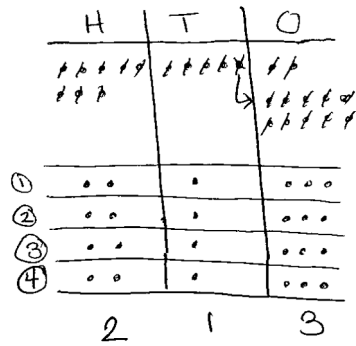
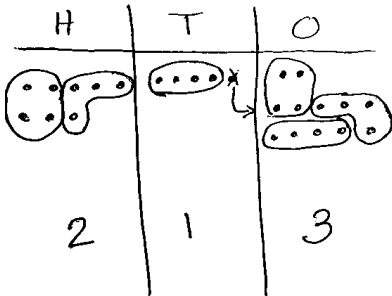
23.	$6 \div 2$	Q = _____ R = _____
24.	$7 \div 2$	Q = _____ R = _____
25.	$3 \div 3$	Q = _____ R = _____
26.	$4 \div 3$	Q = _____ R = _____
27.	$6 \div 4$	Q = _____ R = _____
28.	$7 \div 4$	Q = _____ R = _____
29.	$6 \div 6$	Q = _____ R = _____
30.	$7 \div 6$	Q = _____ R = _____
31.	$4 \div 2$	Q = _____ R = _____
32.	$5 \div 2$	Q = _____ R = _____
33.	$9 \div 3$	Q = _____ R = _____
34.	$9 \div 5$	Q = _____ R = _____
35.	$7 \div 7$	Q = _____ R = _____
36.	$9 \div 9$	Q = _____ R = _____
37.	$13 \div 4$	Q = _____ R = _____
38.	$18 \div 5$	Q = _____ R = _____
39.	$21 \div 6$	Q = _____ R = _____
40.	$24 \div 7$	Q = _____ R = _____
41.	$29 \div 8$	Q = _____ R = _____
42.	$43 \div 6$	Q = _____ R = _____
43.	$53 \div 6$	Q = _____ R = _____
44.	$82 \div 9$	Q = _____ R = _____

Division without remainders

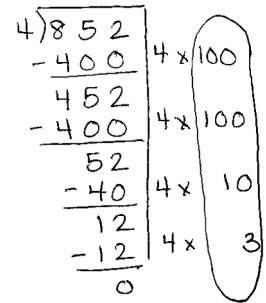
Find the quotient of each division expression. Some strategies are shown in the example below. Do you have another strategy that works? Try a strategy that makes sense to you and check your answer by multiplying the quotient by the divisor.

852 ÷ 4

Place value chip/disc models

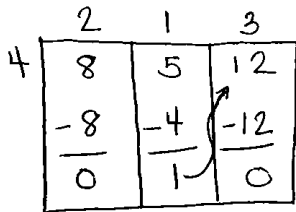


Partial Quotient

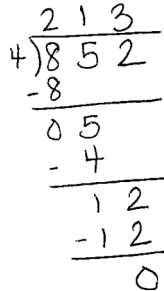


$$100 + 100 + 10 + 3 = 213$$

Place value box

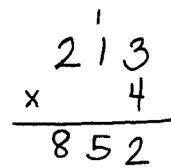


Standard Algorithm



CHECK:

$$213 \times 4$$



1. $92 \div 4$

2. $426 \div 3$

3. $165 \div 5$

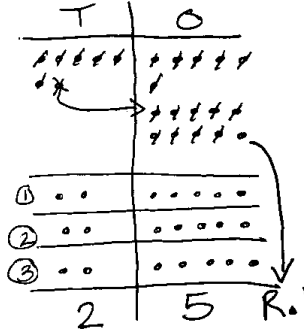
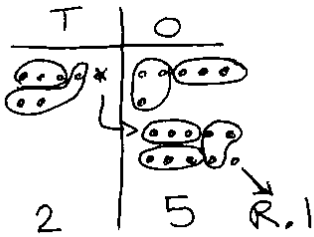
4. $6738 \div 6$

