



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:

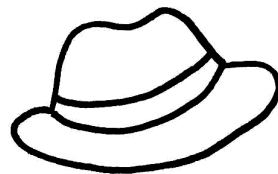
- think of motives of the characters to solve the mystery
- put the clues together to solve the problem or crime while reading
- Look for clues some are hidden and not obvious
- May have misleading clues (red herrings)
- Foreshadowing helps the reader notice the clues

(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?

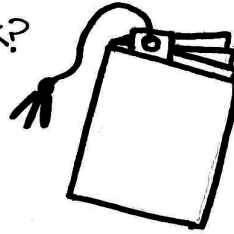
- They all have a problem (a mystery!).
- Some mysteries have a crime.
- They all have detectives.
- Detectives look for clues.
- Most have sidekicks, co-detectives, or someone to talk to.
- They have a victim.
- They have suspects.
- Some suspects have a motive.
- There is a witness.
- There is a solution by the end.



Mystery readers look for...

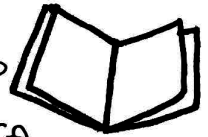
At the start of mysteries, readers look for...

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



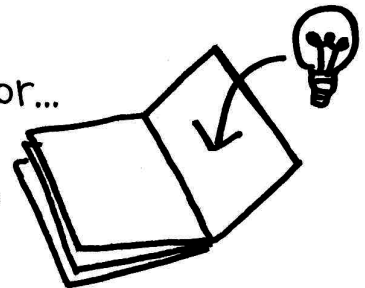
Mystery readers look in the middle of a book for...

- 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?



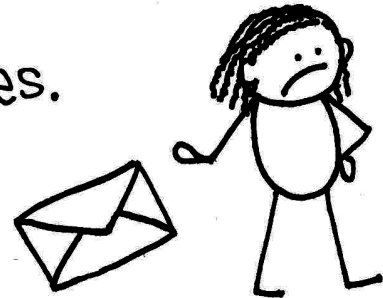
Mystery readers look in the end of a book for...

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

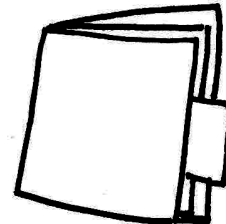


How to Find Hidden Clues

- Remember red herring clues.



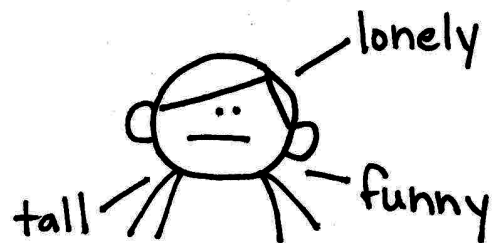
- If something new and big happens, a clue may have slipped by you.



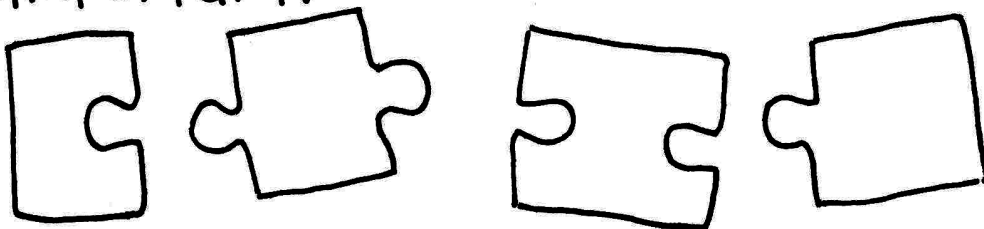
- Look where many readers may not have noticed: dialogue, jokes, or descriptions of characters.



LOL!



- Think about how details may be connected to other details you thought were unimportant.



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 finds 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.

But IS it good?

_____. 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

He is brought to a very fast boat in an ocean filled 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*



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.

