

Day 1: English Language Arts

What is this lesson about?: In this lesson, you will consider the theme for the week, which is “Environment.” You will explore what “environment” is in fictional story-telling by learning about story **settings**. In the next two classes, we will continue exploring settings of stories and how the setting informs a story’s theme, mood, and plot.

Step 1: Reflect on this week’s theme

This week, your lessons are organized around the theme of “Environment.” Write a definition for “environment” below.

Circle the words below that you think are synonyms to “environment.” (*Reminder: A synonym is a word or phrase that means exactly or nearly the same as another word*)

Habitat Life Surroundings America Theory Place
Farm Structure Setting Neighborhood

Look at the definition of environment on the next page. Was your definition close?
After looking at the definition of Environment, list 5 environments in which you could find a bird?

Question to consider: Does our environment affect how we act? How we think? How we feel?
Write down a short answer:

Step 2: Learn about “settings” and environments in stories

Step 3: Read and answer the questions.

Read the passage and answer the following questions.

As Maribelle hurried down the street, the wind swept the snow along the sidewalk and hid her footsteps, so that it looked as if no one had passed. Above her, the cold, silent skyscrapers of the city loomed. The whole block was eerily silent in the snowstorm, and she pulled her coat tightly around her. Maribelle had only moved here a few months before. She came because she wanted to be a singer. But right now, she was frightened.

Question 1: Where do you think Maribelle is?

New York

Question 2: What quote helped you to determine where Maribelle is?

A "Above her, the cold, silent skyscrapers of the city loomed."

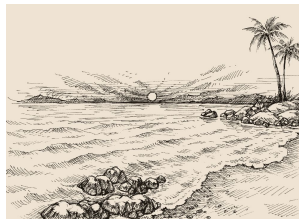
B "Maribelle had only moved here a few months before."

C "But right now, she was frightened."

D "She came because she wanted to be a singer."

Setting can symbolize, or stand for, other elements of a story. For example, when setting changes, a character might change. Setting can also symbolize what a character is feeling in a particular scene. Setting can also help us understand the choices that characters make.

Read the following passage and answer the question.



Gilberto had been excited to go to the beach but when he got there and saw how crowded it was, he became annoyed. The sun twinkled in the sky, a warm yellow globe. The sound of the ocean drummed in his ears and the sand itched his ankles and feet. Beside him, his sister slurped loudly on an ice cream cone. "Could you not?" Gilberto asked.

Question 1: What quote about the setting helps you to understand how Gilberto is feeling?

A "The sound of the ocean drummed in his ears and the sand itched his ankles and feet."

B "The sun twinkled in the sky, a warm yellow globe."

C "Beside him, his sister slurped loudly on an ice cream cone."

D "Gilberto had been excited to go to the beach..."

Question 2: Explain why you chose your answer:

Gilberto is annoyed. The sand itching his ankles and feet would also be an annoyance and cause him to be irritated.

Step 4: Practice developing the setting of a story

Read the following sentences describing a situation or character. Develop a setting that would give context to the sentence and make the sentence more understandable.

Example: Jeremy was standing, waiting. His jaw was clenched and he was sweating.

What setting could this happen in?

In this example, the mood is tense and nervous. A setting that would fit this might be a sporting event, say Jeremy is at a racetrack and is about to race in the 100-meter sprint.

Sentence 1: Chills drew down Maria's spine and she sprang to her feet.

What setting could this happen in?

Haunted house, somewhere scary, watching a horror movie at a theater

Sentence 2: Peter's grandma was looking at him and smiling, she was proud of her grandson.

What setting could this happen in?

At Peter's graduation, during a sporting event

Sentence 3: Marcus stared into the eyes of Kevin, there was no way he was going to let Kevin win this time.

What setting could this happen in?

At the kickoff of a football game or beginning to another sports game, as Marcus and Kevin play a board game

Sentence 4: The wind blew in Jackie's hair as the sun warmed her skin. She could hear the birds chirping in the distance.

What setting could this happen in?