Division with remainders

Find the quotient of each division expression. Some strategies are shown in the example below. Do you have another strategy that works? Try a strategy that makes sense to you and check your answer by first multiplying the quotient by the divisor, then add the remainder.

$$76 \div 3$$

Place value chip/disc models

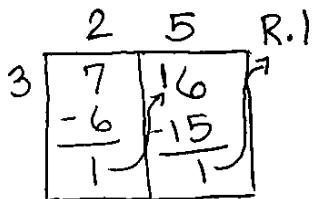


Partial Quotient

$$\begin{array}{r}
 25 \text{ R.1} \\
 3 \overline{) 76} \\
 \underline{-30} \quad 3 \times 10 \\
 46 \\
 \underline{-30} \quad 3 \times 10 \\
 16 \\
 \underline{-15} \quad 3 \times 5 \\
 1 \text{ remainder}
 \end{array}$$

$10 + 10 + 5 = 25$

Place value box



Standard Algorithm

$$\begin{array}{r}
 25 \text{ R.1} \\
 3 \overline{) 76} \\
 \underline{-6} \\
 16 \\
 \underline{-15} \\
 1
 \end{array}$$

CHECK:

Step 1: multiply the quotient by the divisor

$$25 \times 3 = 75$$

Step 2: add the remainder

$$75 + 1 = \underline{76}$$

1. $86 \div 4$

2. $355 \div 2$

3. $537 \div 6$

4. $4762 \div 3$

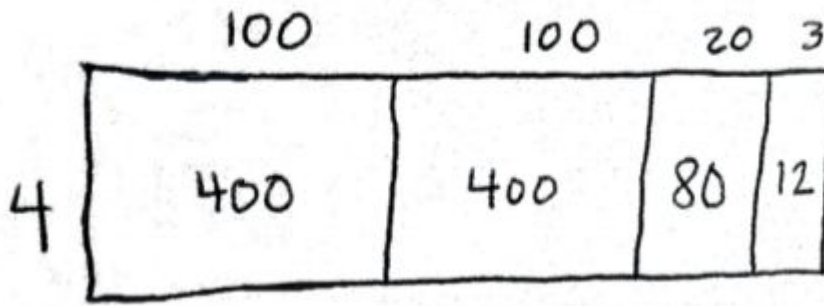
Monica bought a package of 435 party favors to give to the guests at her birthday party. She calculated that she could give 9 party favors to each guest. How many guests is she expecting?



Part A: Estimate. What is a reasonable estimate? Why?

Part B: Solve.

Aleah solved the following division problem by drawing an area model.



Part A: What division problem did she solve?

Part B: Show a number bond to represent Aleah's area model, and represent the total length using the distributive property.

Delicious Doughnuts

How many doughnuts in the box?



What is your estimate?

What is an estimate that is too high? Why?

What is an estimate that is too low? Why?

How many doughnuts in the box?



Solve:

How many doughnuts in the box?



Solve:

Least Product

Directions: Using the digits 1 to 9 at most one time each, fill in the boxes to make the least product.

1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---



First attempt

What did you learn from this attempt? How will your strategy change on your next attempt?

Second attempt

What did you learn from this attempt? How will your strategy change on your next attempt?

Third attempt

What did you learn from this attempt? How will your strategy change on your next attempt?

Fourth attempt

What did you learn from this attempt? How will your strategy change on your next attempt?

Least Quotient

Directions: Using the digits 1 to 9 at most one time each, fill in the boxes to make the least quotient.

1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---

First attempt

What did you learn from this attempt? How will your strategy change on your next attempt?

Second attempt

What did you learn from this attempt? How will your strategy change on your next attempt?

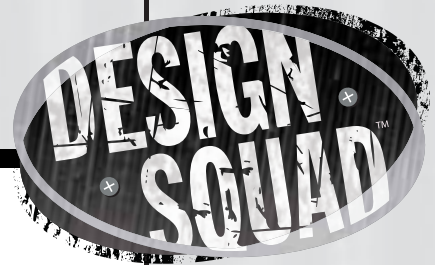
Third attempt

What did you learn from this attempt? How will your strategy change on your next attempt?

