

At Home Learning Resources

Grade 5 - Week 10

Content	Time Suggestions
Reading (Read books, watch books read aloud, listen to a book, complete online learning)	At least 30 minutes daily (Could be about science, social studies, etc)
Writing or Word Work or Vocabulary	20-30 minutes daily
Math	45 minutes daily
Science	25 minutes daily
Social Studies	25 minutes daily
Arts, Physical Education, or Social Emotional Learning	30 minutes daily

These are some time recommendations for each subject.

We know everyone's schedule is different, so do what you can.

These times do not need to be in a row/in order, but can be spread throughout the day.

Teachers will suggest which parts of the packet need to be completed or teachers may assign alternative tasks.

Grade 5 ELA Week 10

All previous activities, as well as other resources can be found on the Lowell Public Schools website: https://www.lowell.k12.ma.us/Page/3801

This week begins a focus on mystery reading and writing. Your child should be reading, writing, talking and writing about reading, and exploring new vocabulary each week.

Reading: Students need to read each day. They can read the mystery included in this packet and/or read any of the mystery 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, then talk about their reading with a family member and/or write about their reading using the prompts/questions included.

Writing: Students will be working on writing mystery stories for the next few weeks. The resources in this packet will be the same for next week for writing as well. These resources are charts with examples to help your child write. They are available online in an interactive form with video tutorials here: **Grade 5 Mystery Writing Choice Board.** This writing should last throughout the weeks. This is a great opportunity to explore new topics. Students will be planning their writing, then writing, then making it even better by revising, writing some more, and at the end, fixing it up by editing. Your child might write 1 mystery and work to refine it throughout, or might write multiple mysteries, getting better each time.

Word Work: Students can work on learning new vocabulary about a topic they are interested in. Choose 3 activities on the vocabulary tic-tac-toe board. Learn any words you want or find in your reading.

Mystery Unit

Definition of a Mystery: Type of fiction that deals with the solution of a crime or the unraveling of secrets

Characteristics of the Genre:

- Characters seem real
- Can be realistic or fantasy
- Setting can be today, in the past, or the future
- Main character can be a detective or spy (sleuth)
- Problem or crime needs to be solved
- Mystery solved at the end, sometimes with a surprise

When reading mysteries, readers need to:

- think of motives of the characters to solve the mystery
- put the clues together to solve the problem or crime while reading
- Look for clues some are hidden and not obvious
- May have misleading clues (red herrings)
- Foreshadowing helps the reader notice the clues

(taken from Genre Study by Fountas and Pinnell)

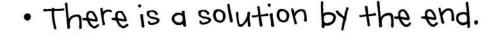
When reading mystery texts, think about the following. Annotate, stop and jot, and respond in writing as you are reading or when you are done.

How do mystery books go?

- · They all have a problem (a mystery!).
- · Some mysteries have a crime.
- · They all have detectives.



- · Detectives look for clues.
- Most have sidekicks, co-detectives, or someone to talk to.
- · They have a victim.
- They have suspects.
- · Some suspects have a motive.
- · There is a witness.







Mystery readers look for...

At the start of mysteries, readers look for ...

- · What IS the problem?
- · Who is the crime solver? What is he or she like?
- · Does he or she have a sidekick?



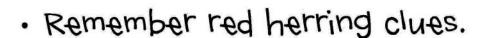
Mystery readers look in the middle of a book for ...

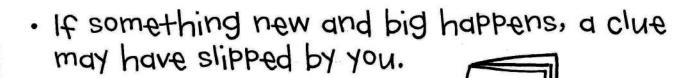
- · Who seems to be a suspect, and where is the evidence?
- · What are some important clues?
- · was there a witness? Where does it show this?
- What motive does each suspect have, and where does it show this?
- What opportunity does each suspect have, and where does it show this?

Mystery readers look in the end of a book for ...

- · What hints are there to the solution?
- · Where is the solution straight-out said?

How to Find Hidden Clues

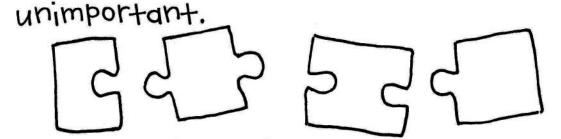




· Look where many readers may not have noticed: dialogue, jokes, or descriptions of characters.

LoL!

• Think about how details may be connected to other details you thought were



Steal Back the Mona Lisa By Meghan McCarthy

While Jack is asleep in his room...
Outside his room, and all the way across the seas in France...
A few crooked crooks are...
STEALING THE MONA LISA!

Wake up, Jack, wake up! STEAL BACK the MONA LISA!

Jack was asleep, but something wakes him up. Jack has a mission.
But what is it?

QUICK, JACK! GET DRESSED!

Instead of his clothes, Jack fins nothing but brown suits and brown hats. He puts on a special-agent watch that does a very special thing.

Jack struggles out the window. QUICK JACK! USE THE LASER LIGHT!

A car is waiting for him outside. A very FAST car. "I can't drive!" says Jack. "I'm too little."

YES, YOU CAN.*
And they speed away.

But where is Jack going? To France, of course! Jack's mission is to...

- 1. FLY ACROSS THE OCEAN
- 2. STEAL BACK THE MONA LISA FROM THE CROOKED CROOKS
- 3. RETURN THE FAMOUS PAINTING TO ITS HOME, THE LOUVRE.

Meanwhile, the crooked crooks are designing plans to ruin the MONA LISA!

Can Jack come to the rescue in time?

Perhaps not. Jack is being followed. Will they stop him from saving the MONA LISA?

NO!

Jack releases slippery oil.

Hours later, Jack makes it to the plane. But it's not an ordinary plane. It's his own private jet with his own private pilot. Jack begins his 3,628 mile flight across the ocean and into France.

BUT IS IT REALLY FRANCE?

NO!

QUICK, JACK,
PULL THE INSTA-BLIMP CORD!
Without wasting a moment, Jack's jacket inflates.
He safely floats to the ground and lands in RUSSIA.

Jack must find the MONA LISA. But first, he must get his strength back. "Ah, this drink is good," Jack says to himself.

Jack gets kidnapped and	to a dark, sinister warehouse

There, he is made to wear the most foolish of mustaches... eat vegetables... and watch videos of chickens dancing – OVER and OVER again!

AND IT GETS WORSE

But IS it good?

He is brought to a very fast boat in an ocean filed with creatures that look a lot like sharks.

IS THE MONA LISA DOOMED?

It sure seems so. And so is Jack!