At a park, in the forest, by the seaside, in the country

Step 4: Closing Reflection

Day 2: English Language Arts

What is this lesson about?: Yesterday you learned about setting in fictional stories and today we will explore more about the importance of setting. You will learn how setting impacts the characters, plot, and mood of stories. You will analyze different texts to see how the setting impacts stories and you will have the opportunity to be creative in drawing settings from a text.

Step 1: Setting Impact

Remember from yesterday that a story's setting is its time and place, however a setting is much more than just the characters' environment. The setting can establish the mood and reveal the characters and conflict. It can even give clues to the theme—the universal message—of a story.

Students use their own creativity to respond to these first set of questions. They will see how a setting can really affect what types of stories are told in a particular environment.

Step 2: Does setting affect the mood?

Step 3: Setting and mood analysis

The **mood** describes how a person feels at any given time. It also reveals the atmosphere of the people, places, or time periods.

Read these three little excerpts. See what they tell you about the character. Likewise, sense what kind of mood these settings evoke:

Spans of Poppies

Her hand reached for the massive, iron door handle. She struggled to pull it toward her. A sapphire studded the top of the handle and, as she slowly made progress on the door, a slash of light popped through. It warmed her face and made her smile, giving her enough energy to heave the massive hunk of wood open wide enough to slip through.

The way the door decisively slammed behind her should've frightened her. Instead, she looked upon spans of green, rolling hills bedecked with colorful poppies and tiny thatched-roof cottages. She debated between rolling down the plush hill at her feet or lifting straight off the ground and flying into the tiny village below.

1. How would you describe the character's mood? How is she feeling?

Here, we learn a few things. First, the main character is determined. She doesn't give up on that heavy door. Second, she's happy. The mood is immediately set when someone considers happily rolling down a plush, green hill.

2. What quote from the text tells you how the character is feeling?

"It warmed her face and made her smile, giving her enough energy to heave the massive hunk of wood open wide enough to slip through."

"She debated between rolling down the plush hill at her feet or lifting straight off the ground"

Filmed in Faithlessness

Dust coated every last surface. He ran his finger across the rows of books, the span of tables, and the wide window frames. It came up black. A fast-winged crow clipped past his ear and he wondered which broken window the ugly creature entered through. As it perched atop a broken spray of glass and squaked at him, he realized he'd never find her again. He was every bit as broken as the tired home, filmed in faithlessness.

3. What have you learned about the main character? How is he feeling?

A filthy home filmed in grime and broken glass rarely evokes hope. Indeed, we learn here that the main character is desolate and faithless. He's lost someone and knows there's no way to get her back. An "ugly creature" squaks at him in his misery, letting readers know conditions are about as bleak as they can get.

4. What quote from the text tells you how the character is feeling?

An "ugly creature" squaks at him in his misery, letting readers know conditions are about as bleak as they can get.

Pink Lemonade and Cookies

The lime green patio umbrella flapped happily in the breeze. It covered strawberry slushies, watermelon pies, and bright, cheerful stacks of donuts. Emily stepped outside to feature a crystal pitcher of pink lemonade and a spray of warm cookies in the center of the table. She had on her favorite summer dress and knew that, as soon as he stepped through that patio gate, her life would never be the same again.

5. How would you describe the character's mood? How is she feeling?

Is there anything a glass of lemonade and a warm cookie can't fix? Clearly this main character is filled with anticipation and hope. The setting features a patio table stocked with the world's favorite foods

and bright, cheerful color. Readers can immediately detect that something wonderful is about to happen.

6. What quote from the text tells you how the character is feeling?

" flapped happily in the breeze"; "She had on her favorite summer dress"

Step 4: Setting & Mood Analysis

Read the following song lyrics.

What two places is Toni Morrison comparing in this poem? (hint: she starts each stanza describing one place, and then moves on to describe another place "out there")

A neighborhood with picket fences, and a town cafe

How are those two places different?

The neighborhood seems quiet, stiff, and lifeless. The cafe feels full of energy and life, free, and happy.

Do you think the writer likes one place more than the other? Which one? Why?

The writer may like the cafe better because she describes the cafe has a bustling and happy place.

What is the **mood** of the first place?

Somber, lifeless, boring

What is the **mood** of the second place?