The choice board features a central box labeled "Mystery Writing". Surrounding it are several anchor charts and icons: "Essential Questions" (a white box with black text), "Mystery Plot Elements" (a dark box with a white document icon), "Mystery Characters" (a white box with a black silhouette of a head with a question mark), "Planning Characters" (a grey box with silhouettes of five people), "Link to Student Writing" (a starburst shape), "What is a Mystery?" (a grey box with a magnifying glass icon), "Planning Setting & Problems" (a dark box with a white silhouette of a person and the word "MYSTERY"), "Strategies for Writing with Depth" (a starburst shape), "Varying Sound & Sentences" (a speech bubble shape), "Narrator's Impact" (a white box with black text), "BUILDING A MYSTERY" (a large, bold, black box), "Revise!" (a white box with black text), and "Check" (a grey box with a "TOP SECRET" stamp icon).

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?



What is a Mystery? Everyone enjoys a good mystery! A **mystery** is a fictional story in which a character needs to figure out who committed a crime. Whether it is on television, at the movies, or in a game or book, many people enjoy the challenge of figuring out who is responsible for a crime.

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. Most mysteries 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 professional or amateur **sleuths**. 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.



RICKS-BRICKS

Defendant Testifies

13

Clue

A fact or object that helps to solve mysteries.

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

Crime

An act that is against the law.

Mystery Plot Elements

Evidence

Something that helps prove who committed the crime.

A red herring is a distraction!

Red Herring

A false lead that throws the investigator off track.


Suspect

A person who is believed to have possibly committed the crime.




Victim

Someone who is harmed or suffers some loss because of the crime.



Witness

Someone who saw the crime being committed and can provide some information.



Sleuth

Another name for a detective.



Mystery Characters

Start thinking...what characters will you include?


Detective

A person who investigates mysteries and gathers information.



Alibi

An excuse that a suspect uses to show that he or she was somewhere other than at the scene of the crime when the crime was committed.



MYSTERY ELEMENTS

Characters
Suspects are characters who may have caused the problem the mystery is trying to solve. Detectives or investigators try to solve the mystery.

<p>Suspects</p> <p>You will need to create suspects for your mystery story. You must have at least three suspects. You will need to write a short description of each suspect and why they are suspected of committing the crime.</p> <p>Circle the suspect who will end up being guilty of the crime.</p>	<p>Who Are Your Suspects?</p>
<p>Detective</p> <p>You will need to have a detective in your story. The detective can be a child or an adult. Describe your detective and tell a little bit about him or her. If your detective has a partner or a helper, describe him or her as well.</p>	<p>Who Is Your Detective?</p>

<p>Suspects</p> <p>You will need to create suspects for your mystery story. You must have at least three suspects. You will need to write a short description of each suspect and why they are suspected of committing the crime.</p> <p>Circle the suspect who will end up being guilty of the crime.</p>	<p>Who Are Your Suspects?</p> <p>Store manager</p> <p>old lady customer</p> <p>cashier</p>
<p>Detective</p> <p>You will need to have a detective in your story. The detective can be a child or an adult. Describe your detective and tell a little bit about him or her. If your detective has a partner or a helper, describe him or her as well.</p>	<p>Who Is Your Detective?</p> <p>detective A lady / nice / about 50 / likes with kindness</p> <p>detective B lady / "bad guy" / "kiss" / looks</p>

Setting
The location where the mystery takes place.

Plot
The plot is the story of the mystery. Usually there is

- A problem or puzzle to solve
- Something that is missing
- A secret
- An event that is not explained

Most mystery plots use suspense. This means that the reader does not know the solution while he or she is reading the mystery.