WITH THE CROOKS GONE, JACK HAS TO ESCAPE!

Jack pulls the insta – blimp cord, but that doesn't work. He tries the laser light, but it only burns a hole in his hat. He presses the oily-hat button, but that only makes him greasy.

What can Jack do? QUICK, JACK, USE THE SPECIAL AGENT WATCH!

And not a moment too soon, **

NOT SO FAST, shouts Jack.

Then Jack secretly travels to France and makes his way to the Louvre. .. with something very strange under his jacket. What could it be?

MISSION ACCOMPLISHED.

Using secret methods too treacherous to mention, Jack arrives back home, safe and sound in his bed.

And he got away without a mark...

OR DID HE?

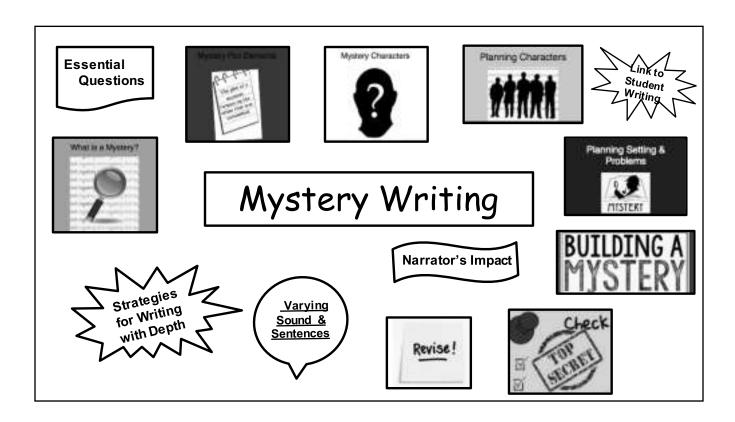
^{.* (}this comes from the dashboard of the car)

^{**} a rope comes out of the watch and lassos the crooks

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Grade 5 Mystery Writing Choice Board - Visit the online option for an interactive board with tutorials. Use the anchor charts to help you write your own mystery story.



Essential Questions

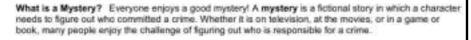
When writing a mystery, you should keep some essential questions in mind:

- How does the narrator's point of view affect a story?
- Why is it important to know the structure of a text?
- How do the essential elements of a mystery affect its quality?
- How is mystery unique as a genre?
- How do great mystery writers hook and hold their readers?



What is a Mystery?







Mystery stories all have several things in common. All mystery stories have at least one suspect, or a person who could have committed the crime. In many mystery stories, suspects have alibis. An alibi is an excuse or reason a suspect might use to show his or her innocence. Mystery stories have at least one victim, or character who was wronged, hurt, or killed in the story. Mystery stories also have an investigator or a detective. These characters can either be profussional or amateur sleaths. Amateur investigators are people who aren't trained to hunt down clues, but who like to try to solve a crime. Investigators often try to find a witness to the crime, or someone who may have seen the crime in progress or may have knowledge of it, investigators also try to find evidence to help solve the crime. Investigators try to track down these clues to determine a person's motive, or reason for committing a crime. After they gather enough evidence, investigators put the details and pieces together to try to solve the crime.

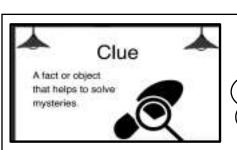


A mystery is unique from other stories because the plot, or main purpose, of the story focuses on a crime, which is a puzzle or problem that needs to be solved. Authors of mysteries add clues to the story to help the reader solve the puzzle by the end of the book. They also add misleading clues called red herrings to keep readers in suspense. Mystery authors want the reader to try to predict, or guess, the final outcome. Authors usually don't reveal the solution until the end of the book.

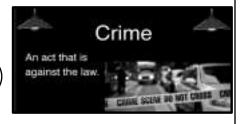
Rica Buca

Defendant Testifies

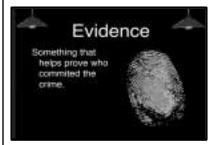
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Start thinking... what crime/problem will happen? What clues can you include? What evidence? Will you have a red herring?