Lively, happy, energizing

Step 5: Draw the Setting

Day 3: English Language Arts

What is this lesson about?: Today you will explore what home means to you. You will also read a text written by Gwendolyn Brooks that focuses on the importance of home. You will then have an opportunity to write a letter home.

Step 1: Warmup

Step 2: Read the text

Step 3: Answer the questions

Where does this story take place? What is the setting?

The story takes place in the front yard of a house. There is a poplar tree and a little garden area near the front porch.

The story is entitled "home." Why do you think the author chose this title?

The story speaks to home as it is the setting of the story, but the deeper meaning of the story is also about home being where loved ones are. The writer implies that the family will be together and all that they need, no matter what physical space they live in and call "home."

How does Maud Martha feel about their home? Write down two quotes that helped answer this question.

She loves the home they are living in.

When Helen says that other homes are prettier, the author writes "Yesterday, Maud Martha would have attacked her."

"She merely gazed at a little hopping robin in the tree, her tree, and tried to keep the fronts of her eyes dry." This quote shows how much she loves her home because she feels that the tree belongs to her and she tries not to cry when thinking about losing the home.

Consider this quote from the text:

"He lives for us," said Helen. "It's us he loves. He wouldn't want the house, except for us." "And he'll have us," added Mama, "wherever."

What do you think Mama means when she says "He'll have us wherever"?

Mama means that the family being together is the most important thing and that together they are "home."

Is there a difference between a house and a home?

A house is more of a physical space, where home can be a physical space but can also be a feeling of belonging.

What is the conflict in the story? What are they waiting to hear back about from Papa?

The conflict is that the family may lose their home. They are waiting for Papa to come home and tell them whether or not he was able to get the loan, which will allow them to stay in their home.

How does the story end? Is it a happy ending?

Papa comes home and tells them that he got the loan. It is a happy ending because they get to stay in their home.

Share and compare your answers with a classmate.

Step 4: Write Home

Day 4: English Language Arts

What is this lesson about?: For today's lesson, you will explore the debate around whether recycling programs are actually helping our environment. There are both pros and cons to recycling and you will read an article that explains both sides of this debate. You will then have the opportunity to choose a side and prepare for a debate speech in which you make your argument. You will finish your speech tomorrow (you will need today's materials to finish your lesson tomorrow).

Step 1:

From an early age, kids are taught the three R's of protecting the planet: Reduce, Reuse and Recycle. But is recycling really the environmental fix it's made out to be?

Step 2: Read the text

Step 3: Organize your thoughts

Tomorrow you will be asked to prepare a persuasive speech. The purpose of a **persuasive speech** is to convince your audience to agree with an idea or opinion that you present. First, you'll need to choose a side on a controversial topic, then you will **write a speech to explain** your position, and convince the audience to agree with you.

Today you will work on the first step. Use the graphic organizer below to outline your points for a debate.

The topic of this debate is: Should we stop recycling?

What is your position on this topic? Circle one: Yes No

Explain your position:

Argument to support your position	Evidence to support your argument <i>(provide quotes or facts taken from the text)</i>
Pro stopping recycling program example: It is not cost-effective to recycle	It costs more money to recycle plastic than we save in doing so.
Con stopping recycling program example: There are still benefits to recycling even if it does not save	Recycling makes our environment cleaner and makes it better for future generations

us money	
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Step 4: Closing Thoughts

How can debates be positive for our society?

Debates allow people with different viewpoints to share their perspective with others. As a result, people can become more informed. Without debates, our society may not progress as quickly because opposing sides wouldn't make the other side come up with solutions as quickly.

What is a current hot topic or debate that you feel strongly about?

Day 5: Science

Day 5

Week 2 Science Quiz – ANSWER KEY

1. An environmentalist is someone who is concerned with or advocates the protection of the environment.
2. There is far less air pollution as a result of the Coronavirus shutdown.
3. The three main cities in the United States currently showing cleaner air are: Los Angeles
Seattle New York
4. Many people in India are more afraid of dying of hunger than dying of the Coronavirus.
5. Global warming is the gradual increase of the Earth's temperature.
6. A flood is an example of a natural disaster.
7. East Africa is experiencing an outbreak of locusts.