Setting	What Is Your Setting?
Decide where your story will take place. A mystery can take place anywhere, but here are some ideas: a school, an amusement park, a baseball field, your house, an airport, the mall, or the library. Don't forget to include the store the crime was committed in the setting of your story.	
Problem	What Is Your Problem?
In order for a story to be a mystery there must be a puzzle, secret, or mysterious problem to be solved. You must decide what crime or prank has been committed, or what has been stolen. Good suggestions come all happen in your story. Some suggestions include something being stolen, something or someone gone missing, anonymous letters being sent to a character, strange events or unexplainable noises, etc. <small>*Please do not choose a problem that includes violence.</small>	

Planning Your Mystery

Setting	What Is Your Setting?
Decide where your story will take place. A mystery can take place anywhere, but here are some ideas: a school, an amusement park, a baseball field, your house, an airport, the mall, or the library. Don't forget to include the store the crime was committed in the setting of your story.	<ul style="list-style-type: none"> * school * the beach * grocery store * mall * any neighborhood * theater
Problem	What Is Your Problem?
In order for a story to be a mystery there must be a puzzle, secret, or mysterious problem to be solved. You must decide what crime or prank has been committed, or what has been stolen, or what mysterious event will happen in your story. Some suggestions include something being stolen, something or someone gone missing, anonymous letters being sent to a character, strange events or unexplainable noises, etc. <small>*Please do not choose a problem that includes violence.</small>	<ul style="list-style-type: none"> * all the hand sanitizer is gone * the toilet paper is missing * the secret guy disappeared

Clues
Clues are hints that help the detectives and reader solve the mystery. They can be things people say or do or objects that are found.

Distractions
Distractions are things that lead an investigator off the path, including clues that do not add up to a solution but make the search longer.

Structure
Structure refers to the way the story is set up. Most mysteries have a structure like this:

- Introduction: learn about the problem, meet characters
- Body of story: someone is working to solve the mystery
- Conclusion: mystery is solved

Clues	What Are the Clues in your story?
You must include clues that lead to the suspect.	<ol style="list-style-type: none"> 1. muddy footprints 2. a face mask left behind 3. sanitizer drips 4. flooding toilet name tag
These clues might include fingerprints, witnesses, items left at the scene of the crime, or clues to the mystery or anything else that you think might help the reader figure out who is guilty.	As other cashier says no
Sequence of Events	
Using the clues below, create a sequence of events that leads to the solution in the mystery. If there are not enough clues, add an additional clue of your own.	
1	Customers complain - toilet paper is missing
2	investigation starts - interviews
3	sanitizer knocked over - drips all over the shelves
4	face mask tucked behind lysol spray on top shelf
5	muddy footprints up the aisle
6	cashier interrogated
7	flooding toilet in men's room
8	stackpile found in secret closet at store
	manager ordered to clean toilets

BUILDING A MYSTERY

SCHOLASTIC
http://teacher.scholastic.com

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




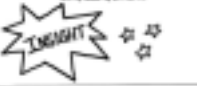


When I wake up, the other side of the bed is cold. My fingers stretch out, seeking Prim's warmth but finding only the rough canvas cover of the mattress. She must have had bad dreams and climbed in with our mother. Of course, she did. This is the day of the reaping.

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.

Strategies for writing with Depth

<p>Try to understand what is unknown about your topic by asking questions.</p> 	<p>Take notes and organize the know well and ask, "where's the mystery here?"</p> 
	<p>Imagine how an idea or topic applies to multiple situations in your life.</p> 
	<p>Ask tough questions and try to answer them.</p> 
<p>Write with both big images and small details.</p> 	<p>Don't worry about finding "perfect" thoughts. Let your pencil fly freely!</p> 
<p>Write about the same idea or topic repeatedly from different perspectives.</p> 	

Steal Back the Mona Lisa By Meghan McCarthy

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

Wake up, Jack, wake up!
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Jack struggles out the window. **QUICK JACK! USE THE LASER LIGHT!**

A car is waiting for him outside. A very **FAST** car.
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Jack's mission is to...