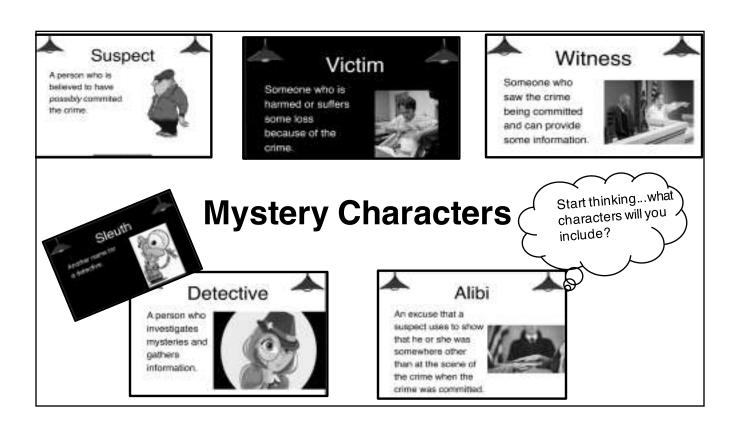


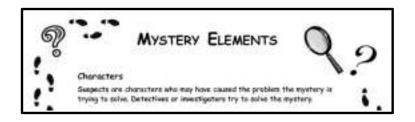
Mystery Plot Elements

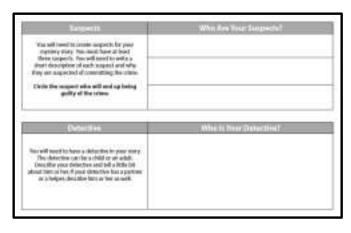


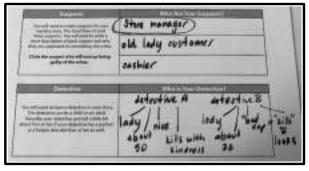


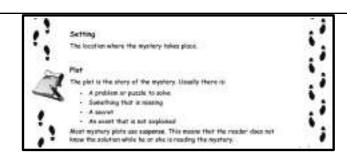


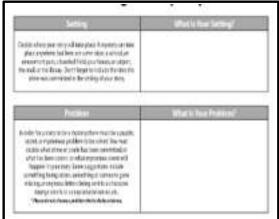


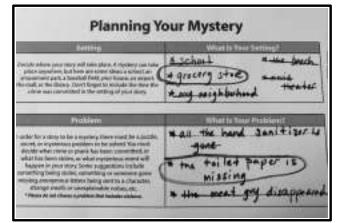


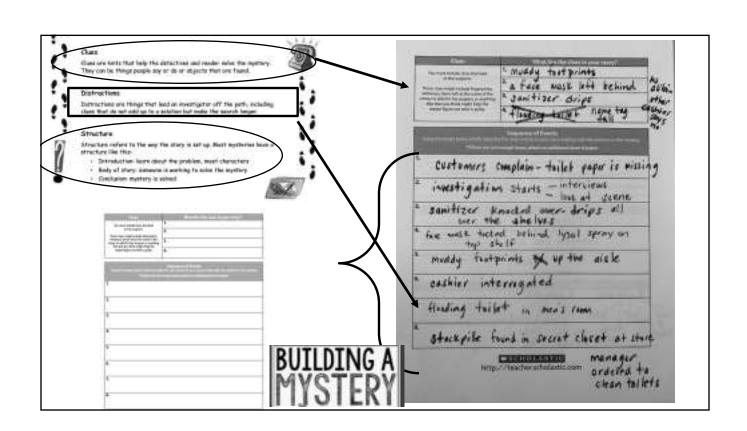












Narrator's Impact

When writing your mystery story it is important to understand the impact the narrator will have on how your events in the story are described.

- What type of narrator will you have (1st person? 3rd person?)
- You as the author need to make sure you develop the narrator's point of view!

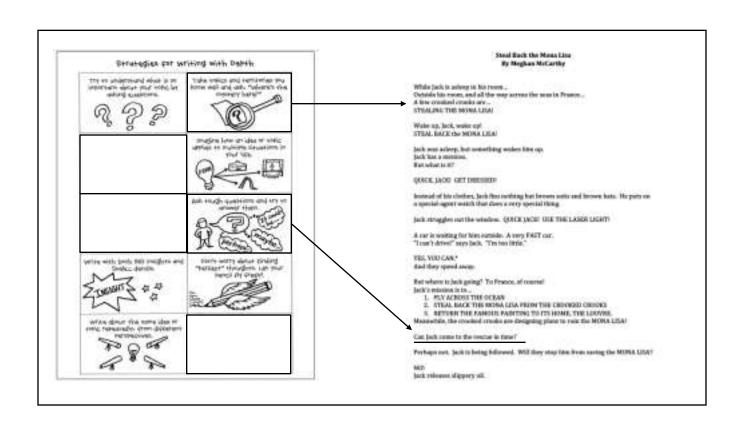
1st Person Example

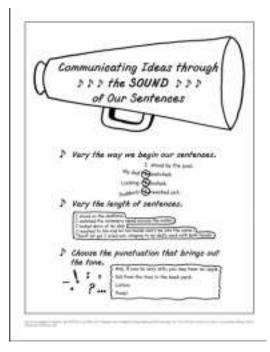
When I wake up, the other side of the bed is cold. My fingers stretch out, seeking Prim's warmth but finding only the rough canvas cover of the mattress. She must have had bad dreams and climbed in with our mother. Of course, she did. This is the day of the reaping.

3rd Person example

If I am out of my mind, it's all right with me, thought Moses Herzog.

Some people thought he was cracked and for a time he himself had doubted that he was all there. But now, though he still behaved oddly, he felt confident, cheerful, clairvoyant and strong. He had fallen under a spell and was writing letters to everyone under the sun. ... [H]e wrote endlessly, fanatically, to the newspapers, to people in public life, to friends and relatives and at last to the dead, his own obscure dead, and finally the famous dead.





Communicate Ideas Through Sound and Sentences

Student Example:

This must be Mike they all thought, "Hey! Umm, sir are you Mike? If so we found your dog!" the three said. He nodded but something was wrong he looked like he was in pain, like if tiny sharp needles were sticking Into him. He tried to get up to see Mizu but he couldn't get up. The curly tailed dog whined and walked In circles around Mike. "Mike are you okay? Do you want us to help you up?" Ajit asked Mike. "I-l broke my leg. I fell on a rock while I was out walking my dog. I've been stuck ever since I fell". He explained the rest of the story. Then Ajit, Balaji and the dad helped him up onto his feet.

Revision Strategies

1. Including details in your writing

- One time...
- Hint at the trouble right from the start...
- What were you thinking?
- What was being said?
- What did you do?
- Build out the world of the story. Where were you? What did it sound like? Look like?

2. Reading it out loud to self

- "It helps to read it out loud to hear the sound of each word and rhythm of the sentences."
- "The sound of our words is powerful. Writer's communicate with readers by choosing words that convey not only the content but also the mood, the tone, and the feeling they want to convey."

Example: Original sentence: He was there when I was born I think.

Listening to my sentence it wasn't creating the mood I wanted so I reworded: **You were there when I was born,** so I've been told.

Ingredients for a Mystery

When conking up a mystery, authors use this tasty recipe.

Directions: Check all of the ingredients found in the mystery you read.

- Surgects: Characters believed to have possibly committed the crime
- Detective: Character trying to solve the reprinty
- CWitnesses Characters who saw the crime being committed.

This is the location where the reystery takes place.

When reading a reystery, the story usually includes one of the following:

- A problem that needs to be solved
- An event that cannot be explained
- CIAMORE
- Something that is lest or missing
- ☐ A crime that has been committed

Class are hints that can help the reader and the detective solve the mysters. They can be things people say or do, or objects that are found that provide important information. (Check the box if the mystery you read had clues.)

These are distriction; or fake class that may lead the moder or the detective off track fled herrings often make it more difficult to solve a mystery (Check the box if the mystery you med.

RECIPE FOR A MYSTERY.

- Host reprinces are as up the same way the structure of a matrix yourselfy looks like this.

 Beginning: Characters are introduced and the reader leaves about the problem.
- CI Middle: Detectives work to solve the crystery by interviewing suspects and grahining class
- □ End: The mystery is solved

"Alterdion everyone," Mrs. Doole said to our class as we walked in her classmont from science, "I will be opening up a store for our school starting today." Our whole class gazed upon all the delicious snacks that she had on her table. The next day everyone care in with a ton of money. Mrs. Doole's jar was full of money and her store supply was running low.

After Mrs. Doole restocked, the sales were back to how they were before, until we came into school on Friday morning. Over the loudspeaker Mr. Statil said "Attention. all students and staff, Mrs. Doole's shop was robbed last night, 490 dollars in cosh and all of her snacks are gone and the store will be temporarily closed until we find out who has done this crime." I couldn't believe that. What kind of person would steel from a teacher? I know I had to get to the bottom of this.