Word Bank

flood
locusts
Japan
worms
pollution
San Diego
Los Angeles
environmentalist
New Orleans
New York
Seattle
India
Congo
hunger
global warming

Day 1: Environment/Cell Phones



What is this lesson about?:

Today's lesson is about Cell Phone purchasing plans. Every day you are bombarded with advertisements about different cell phone purchase options. In this **environment** it's easy to make poor decisions or get confused. Hopefully, today's project will help on this.

But first: Today's Warm-Up

It's spring. You plant a small tree outside. It is 6 inches tall when you plant it.

- If it grows 6 inches every month for 5 months, how tall will it be in 5 months (In inches? In feet and inches)?
- If it **doubles in size** every month for 5 months, how tall will it be in 5 months? (In inches? In feet and inches)?
- If it doubles in size for 3 months and then grows 6 inches for the last 2 months, how tall will it be in 5 months?

$$6 \times 5 = 30 \quad \left\{ \begin{array}{l} 30 + 6 = 36 \text{ in} \\ = 3 \text{ feet} \end{array} \right.$$

$$6 \times 2 = 12 \quad \left\{ \begin{array}{l} 12 \times 2 = 24 \\ 24 \times 2 = 48 \end{array} \right. \quad \left\{ \begin{array}{l} 48 \times 2 = 96 \end{array} \right.$$

$$6 \times 2 = 12 \quad \left\{ \begin{array}{l} 12 \times 2 = 24 \\ 24 \times 2 = 48 + 6 + 6 = 60 \text{ inches} \\ = 5 \text{ ft} \end{array} \right.$$

$$48 \times 2 = 96$$

$$\downarrow$$

$$96 \times 2 = 192$$

$$\Rightarrow 5 \text{ months}$$

Step 1: Let's consider these different phone/coverage plans, just to make sure we understand the options.

A	The Phone/Plan	What's included	Money At Purchase	Monthly Cost	# of Months
B	iPhone 10 only, pay at purchase	Phone only	\$700	\$0	0
C	iPhone 10 only, pay monthly	Phone only	\$200	\$20	3 years/36 months
D	iPhone 10, plus max coverage, pay monthly	Phone, plus coverage	\$200	\$50	3 years/36 months
E	iPhone 7 only, pay at purchase	Phone only	\$350	\$0	0

F	iPhone 7, plus max coverage, pay monthly	Phone, plus coverage	\$50	\$20	3 years/36 months
G	Coverage only: AT&T	Unlimited	\$75 (first 3 months)	\$25 (after the first 3)	Requires you to sign up minimum of 12 months
H	Coverage only: GOX VERIZON	Unlimited	\$60 (first 2 months)	\$30 (after the first 2)	Requires you to sign up minimum of 12 months
I	Coverage only: Straight talk	Unlimited	\$35	\$35	Pay monthly

Step 2: Answer the questions below, using the information in the chart above. Be careful!!!

If you buy the iPhone 10 on the monthly plan (Row C), how much will you pay for the phone after 3 years (36 months)?

$$\$200 \text{ Down} + \frac{36}{20} = \$920 \text{ Total}$$

How much more is that than if you buy the same iPhone 10 all cash up front (Row B)?

$$920 - 700 = 220 \text{ MORE}$$

- Why would you choose the monthly plan (Row C) instead of the all cash up front plan (Row B)?

*I DON'T HAVE \$700 TO PAY UP FRONT!

How much more is an iPhone 10 than an iPhone 7, all cash up front?

$$\$350$$

- Is that difference worth it? Yes/No. Why?

DEPENDS ON PREFERENCE, NEEDS, WANTS -

If you buy the iPhone 10, plus max coverage, on the monthly plan (Row D) how much will you pay for your phone and coverage after 3 years?

$$\$200 \text{ Down} + \frac{36}{50} = \$2,000 \text{ Total}$$

How much more, over three years is that than a similar plan, but with the iPhone 7 (Row F)?

$$\$50 + \frac{36}{20} = 720 = \$920$$

$$2000 - 920 = 1,080$$

- Is that difference worth it? Yes/No. Why?

\$1,080 MORE!! Depends!

Now, let's take a look at the coverage plans, only.

What is the primary reason to purchase Straight Talk, if it costs more per month than

ATT or Verizon?