Fourth attempt

What did you learn from this attempt? How will your strategy change on your next attempt?

ZIP LINE



YOUR CHALLENGE

Design and build something that can carry a Ping-Pong ball from the top of a zip line string to the bottom in four seconds (or less!).

BRAINSTORM & DESIGN

Look at your materials and think about the questions below. Then sketch your ideas on a piece of paper or in your design notebook.

1. Using these materials, what can you design that can carry a Ping-Pong ball down a zip line?
2. How will your Ping-Pong ball carrier stay on the zip line as it goes from the top to the bottom?
3. What kinds of materials should be in contact with the zip line so that the carrier slides quickly?

BUILD, TEST, EVALUATE & REDESIGN

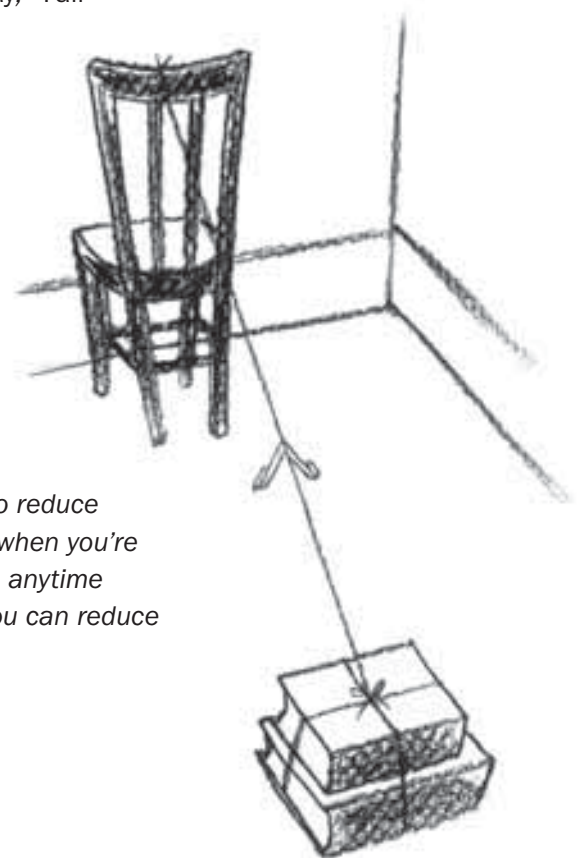
Use the materials to build your Ping-Pong ball carrier. Then make a zip line. Run the line between the back of a chair and a stack of books. Make sure the high end is about two feet above the low end. Test the carrier by putting it on the line. When you test, your design may not work as planned. The design process is all about “if at first you don’t succeed, then try, try again.” On *Design Squad*, we say, “Fail fast—succeed sooner!” Study the problems and then redesign. For example, if your Ping-Pong ball carrier:

- keeps dropping the ball—*Check that it has a big enough place to hold the ball.*
- stops partway down—*Make sure there’s nothing blocking your carrier where it touches the line.*
- doesn’t balance well—*Adjust the weights. Add weights or move them so they are farther below the zip line. Doing this changes the carrier’s **center of gravity**, the point within an object where all parts are in balance with one another. See how changing the numbers and positions of washers affects the carrier’s balance.*
- takes longer than four seconds to travel the zip line—*Find ways to reduce friction. Yes, there’s **friction**—the force that resists motion—even when you’re dealing with something as smooth as fishing line. You’ll find friction anytime things rub together. Experiment with different materials to see if you can reduce friction and speed up the Ping-Pong ball carrier.*

as built on TV™
pbs.org/designsquad

MATERIALS (per person)