At lunch that day, Nathenial, Jack, and I were sitting next to each other. If wonder who would steal Mrs. Cook's stuff," said Jack, That's when I had an idea. "Hey guys," I said "maybe we can find out who robbed Mrs. Dode's store," Nathaniel and Jack were in, it was time to catch the criminal

The three of us showed up to school exits early in the morning to investigate the prints scene. As we examined the classroom, Nathaniel pointed out that the look for the cabinet that Virs. Doole stored everything in was arrested. We opened up the cabinet and looked very closely for any close, when all of a sudden, we heard a voice sale, "What are you boys doing in here?" We turned around to find Mr. Stahl staring at us.

The Robbery at the Wang School

"Attention everyone," Mrs. Doole said to our class as we walked in her classroom from science, "I will be opening up a store for our school starting today." Our whole class gazed upon all the delicious snacks that she had on her table. The next day everyone came in with a ton of money. Mrs. Doole's jar was full of money and her store supply was running low.

After Mrs. Doole restocked, the sales were back to how they were before, until we came into school on Friday morning. Over the loudspeaker Mr. Stahl said "Attention all students and staff, Mrs. Doole's shop was robbed last night, 400 dollars in cash and all of her snacks are gone and the store will be temporarily closed until we find out who has done this crime." I couldn't believe that. What kind of person would steal from a teacher? I knew I had to get to the bottom of this.

At lunch that day, Nathaniel, Jack, and I were sitting next to each other. "I wonder who would steal Mrs. Doole's stuff," said Jack. That's when I had an idea. "Hey guys," I said "maybe we can find out who robbed Mrs. Doole's store," Nathaniel and Jack were in, it was time to catch the criminal.

The three of us showed up to school extra early in the morning to investigate the crime scene. As we examined the classroom, Nathaniel pointed out that the lock for the cabinet that Mrs. Doole stored everything in was smashed. We opened up the cabinet and looked very closely for any clues, when all of a sudden, we heard a voice ask, "What are you boys doing in here?" We turned around to find Mr. Stahl staring at us.

After we explained ourselves, Mr. Stahl said, "Follow me, I have a video from the security cameras, and I can't figure out who this person is." We followed Mr. Stahl all the way to his office and he played the tape of someone stuffing their bag with money and food over and over on his computer. "Judging by the criminals size, I'd say that's a student." said Mr. Stahl. Now we had a lead.

Before we had to go to class we asked Mr. Stahl if he could let us keep investigating Mrs. Doole's room. He told us that he could temporarily move Mrs. Doole into a different classroom until we find out who did this.

That day, Mrs. Doole's class was held in the basement where it was very cold and crowded. Kids were playing tricks on her by hiding in all the unneeded stuff. I thought that this could be the perfect way to stay after school and find clues. At 2:50, me, Nathaniel, and Jack snuck into the elevator and went to the basement to hide from all the staff members. By that time, Mrs. Doole was already gone and we could just stay and hang out until everyone left.

About 10 minutes later Mike and Dennis, the custodians, came down to grab something, so we needed to hide with super stealth. I hid behind a stack of desks and chairs, Jack was behind an unused giant whiteboard, and Nathaniel hid inside a cabinet. Mike walked over to the cabinets and Dennis was walking towards the pile of desks that I was behind. My heart was racing and I was shaking because I was afraid that I was going to be caught in the basement. Dennis was right in front of me and he reached out...

His hand was inches away from me, but he only grabbed a chair. I was so lucky that he didn't see me. Then, my attention drifted to Mike right next to the cabinet that Nathaniel was in. He opened up the cabinet, but Nathaniel wasn't there anymore. He must've used his super ninja skills to avoid being caught. Mike grabbed a bag out of the cabinet and said to Dennis, "It's time to give this to Mr. Stahl." Once they were gone we were able to come out of our hiding spots. "How'd you do that?" me and Jack asked Nathaniel. "I just used my ninja training and got out of there lightning quick," he responded.

We waited about 10 minutes so it was safe to get out without being caught. We got back to Mrs. Doole's classroom and investigated immediately. Right away, Nathaniel pointed out the trail of cheetos. "The criminal must've had a snack during his getaway," said Nathaniel. We followed the trail and ended up in the office. We saw Omayra at her desk and asked if she knew anything about this. "I do know that Cheetos are Mr. Stahl's favorite snack," she told us. We now have a suspect.

We went back up and tried to think of who likes Cheetos the most. The names we came up with were Mr. Stahl, Richie, and Talvin, but we knew from Mr. Stahl's tape that the crime was committed by a student.

The next day we gathered our suspects and interrogated all of them. We started with Richie. "Richie, where were you at 6:30 to 7:00 on Thursday night?" questioned Jack. "I was at my baseball game, I swear," said Richie. I checked the PYO schedule and saw that Richie's team, the Indians in fact did have a game on Thursday night at 6:00. "You're free to go," Nathaniel told him.

The next suspect was Talvin. "I can tell you for a fact that I was playing video games with Javi," he told us. We logged in to Talvin's PS4 account and checked his history. It told us that he was online with Javi playing video games during the crime. We told Talvin that he could go home. Next up was Mr. Stahl. He told us that he was at the Ninety Nine when the crime took place. We called the Ninety Nine and asked if there was a Mr. Stahl there on Thursday night.

The lady on the phone told us that there was no Mr. Stahl there. Mr. Stahl had a false alibi! So I was almost certain that he was guilty. Then I remembered the bag that Mike and Dennis were delivering to him. I bolted to Mr. Stahl's office and searched for the bag. I found it under a pile of books. I came back and looked through the bag. Right on top was a giant bag of Cheetos and 400 dollars!

The crime was solved and we found out that Mr. Stahl was a red herring and that he had his daughter rob the store for him. Mr. Stahl was locked up in jail and Mr. Passeri was the new principal. Mrs. Doole closed her shop and never opened it again.

The End.

Vocabulary Word Tic Tac Toe

Choose three activities to complete using your vocabulary words.

Definition Drawing

Draw a picture or Scene of the definition of at least 5 of your vocabulary words. Label each drawing with the word.

Crossword Puzzle

Create a crossword puzzle
using grid paper. Have a
classmate solve it.

Synonyms and Antonyms

Use a the saurus to find a synonym and antonym for 10 of your words.
Use the recording sheet to write your answers.