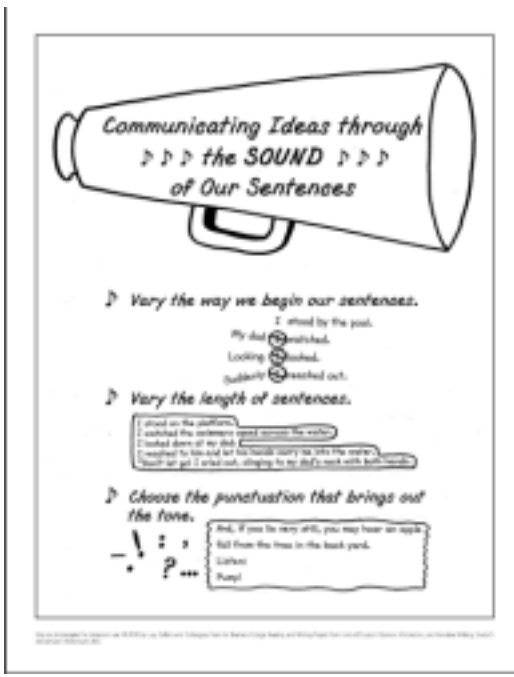
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Meanwhile, the crooked crooks are designing plans to ruin the MONA LISA!

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.



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-I 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 cooking up a mystery, authors use this tasty recipe.

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

CHARACTERS:

- Suspects:** Characters believed to have possibly committed the crime
- Detective:** Character trying to solve the mystery
- Witnesses:** Characters who saw the crime being committed

SETTING:

- This is the location where the mystery takes place.

PLOT:

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

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

CLUES:

- Clues are hints that can help the reader and the detective solve the mystery. 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.)

RED HERRINGS:

- These are distractions or fake clues that may lead the reader or the detective off track. Red herrings often make it more difficult to solve a mystery. (Check the box if the mystery you read had a red herring.)

RECIPE FOR A MYSTERY:

Most mysteries are set up the same way. The structure of a mystery usually looks like this:

- Beginning:** Characters are introduced and the reader learns about the problem
- Middle:** Detectives work to solve the mystery by interviewing suspects and gathering clues
- End:** The mystery is solved



"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.

The Robbery at the Wang School

By JD

“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.

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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 thesaurus 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.

Name : _____

Score : _____

Teacher : _____

Date : _____

3 Minute Drill

$$\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 1 \\ \hline \end{array}$$