- chipboard (from a cereal box or back of a notepad)
- 2–4 small paper cups (i.e., 3-ounce)
- Ping-Pong ball
- 4 plastic straws
- scissors
- single-hole hole punch
- 4 feet of smooth line (e.g., fishing line or unwaxed dental floss)
- tape (duct or masking)
- 4 standard, flat steel washers (1 inch in diameter or larger)
- 4 wooden skewers



TAKE IT TO THE NEXT LEVEL

- Slow down! Build a carrier that takes ten seconds to travel the length of the zip line.
- Piggyback time. Make a carrier that can hold several Ping-Pong balls at the same time.
- Blast off! Find a way to launch the Ping-Pong ball when the carrier gets to the end of the zip line.
- On your mark. Get set. Go! Set up two zip lines and race different ball carriers.

MAKE IT ONLINE

Travel by blimp, anyone?

Build a jet-propelled blimp that can travel across a large room. Make it out of 2 balloons, 2 straws, and some clay and tape. See how on Make Magazine's project page at makezine.com/designsquad.



ENGINEERING IN ACTION

Ever want to zip up the side of a building like Batman or Spiderman? Now this superpower can be yours, thanks to engineer Nate Ball, host of *Design Squad*, and his friends. For a contest, they designed and built a climbing device that could carry a person 50 feet up the side of a building in less than five seconds. After months of work, the team tested their climber by lifting a 150-pound load of tires. Nate recalls, "After a few seconds, there was an awful sound. The gearbox exploded. The tires smashed to the ground with a huge crash." After analyzing the ruined climber, they made lots of changes and ended up winning third prize in the contest. Ultimately, they patented the climber and started a company to sell it. Today, soldiers, firefighters, and rescue workers around the world use the team's climber to fly up buildings. Now, those are *real* superheroes.



Watch the **DESIGN SQUAD Backyard Thrill Ride** episode on PBS or online at pbs.org/designsquad.



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Grade 4 Science

This investigation involves a lens that you will not likely have at home. Instead, please watch the demonstration on the video.

Name: _____

Date: _____

Mystery 2: What do people who are blind see?

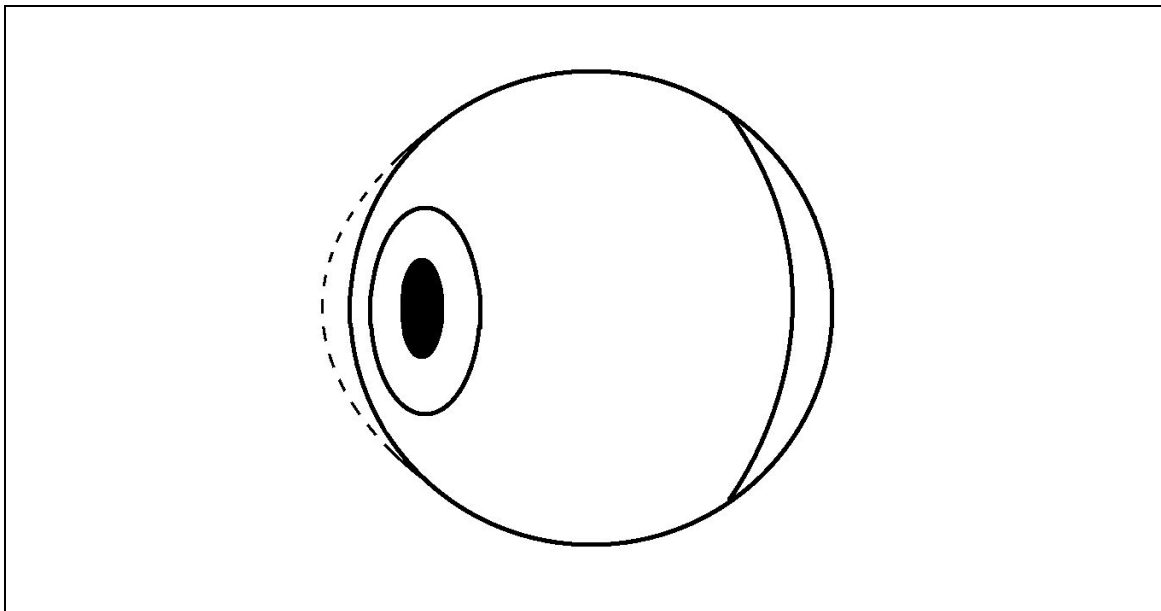
To see the video, click on the link below.