Sentences

Use each one of your words in a sentence. It must be used correctly, and the sentence should help someone understand the meaning of the word.

Flash Cards

Make one flash card for each of your words. Write the word on one side and the definition on the other side.

Use the cards to quiz yourself.

Comic Strip

Create a comic Strip using at least 5 of your words in the conversations between your characters.

Prefix - Root -Suffix

Find as many words as you can with the same prefix, root, or suffix as your vocabulary words.

Use the recording sheet to write your answers.

Quiz

Make a 10 question quiz
using 10 different
vocabulary words.
Questions can be multiple
choice, fill-in-the-blank, or
matching.

Story Words

Write a Story using at least
5 of your words. Include
lots of detail and
descriptive words.

Math Grade 5 Week 10 (May 26 - 29)

Name:

Score:

Teacher:

Date:

3 Minute Drill

Comparing Fractions

Compare the fractions using >, <, or =.

=3 =3	$\frac{1}{2}\bigcirc\frac{4}{5}$	$\frac{8}{10}\bigcirc\frac{2}{3}$
31 31		
31 31 31	$\frac{4}{6}$ $\bigcirc \frac{2}{8}$	$\frac{10}{12}\bigcirc\frac{5}{6}$
31 31 31 31	$\frac{4}{10} \bigcirc \frac{8}{12}$	$\frac{2}{3}$ $\bigcirc \frac{3}{4}$
3 3 3	$\frac{3}{6}$ $\bigcirc \frac{1}{3}$	$\frac{6}{8}$ \bigcirc $\frac{10}{12}$
	$\frac{2}{5}\bigcirc\frac{6}{15}$	<u>5</u>

Equivalent Fractions

Fill in the missing numerator or denominator to complete each equivalent fraction.

Write an Equivalent Fraction					
	$\frac{}{6} = \frac{4}{12}$	$\frac{3}{4} = \frac{\square}{8}$	$\frac{8}{12} = \frac{4}{\Box}$		
字列 字列 字列 字列	$\frac{1}{\Box} = \frac{2}{6}$	$\frac{4}{6} = \frac{8}{\Box}$	$\frac{1}{2} = \frac{\square}{10}$		
	$\frac{\square}{6} = \frac{2}{3}$	$\frac{5}{12} = \frac{10}{12}$	$\frac{2}{\Box} = \frac{4}{8}$		

Greatminds.org Gr 5 Mod 3 Application Problems

The Napoli family combined two bags of dry cat food in a plastic container. One bag had $\frac{5}{6}$ kg of cat food. The other bag had $\frac{3}{4}$ kg. What was the total weight of the container after the bags were combined?



George weeded $\frac{1}{5}$ of the garden, and Summer weeded some, too. When they were finished, $\frac{2}{3}$ of the garden still needed to be weeded. What fraction of the garden did Summer weed?



Name_____

Date_____

Multiplication and Division Facts

$$54 \div 9 = 14 \div 7$$

$$14 \div 7 =$$
 $25 \div 5 =$ _____

$$60 \div 10 =$$
 $24 \div 6 =$

$$24 \div 6 =$$
 $36 \div 12 =$

$$28 \div 7 =$$
 $12 \div 4 =$

$$42 \div 6 =$$
 $45 \div 5 =$ _____

$$35 \div 7 =$$

$$108 \div 12 =$$
 $21 \div 7 =$

Estimating Sums and Differences of Fractions

Place each expression in the appropriate column.

3	$\frac{3}{8} + \frac{3}{4}$	$\frac{1}{12} + \frac{1}{3}$	$\frac{1}{6} + \frac{1}{3}$	$\frac{2}{5} + \frac{1}{4}$	
	$\frac{3}{4} - \frac{1}{8}$	$\frac{3}{4} - \frac{2}{8}$	$\frac{2}{3} - \frac{2}{9}$	$\frac{3}{4} - \frac{1}{10}$	
=31	< 1/2	= }	1	> 1/2	
-9 =3					
=31 - =31					
=3 - =3		# B			
=a =3 -					
=B					
12		ii) s.			

Nick and Tasha are buying supplies for a camping trip. They need to buy chocolate bars to make s'mores, their favorite campfire dessert. Each of them has a different recipe for their perfect s'mores. Nick likes to use ½ of a chocolate bar to make a s'more. Tasha will only eat a s'more that is made with exactly 2/5 of a chocolate bar.

a) What fraction of a chocolate bar will Nick and Tasha use in total if they each eat one s'more?

b) Nick wants to cut one chocolate bar into pieces of equal size so that he and Tasha can make their s'mores. How many pieces should he cut the chocolate bar into so that each person will get the right amount of chocolate to make their perfect s'more?

c) After Nick cuts the chocolate bar into pieces of equal size, how many pieces of chocolate bar should he get? How many pieces of the chocolate bar should he give to Tasha?

Review: Fractions & Decimals

Numbers less than a whole can be written two ways: as a fraction or a decimal.

) a fraction

$$0.25 = \frac{25}{100}$$

Since the 5 is written in the 100ths place, write a 100 on the bottom.

a decimal

$$\frac{2}{10} = 0.2$$

Since the 2 is above the number 10, write the 2 in the 10ths place.

Rewrite the numbers below as a fraction or a decimal.

$$\frac{51}{100} =$$

$$\frac{5}{10} =$$

$$\frac{63}{100} =$$

$$=$$
 $\frac{5}{10}$ $=$ $\frac{63}{100}$ $=$ $\frac{92}{100}$ $=$ $\frac{92}{100}$

$$\frac{25}{10} = \frac{25}{10}$$

$$\frac{73}{100} =$$

$$=$$
 $\frac{82}{100} =$ $\frac{7}{10} =$ $\frac{7}{10} =$



$$\frac{64}{100} =$$



$$\frac{22}{100} = ------$$

$$0.79 = \frac{43}{10} = \frac{}{}$$

$$\frac{1}{10} =$$

$$\frac{4}{10} = 0.1 =$$

$$\frac{32}{100} =$$



$$0.2 = \frac{2}{10} = \frac{2}{10}$$

$$\frac{74}{100} = \frac{}{}$$



$$\frac{9}{10} =$$

$$\frac{8}{10} = 0.66 =$$

$$\frac{28}{100} =$$

Name:		
maille:		

Foundations of Fractions

Use the information given below to answer a-f.

Lynn, Paco, and Todd split a pack of 12 baseball cards. Lynn gets 4 cards, Paco gets 3 cards, and Todd gets the rest of the cards. What fraction of the pack does Todd get?