Name: _____

Comparing Fractions

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

$$\frac{1}{2} \bigcirc \frac{4}{5}$$

$$\frac{8}{10} \bigcirc \frac{2}{3}$$

$$\frac{4}{6} \bigcirc \frac{2}{8}$$

$$\frac{10}{12} \bigcirc \frac{5}{6}$$

$$\frac{4}{10} \bigcirc \frac{8}{12}$$

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

$$\frac{3}{6} \bigcirc \frac{1}{3}$$

$$\frac{6}{8} \bigcirc \frac{10}{12}$$

$$\frac{2}{5} \bigcirc \frac{6}{15}$$

$$\frac{5}{6} \bigcirc \frac{3}{4}$$

Equivalent Fractions

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

Write an Equivalent Fraction

$$\frac{\square}{6} = \frac{4}{12}$$

$$\frac{3}{4} = \frac{\square}{8}$$

$$\frac{8}{12} = \frac{4}{\square}$$

$$\frac{1}{\square} = \frac{2}{6}$$

$$\frac{4}{6} = \frac{8}{\square}$$

$$\frac{1}{2} = \frac{\square}{10}$$

$$\frac{\square}{6} = \frac{2}{3}$$

$$\frac{5}{\square} = \frac{10}{12}$$

$$\frac{2}{\square} = \frac{4}{8}$$

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

$$\begin{array}{r} 5 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$$

$54 \div 9 = \underline{\hspace{2cm}}$

$14 \div 7 = \underline{\hspace{2cm}}$

$25 \div 5 = \underline{\hspace{2cm}}$

$60 \div 10 = \underline{\hspace{2cm}}$

$24 \div 6 = \underline{\hspace{2cm}}$

$36 \div 12 = \underline{\hspace{2cm}}$

$28 \div 7 = \underline{\hspace{2cm}}$

$12 \div 4 = \underline{\hspace{2cm}}$

$96 \div 8 = \underline{\hspace{2cm}}$

$42 \div 6 = \underline{\hspace{2cm}}$

$45 \div 5 = \underline{\hspace{2cm}}$

$35 \div 7 = \underline{\hspace{2cm}}$

$72 \div 6 = \underline{\hspace{2cm}}$

$12 \div 12 = \underline{\hspace{2cm}}$

$18 \div 6 = \underline{\hspace{2cm}}$

$88 \div 8 = \underline{\hspace{2cm}}$

$36 \div 6 = \underline{\hspace{2cm}}$

$16 \div 2 = \underline{\hspace{2cm}}$

$108 \div 12 = \underline{\hspace{2cm}}$

$21 \div 7 = \underline{\hspace{2cm}}$



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 $\frac{1}{2}$ of a chocolate bar to make a s'more. Tasha will only eat a s'more that is made with exactly $\frac{2}{5}$ 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.

1. a fraction

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

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

2. 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**.

A. $\frac{51}{100} =$ _____ $\frac{5}{10} =$ _____ $\frac{63}{100} =$ _____ $\frac{92}{100} =$ _____

B. $0.25 =$ _____ $0.4 =$ _____ $0.40 =$ _____ $0.85 =$ _____

C. $\frac{25}{10} =$ _____ $0.15 =$ _____ $0.94 =$ _____ $\frac{55}{100} =$ _____

D. $\frac{73}{100} =$ _____ $\frac{82}{100} =$ _____ $\frac{7}{10} =$ _____ $0.3 =$ _____

E. $0.6 =$ _____ $0.45 =$ _____ $0.95 =$ _____ $\frac{64}{100} =$ _____

F. $\frac{22}{100} =$ _____ $0.79 =$ _____ $\frac{43}{10} =$ _____ $0.5 =$ _____

G. $\frac{1}{10} =$ _____ $\frac{4}{10} =$ _____ $0.1 =$ _____ $\frac{32}{100} =$ _____

H. $\frac{99}{100} =$ _____ $0.2 =$ _____ $\frac{2}{10} =$ _____ $\frac{74}{100} =$ _____

I. $\frac{9}{10} =$ _____ $\frac{8}{10} =$ _____ $0.66 =$ _____ $\frac{28}{100} =$ _____

Name: _____

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?



- How many cards do Lynn and Paco get altogether? _____
- How many cards does Todd get? _____
- There are 12 cards in the pack. What fraction represents the whole pack of cards? _____
- 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? _____
- What fraction of the pack do Lynn and Paco get altogether? _____
- Explain how you could find the fraction of the pack that Todd gets.

Solve the problems.

1 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 $\frac{7}{12}$

D $\frac{12}{12}$

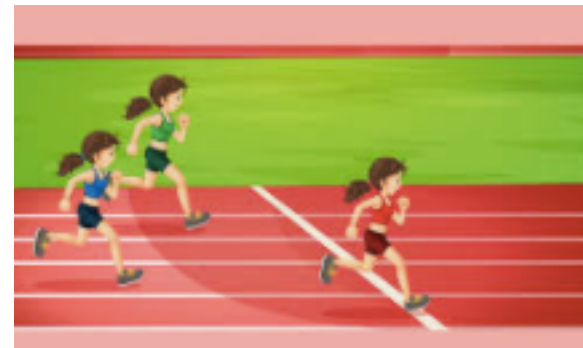
3 Lee's muffin mix calls for $\frac{2}{3}$ cup of milk and $\frac{1}{3}$ cup of oil. How much more milk than oil does she need for the muffin mix?



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?

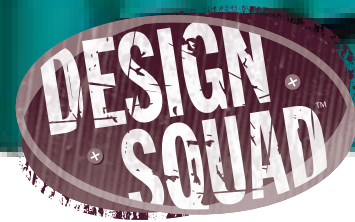
Hannah and her friend are training to run in a 2-mile race. On Monday, Hannah ran $\frac{1}{2}$ mile. On Tuesday, she ran $\frac{1}{5}$ mile farther than she ran on Monday.