End of Mystery Assessment

<https://mysteryscience.com/body/mystery-2/light-eyes-vision/60?code=NzYzNzlwNDg&t=student>

1. Why do some people have blurry vision?

2. How does light enter the eye? On this drawing of the eye, label the **retina**, **cornea-lens**, **iris**, and **pupil**. Then use a big **arrow** to show where light enters the eye.



3. What would happen if your cornea-lens were cloudy instead of clear? What would you see?

Lowell, The Continuing Revolution

Watch the video called “Lowell: The Continuing Revolution” from the Lowell National Historical Park. You can find it using the link below.

<https://www.nps.gov/media/video/view.htm?id=87E6A909-CC5D-5D18-64F1D60FCFAF957F>

As you watch the video, think about the following questions. The questions are in the order of those topics in the video:

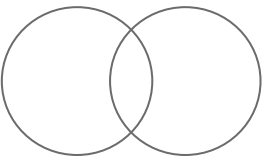
- Lowell is located at the *confluence* of the Merrimack and Concord Rivers (that means where the rivers join together.) Why were the rivers important to the growth of the city?
- Why was the city of Lowell created?
- Who were the first people to work in the mills? Why did they stop?
- Why did so many immigrants work in the mills?
- Why did mills begin to close?
- When the mills declined, what happened to the environment?
- What helped bring new life to the city?
- Why do immigrants still come to Lowell?
- “Lowell is a place that lives in the present, and tells of the past.” What does that quote from the video mean?

Pick one of the questions above. Write a paragraph to answer it. Your paragraph needs a topic sentence, three details from the video, and a closing sentence.

ESL at Home 3-5 Weeks II-12

Use notebook paper to complete these activities. Do one each day!

Monday	Tuesday	Wednesday	Thursday	Friday
<p>Choose a TV Show or Movie and write a review for it! Include a summary and why you like it/don't like it.</p> <p>First, _____. Next, _____. Last, _____. I like this/don't like this because _____. Another reason is because _____.</p>	<p>Find 10 food random items of your choice in your house. Line them up in alphabetical order. A-Z.</p> <p>Example: Crackers, Apple, Banana</p> <p style="text-align: center;">↓</p> <p>Apple, Banana, Crackers</p>	<p>Go on a walk outside. What are some natural resources that you see? What are some physical features of your area? Sketch and label.</p> <p>Natural resources: water, plants, sunlight. Physical Features: Mountain, hills, river.</p>	<p>Design your dream house. Draw and label rooms, furniture, and the fun features you would put at your house!</p>	<p>Write your own math problem and solve it. Then, write to explain how you solved it.</p> <p>Example: $468+782=$</p> <p>First, _____. Next, _____. Last, _____.</p>

Monday	Tuesday	Wednesday	Thursday	Friday
<p>Read two books. Compare/contrast the characters, setting, problem, solution, etc. using a venn diagram.</p> 	<p>Use things around your house to create an invention to launch items into the air using force. How do you get items to go farther? Less distance? Higher? Sketch and label your invention.</p>	<p>Practice reading aloud to someone in your family. Then, ask your family member questions about the text to see if they were listening!</p>	<p>Find 5 things in your home that have acute angles.</p> <p>Find 5 things in your home that have obtuse angles.</p> <p>Find 5 things in your home with lines that are parallel.</p> <p>Sketch and label these items!</p>	<p>Write your opinion on distance learning. How do you feel about learning from home? Do you like it/dislike it? Why? Write three reasons.</p> <p>I like/dislike distance learning. First, _____ because _____. Another reason I _____ is because _____. Finally, _____.</p>