- a. How many cards do Lynn and Paco get altogether?
- b. How many cards does Todd get?
- c. There are 12 cards in the pack. What fraction represents the whole pack of cards?
- **d.** If Lynn gets 4 cards out of 12, that means she gets $\frac{4}{12}$ of the pack. If Paco gets 3 cards out of 12, what fraction of the pack does he get?
- e. What fraction of the pack do Lynn and Paco get altogether?
- f. Explain how you could find the fraction of the pack that Todd gets.

Solve the problems.

- II Liang bought some cloth. He used $\frac{5}{8}$ of a yard for a school project. He has $\frac{2}{8}$ of a yard left. How much cloth did Liang buy?
 - A $\frac{3}{8}$ of a yard
 - B $\frac{7}{16}$ of a yard
 - $C = \frac{7}{8}$ of a yard
 - D $\frac{8}{8}$ of a yard
- 2 Carmela cut a cake into 12 equal-sized pieces. She ate $\frac{2}{12}$ of the cake, and her brother ate $\frac{3}{12}$ of the cake. What fraction of the cake is left?
 - A $\frac{1}{12}$
 - $B = \frac{5}{12}$
 - C 7/12
 - $D \frac{12}{12}$
- Lee's muffin mix calls for $\frac{2}{3}$ cup of milk and $\frac{1}{3}$ cup of oil. How much more milk than oil does she need for the muffin mix?



Alex is training for his school's Jog-A-Thon and needs to run at least 1 mile per day. If Alex runs to his grandma's house, which is $\frac{5}{8}$ of a mile away, and then to his friend Justin's house, which is $\frac{1}{2}$ of a mile away, will he have trained enough for the day?

Hannah and her friend are training to run in a 2-mile race. On Monday, Hannah ran $\frac{1}{2}$ mile. On Tuesday, she ran $\frac{1}{5}$ mile farther than she ran on Monday.

- a. How far did Hannah run on Tuesday?
- b. If her friend ran $\frac{3}{4}$ mile on Tuesday, how many miles did the girls run in all on Tuesday?



KICKING MACHINE



YOUR CHALLENGE

Build a machine that kicks a Ping-Pong ball into a cup lying on its side 12 inches away. Use either (1) a pendulum, (2) a rubber band, or (3) a combination of the two to do this.

MATERIALS*

- Balls (Ping-Pong and golf)
- Corrugated cardboard
- · Paper clips
- · Paper cups

- Popsicle sticks
- Rubber bands
- Ruler
- Scissors
- String
- Tape (masking or duct)
- Thin metal wire (optional)
- Wooden skewers
- * For information on where to get these materials, see page 6 or visit pbskidsgo.org/designsquad/engineers.

BRAINSTORM AND DESIGN

Before you begin designing your machine, brainstorm answers to the following questions. Record and sketch your ideas in your design notebook.

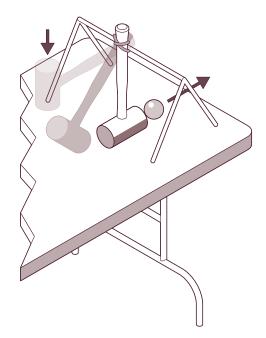
- Will my machine use a pendulum or rubber band (or a combination) to send a ball into the cup?
- How will I stop the machine from launching the ball before I'm ready to release it?
- How will the machine be triggered when I'm ready to launch the ball?
- How will I make sure the pendulum or rubber band launches the ball straight enough and with the right amount of force so it goes into the cup?

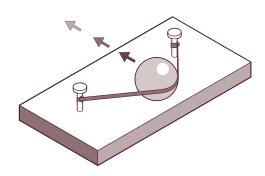
Think about how to create different release points for the pendulum or rubber band so you have more control over a launched ball. Also consider how to determine the right amount of energy to store up before making your shot.

BUILD, TEST, AND REDESIGN

When you lift a pendulum or stretch a rubber band, you increase its potential energy. **Potential energy** is energy that is stored. When you release the pendulum or rubber band, its potential energy is turned into **kinetic energy**, the energy of motion. Many machines have this in common—they turn potential energy (e.g., fuel, electricity, muscle power, springs, or weights) into kinetic energy that can be used to do a task (in this case, launch a ball).

Once you've built your machine, test it. Lay a cup on its side 12 inches away and see if you can get the ball in. When we made our machine, we had to debug some problems. For example, the ball bumped into parts of our machine and went in unexpected directions, and the stretched rubber band bent our frame. It was also hard to get the pendulum and rubber band to stay pulled back. If things like this happen to you, figure out a way to fix the problem so that your machine works every time.





When you lift a pendulum or stretch a rubber band, you increase its potential energy.



TAKE IT TO THE NEXT LEVEL

- Move the cup so it's 24 inches from your kicking machine.
- Build a ramp and see if you can shoot the ball up and over the ramp.
- Build a machine that can launch two balls at once or that can launch balls at different speeds.

INSIDE THE ENGINEERING

SWEET DELIVERY

Building machines that make tasty—and sometimes far-out ice cream flavors is just the kind of challenge Pete Gosselin loves. He's head engineer for Ben and Jerry's® ice cream. Pete's the guy who designs the machines that make different flavors and mix the right amounts of candy, filling, or swirl into each container. And you thought getting a ball into a cup was a challenge! Some days, it's, "We want every container to have half a pint of cherry ice cream with cherries and fudge flakes and half a pint of chocolate ice cream with fudge brownies. Now on the brownie side, make sure there are at least three but no more than four brownie bites. Oh and by the way, these babies need to roll off the production line at 200 pints a minute." To make some flavors, Pete tinkers with the factory's existing machines. For others, he has to design special machines. His biggest challenge: to design a machine that makes a flavor with a core of fudge and caramel wedged between chocolate and caramel ice cream. The way Pete sees it, "The world is full of problems and possibilities. And technology has a huge influence on making our lives better, whether the challenge is addressing global warming or making delicious food."

Ben and Jerry's is a registered trademark of Ben & Jerry's Homemade Holdings, Inc.



Watch *Design Squad* on PBS (check local listings). Download more challenges at **pbskidsgo.org/designsquad**.



TAKE IT ONLINE

Want to make life easier? See how simple machines bring mechanical advantage to the rescue! Download Not So Simple Machines from Intel's Design and Discovery hands-on engineering program.