- 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?



CHALLENGE 1

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.

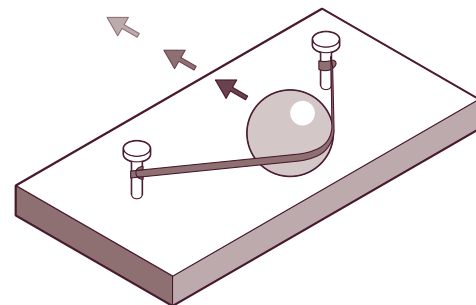
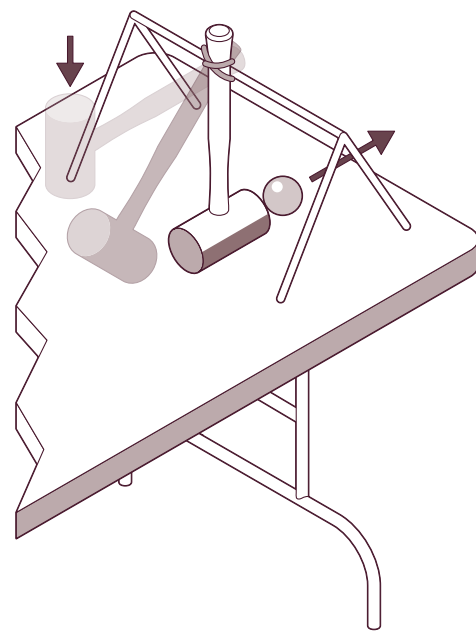
- Will my machine use a pendulum or rubber band (or a combination) to send a ball into the cup?
- How will I stop the machine from launching the ball before I'm ready to release it?
- How will the machine be triggered when I'm ready to launch the ball?
- How will I make sure the pendulum or rubber band 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.

KICKING MACHINE

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.

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.

➤ intel.com/education/designanddiscovery



Photo: Mika Tomozak

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.



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



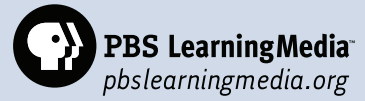
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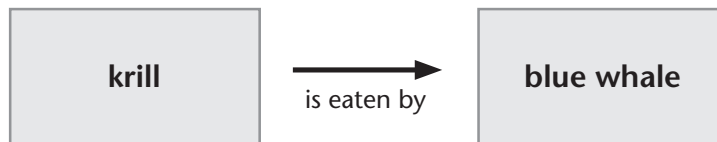


Modeling Marine Food Webs and Human Impacts on Marine Ecosystems

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/f1fbc8b-d2b4-4b0b-acc8-5647d5b81241/blue-whale-barrel-roll/>

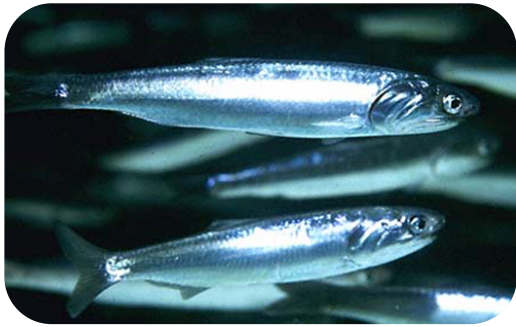


PBS LearningMedia
pbslearningmedia.org


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

 **Food**
Phytoplankton,
zooplankton (including
krill and larval fishes)

 **Home**

Photic "sunlight" zone

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

Image: Joyce and Frank Burek



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

 **Food**
Phytoplankton

 **Home**

Throughout the ocean



Blue Whale
Balaenoptera musculus

 **Food**

Zooplankton (krill)