<u>intel.com/education/designanddiscovery</u>



noto: Mika Tomo

The Design Squad cast made a kicking machine for a professional soccer player. This soccer-ball launcher uses electric drills to spin wheelbarrow wheels to send soccer balls flying.

















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Modeling Marine Food Webs and Human Impacts on Marine Ecosystems

Student Worksheet 1: Food Chains

Build Food Chains

Using the information on the Marine Life Cards, build at least five different food chains. Each food chain should include at least two cards. Draw and label the creatures in the space below, following the example of a two-creature food chain. Use the back of this page if you need more space.



Build Food Chains

Do you want to see how a blue whale can eat enough krill to become the largest animal on Earth? Check out this video: https://mass.pbslearningmedia.org/resource/f1fbcd8b-d2b4-4b0b-acc8-5647d5b81241/blue-whale-barrel-roll/





Marine Food Webs and Human Impacts Student Worksheet 2

1. Sketch your food web in the space below by drawing boxes around the names of the creatures and connecting them with arrows to show feeding relationships.



Anchovy

Engraulis mordax

Phytoplankton, zooplankton (including krill and larval fishes)



Photic "sunlight" zone

Forms large, tightly packed schools of thousands to confuse predators.

Image: Joyce and Frank Burek

¶ Food

Zooplankton (krill)

Home

Photic "sunlight" zone



Blue Whale

Balaenoptera musculus

Largest animal on Earth. Eats krill by straining them through its baleen.



Food
Phytoplankton



Throughout the ocean

Crustaceans

Includes shrimp, pelagic red crabs, lobsters, and barnacles

Crustaceans have their skeletons on the outside of their bodies and must shed their shells to grow, called molting.

Image: Hidden Ocean 2005 Expedition, NOAA Office of Ocean Exploration



Decomposers Includes bacteria

¶ Food

Waste of living organisms, dead organisms

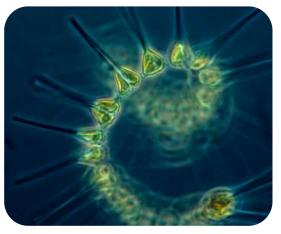


Throughout the ocean

Nature's recyclers; they break down organic matter and return elements and nutrients back to the environment.

Image: NOAA

Image: Mark Conlin, NOAA



Phytoplankton
Includes diatoms and dinoflagellates

Phytoplankton contain chlorophyll and produce a major percentage of the world's oxygen.

Image: NOAA MESA Project

¶ Food

Sunlight

(photosynthesis)

A Home

Photic "sunlight" zone



Market Squid Loligo opalescens

T Food

Small crustaceans, fish (including anchovies and sardines), other squid



Photic "sunlight" zone & twilight zone

Can change its color; when the squid is excited, the color changes to light or dark brown.

Image: NOAA



Pacific Herring

Clupea pallasii

T Food

Crustaceans, zooplankton (krill)



Coastal waters (photic "sunlight" zone)

A female can lay up to 125,000 sticky eggs, which cling in masses to algae and other objects.



Pacific Jack Mackerel
Trachurus symmetricus

¶ Food

Zooplankton, fish (including anchovies and sardines)

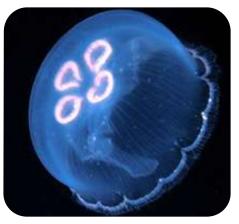


Photic "sunlight" zone & twilight zone

Forms large schools; can live up to 30 years.

Image: NOAA Fisheries

Image: NOAA NMFS



Moon Jelly Aurelia labiata

¶ Food

Zooplankton



Photic "sunlight" zone



Extremely playful and highly social; can dive underwater for over six minutes to feed.

Image: Michael Richlen; taken under NMSF Permits 774-1714-00, 540-1502-00

Color changes depending on diet, so eating lots of brine shrimp turns it orange.

Image: Joyce and Frank Burek



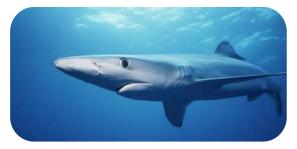
Red Octopus Octopus rubescens

Food

Small crustaceans, fish (including anchovies and sardines)



Coastal waters (photic "sunlight" zone)



Blue Shark Prionace glauca



¶ Food

Squid, anchovies,

sardines, herring

Home

Photic "sunlight" zone

Squid, fish (including tuna, mackerel, herring, and anchovies)



Kills its prey by injecting it with poisonous secretions.

One of the most mobile sharks; can migrate well over 1,000 miles.

Image: Steve Fisher

Image: Mark Conlin, NOAA



Leatherback Sea Turtle Dermochelys coriacea

¶ Food

Moon jelly, other jellyfish



A Home

Photic "sunlight" zone & twilight zone

The largest living reptile in the world; hundreds of jagged spines lining its mouth and throat help it eat its favorite food—jellyfish!

Image: Scott Benson, NOAA



Pacific Sardine Sardinops sagax

Food

Zooplankton, phytoplankton



Photic "sunlight" zone

Forms large schools; can live up to 13 years.



¶ Food

Phytoplankton



M Home

Throughout the ocean

Zooplankton Includes krill and fish larvae

Weak swimmers, they drift along with the current. Many migrate up from deeper waters at night to feed at the surface.

Pacific Bluefin Tuna

Thunnus orientalis



Image: NOAA Fisheries, Southwest Fisheries Science Center

Squid, fish (including mackerel, sardines, herring, and anchovies), pelagic red crabs



Photic "sunlight" zone

Can reach speeds of over 45 miles per hour in short bursts.

Image: TOPP; Copyright Randy Wilder, Monterey Bay Aquarium

Image: Matt Wilson/Jay Clark, NOAA NMFS AFSC

Jse your food web mod	els to predict the imp	pacts that the loss of	a particular species v	would
nave on this marine ecos	system.			

What creature was removed from your food web? (Circle it in your food web on page 1 and fill in the name in the space below):

Looking at your food web, describe how the loss of this organism from your ecosystem would affect the other creatures in this marine ecosystem:

- 2. Select one event below to explore:
 - A: Tuna populations are overfished due to increasing human consumption.
 - B: A massive toxic algal bloom has poisoned the sardines that feed off the algae.

I selected event (circle one): A

Looking at your food web model, describe in the space below how this scenario would impact this marine ecosystem:

Mission US – An Interactive Way to Learn History



In this interactive game, "For Crown or Colony", you will be put into the shoes of a printer's apprentice in 1770 Boston, where you will encounter Patriots, Loyalists, and the Boston Massacre.