 **Home**

Photic "sunlight" zone

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

Image: NOAA



Decomposers

Includes bacteria

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

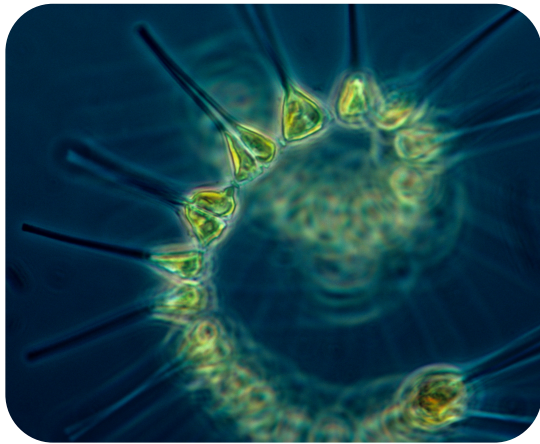
 **Food**

Waste of living organisms,
dead organisms

 **Home**

Throughout the ocean

Image: Mark Conlin, NOAA



Phytoplankton

Includes diatoms and dinoflagellates

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

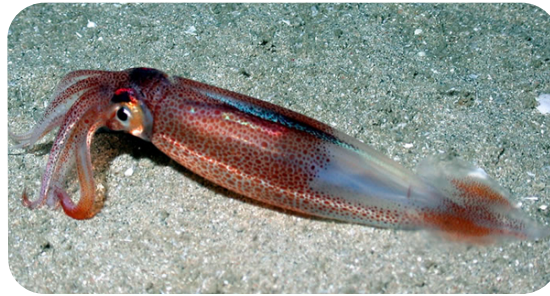
Image: NOAA MESA Project

Food

Sunlight
(photosynthesis)

Home

Photic "sunlight" zone



Market Squid

Loligo opalescens

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

Image: NOAA

Food

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

Home

Photic "sunlight" zone
& twilight zone



Pacific Herring

Clupea pallasii

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

Image: NOAA Fisheries

Food

Crustaceans,
zooplankton (krill)

Home

Coastal waters
(photic "sunlight" zone)



Pacific Jack Mackerel

Trachurus symmetricus

Forms large schools; can live up to 30 years.

Food

Zooplankton,
fish (including anchovies
and sardines)

Home

Photic "sunlight" zone
& twilight zone

Image: NOAA NMFS



Food

Zooplankton

Home

Photic "sunlight" zone

Moon Jelly
Aurelia labiata

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

Image: Joyce and Frank Burek



Food

Squid, anchovies, sardines, herring

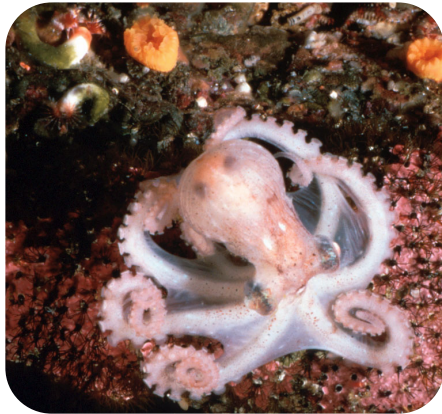
Home

Photic "sunlight" zone

Pacific White-Sided Dolphin
Lagenorhynchus obliquidens

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



Food

Small crustaceans, fish (including anchovies and sardines)

Home

Coastal waters (photic "sunlight" zone)

Red Octopus
Octopus rubescens

Kills its prey by injecting it with poisonous secretions.

Image: Steve Fisher



Food

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

Home

Photic "sunlight" zone

Blue Shark
Prionace glauca

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

Image: Mark Conlin, NOAA



Leatherback Sea Turtle

Dermochelys coriacea

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



Food

Moon jelly,
other jellyfish



Home

Photic "sunlight" zone
& twilight zone



Pacific Sardine

Sardinops sagax

Forms large schools; can live up to 13 years.

Image: NOAA Fisheries, Southwest Fisheries Science Center



Food

Zooplankton,
phytoplankton



Home

Photic "sunlight" zone



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.