Go to https://mission-us.org and click on "Register" to set up a free account. (No personal information is required.) If you played the game last week, just log in.

Last week, you went through the Prologue (Leaving Home) and Part One (New in Town). This week go through Part Two (Death in Boston) and complete the following vocabulary activity.

IMPORT

As a verb: (im-PORT) to bring something in from another country, usually for trade.

As a noun: (IM-port) something made or grown in another country that is then shipped here, usually so that it may be resold.



EXPORT

As a verb: to ship goods that are made or grown in one country to another country, where they will be sold.

As a noun: something made or grown in one country that is sent to another country for sale.



LOYALIST

Literally, a loyalist is any person who is loyal to his or her king. In the dozen or so years leading up to the Revolutionary War, a Loyalist

was a person who continued to support King George III and his policies in the American colonies. Loyalists were opposed to the growing movement that favored independence from the British Empire.



BOYCOTT

As a verb: to refuse to deal with a process, an organization or a company as a form or expression of protest against it. Usually, there is a group of people who agree to

boycott rather than just one person. You could say, "Many colonists boycotted British tea."

As a noun: the name of the process that is described above. So, you could say, "There is a boycott on British tea."





HOMESPUN

Literally, homespun is cloth that is made at home by spinning thread on a wheel and then weaving that thread into cloth on a loom. In general, though, it meant things that were made at home in

America. Homespun contrasted with manufactured or other goods that were imported from England.



As a verb: (pro-TEST) to complain about or object to something. While individuals may protest (you might protest in a restaurant if your food takes too long to come to you), here is means to do it publicly, so that others see or hear. When you protest in this way, you are trying to alert others to the situation and influence them to join you.

As a noun: (PRO-test) the name of the process described above.



EFFIGY

An effigy is a dummy, often crudely made, that is supposed to represent a real person who is disliked. One form of protest in 1770s Boston was to make effigies of unpopular Loyalists, like tax collectors, and hang them by the neck from the Liberty Tree, to the cheers and huzzahs of the assembled crowd



TAXES

Taxes are monies that a government makes its citizens pay. Tax money is used for various things the government needs in order to operate. Taxes pay the salaries of the people who work for the government, and they are used to pay for roads, government buildings like post offices, the military, and so on. Taxes are collected in a variety of ways. One way is a sales tax, usually some fraction of the cost of something that you pay when you buy an item. Direct taxes are paid directly to the government. The Townshend Acts were a direct tax, that is, merchants had to pay it directly to a British tax collector.

TOWNSHEND ACTS

The Townshend Acts (or Duties) were laws passed by the British Parliament in June 1767. They placed a tax on common products imported to America such as lead, paper, paint, glass, and tea. The taxes collected would be used to pay British governors and other officials that were usually paid by local town assemblies. Since the taxes were on imports, merchants were the ones who had to pay them. Then they would have to increase the cost of the goods they sold here to pay themselves back. Also, the laws restated that Writs of Assistance, easy-to-get search warrants, were legal. This irritated Boston merchants because it gave the British military the right to invade the privacy of their homes to search for evidence they had been selling goods to France and other countries in Europe, which was illegal.



Name:	Date:				
•	g and talking about the wo				
	is parents back in Uxbridg	•	in Boston. Use the cards		
and your memory to	help you fill in the missing	g words and terms.			
import	export	Loyalist	boycott		
homespun	protest	effigy	Townshend Acts		
taxes					
My dear Mother and	Father				
wiy dear wiother and	t dutci,				
You know that I have	always been proud to be a	a British subject. I hav	e even thought that some		
day I might visit Engl	and and see the king. But	the events of the last f	ew hours have awakened		
doubts I feel I must re	plate to you				
	iate to you.				
Mr. Edes made it clea	r to me that, in his opinior	n, to British	goods, even necessities		
	some way evil. I overhea				
would rather take the	time and effort to make a	nd wear clothing of	, rough as it is,		
	lishman who would	_	_		
_	_ from Americans on the t		_		
of all British goods.					
of all british goods.					
I found a newspaper a	article that identifies the A	merican merchants wh	no are and		
who continue to impo	ort British goods despite th	e taxes levied on them	as a result of the hateful		
I must	keep my distance from th	ese men when I go out	to sell because Mr. Edes		
	ha'penny's business from				
•	•				
great many people in	this city, the very word "I	mporter has become a	a profamity!		
Until todav. I felt it w	as not my place to take sid	les. But now things ha	ve changed. Remember		
,	2 1	C	C		
	m I wrote you yesterday?	1 1 0			
morning to	against his continued	trade with England A	noighbor of his Mr		



Richardson, also a Loyalist, was roughed up by the crowd. His wife was hit by an egg. In response, he went to his roof, loaded his musket and snapped off a shot at the protestors. A boy younger than I am, Christopher Seider, was cut down, and later today, he died of his wounds, may G-d have mercy on his soul!

I have overheard talk of a further protest in which an ______ of Mr. Richardson will be hung from a limb of the Liberty Tree. And I have heard some plans about Poor Christopher's funeral about which I will write further after it is done.

I pray, Mother and Father, that you and Samuel are well, and that G-d is watching over our Christopher and keeping him safe, wherever he is.

Your loving son,
Nat



ESL at Home 3-5 Weeks 9-10 Use notebook paper to complete these activities. Do one each day!

Monday	Tuesday	Wednesday	Thursday	Friday
Pick a character from a book. Write a message that character would post on social media! Can include pictures!	Use things in your home to create a kind of store (clothing, furniture, etc.). Write what you will sell and what it will cost! Example: Red t-shirt: \$10 Jeans: \$17.99 Gold necklace: \$4.50	Create a cooking show! Choose something to make with your family! Explain the steps of how to make the dish while you are cooking together!	Make a t-chart of your toys that are light.	Imagine you were an animal (Example : horse, cow, pig, chicken) that lived on a farm where all the animals could talk. Write and draw about your adventure with your animal friends.
Monday	Tuesday	Wednesday	Thursday	Friday
Find items around your house and create an instrument. Come up with a song and write lyrics to it!	Pick a character from a TV show, movie, or book. Write and describe the character. Example: Batman is wearing black. He is kind because he saves others.	Read a story or chapter aloud to your family, but don't read the end (or what happens next). Have them predict what will happen. Then read it to them and see if they were correct!	Interview your parents or grandparents about what games they played when they were little. Create a venn diagram about how games are similar and different. You Parent	List four things in your home that produce light energy. List four things in your home that produce heat energy. List four things in your home that reflect light.