Image: Matt Wilson/Jay Clark, NOAA NMFS AFSC



Food

Phytoplankton



Home

Throughout the ocean



Pacific Bluefin Tuna

Thunnus orientalis

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

Image: TOPP; Copyright Randy Wilder, Monterey Bay Aquarium



Food

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



Home

Photic "sunlight" zone

Use your food web models to predict the impacts that the loss of a particular species would have on this marine ecosystem.

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 B

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.

MISSION 1: "For Crown or Colony?"
Part 2: Death in Boston (February 22, 1770)
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."



MISSION 1: "For Crown or Colony?"
Part 2: Death in Boston (February 22, 1770)
Vocabulary Activity

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.



PROTEST

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 it 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

MISSION 1: "For Crown or Colony?"
Part 2: Death in Boston (February 22, 1770)
Vocabulary Activity

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.

MISSION 1: "For Crown or Colony?"
Part 2: Death in Boston (February 22, 1770)
Vocabulary Activity

Name: _____

Date: _____

Activity: After reading and talking about the words or terms on the flash cards, read this letter Nat Wheeler sent to his parents back in Uxbridge after his second day in Boston. Use the cards and your memory to help you fill in the missing words and terms.

import	export	Loyalist	boycott
homespun	protest	effigy	Townshend Acts
taxes			

My dear Mother and Father,

You know that I have always been proud to be a British subject. I have even thought that some day I might visit England and see the king. But the events of the last few hours have awakened doubts I feel I must relate to you.

Mr. Edes made it clear to me that, in his opinion, to _____ British goods, even necessities like paper or tea, is in some way evil. I overheard a conversation in which Mrs. Edes said she would rather take the time and effort to make and wear clothing of _____, rough as it is, than to enrich an Englishman who would _____ fine cloth to America while the King collected _____ from Americans on the trade. She feels there should be a _____ of all British goods.

I found a newspaper article that identifies the American merchants who are _____ and who continue to import British goods despite the taxes levied on them as a result of the hateful _____. I must keep my distance from these men when I go out to sell because Mr. Edes would never accept a ha'penny's business from them. I believe that for Mr. and Mrs. Edes, for a great many people in this city, the very word "Importer" has become a profanity!

Until today, I felt it was not my place to take sides. But now things have changed. Remember Mr. Lillie, about whom I wrote you yesterday? A crowd of people gathered near his store this morning to _____ against his continued trade with England. A neighbor of his, Mr.

MISSION 1: "For Crown or Colony?"
Part 2: Death in Boston (February 22, 1770)
Vocabulary Activity

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!




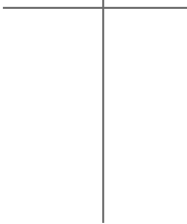

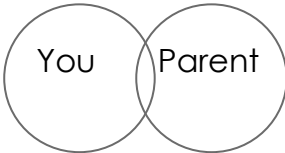
I have overheard talk of a further protest in which an _____ of Mr. Richardson will be hung from a limb of the Liberty Tree. And I have heard some plans about Poor Christopher's funeral about which I will write further after it is done.

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
<p>Pick a character from a book. Write a message that character would post on social media! Can include pictures!</p>   	<p>Use things in your home to create a kind of store (clothing, furniture, etc.). Write what you will sell and what it will cost!</p> <p>Example: Red t-shirt: \$10 Jeans: \$17.99 Gold necklace: \$4.50</p>	<p>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!</p>	<p>Make a t-chart of your toys that are heavy and toys that are light.</p> 	<p>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.</p>
Monday	Tuesday	Wednesday	Thursday	Friday
<p>Find items around your house and create an instrument. Come up with a song and write lyrics to it!</p> 	<p>Pick a character from a TV show, movie, or book. Write and describe the character.</p> <p>Example: Batman is wearing black. He is kind because he saves others.</p>	<p>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!</p>	<p>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.</p> 	<p>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.</p>