- Over 1 year (12 months) how much will you pay for
 - ATT? $12 \times \$25 = \300 For 12 months
 - Verizon? $12 \times \$30 = \360 For 12 months
 - Straight Talk? $12 \times \$35 = \420 For 12 months

What is one good reason to go with AT&T?

ALL TOTAL IT IS THE MOST AFFORDABLE AFTER 12 MONTHS

What is one reason not to go with AT&T?

IT REQUIRES YOU TO PAY \$75 DOWN

Step 3: Make Your Own Plan

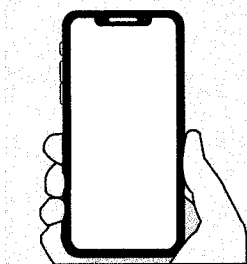
Based on the information above, design an advertisement for a cell phone plan below. You are trying to appeal to teenagers. What sort of plan works best for you and other teenagers you know.

- Do you want to have a high or low cost to acquire the phone? Do you want to bundle the phone plus the service? Do you want this to be month to month or longer?

Write out or draw your cell phone plan below!

Name: .

My plan to not get ripped off buying a cell phone:
~~RIPPED OFF BY CELL PHONE DEALERS - NO WAY!!!~~



— No CORRECT PLAN —

Discuss: share your plan with others, if permissible.

Step 4: Understanding the environmental costs of discarded cell phones.

Each year millions of phones are traded in, thrown away and discarded. They have plastic and metals in them that can cause health and environmental problems. *These problems can be mostly solved if the phone is taken apart and certain pieces recycled.*


There are estimates that each phone that is discarded and not disposed of properly costs society up to **\$10 in pollution.**

Do you have any ideas on what could be done to encourage people to turn in their cell phones to a cell phone store/dealer so that it will be properly taken apart and recycled?

What about some sort of plan where if you turn in an old phone you will get a certain amount of \$. Design a pop-up add below designed to get people to turn in all of their old phones...

Make Your Pop Up Ad HERE

Cash \$ for turning in used cell phones!!!



No CORRECT Pop Up Ad

Day 2: Environment/Cars

But first, Today's Warm-Up

In many cities, you are charged 5 cents each time you use a plastic bag at a grocery store.

- What do you think the purpose of this 5 cents charge?
STOP PEOPLE FROM BUYING PLASTIC BAGS

- Do you agree with this policy? *No CORRECT ANSWER*

In Washington, DC, the City collected \$45,000 the first year they put this law into effect. That means that people purchased 900,000 plastic bags.

By the 3rd year this law was in effect, the City collected \$15,000. About how many plastic bags were sold?

300,000

$300,000 \times \$0.05 = \$15,000$

Why do you think that so many fewer bags were sold by the 3rd year?

No CORRECT ANSWER -

Discuss:

- Do you have a plastic bag tax in your city?
- Is it a good idea?
- If yes, has the plastic bag tax changed your behavior in any way?

No CORRECT ANSWER -

Background Information to get us started

Model Make and Year	Cost	Miles Per Gallon (Gas)
2010 Honda Civic	\$6,000	32
2010 Ford Mustang	\$9,000	12
2010 Toyota Prius (hybrid)	\$7,000	50
2020 Honda Civic	\$24,000	36
2020 Ford Mustang	\$28,000	12
2020 Toyota Prius (hybrid)	\$26,000	55
2020 Nissan Leaf (100% Electric)*	\$34,000	125

* Note: the Nissan LEAF runs on electricity, not gas. The miles per gallon is based on estimating how much an owner pays in increased electric bills to charge the car.

Step 1: The Cost of Gasoline...

Calculating how much gas you will use in 1 year, and how much it will cost for that gas-

Leasing the 2020 Civic with \$2,000 down (out of \$24,000)
 (Remember, under lease you do not own the car)

- Cash paid/down payment on Lease for the car? \$2,000
- All total, how much will your monthly lease payments be? $\$(20 \times 60) = \underline{\$1,000}$
- All total, how much will your maintenance cost be? 0
- After 5 years what is the total LEASE cost of the car? \$17,500
- And how much is the car still worth to you?
 BE CAREFUL--you have to give it back to the dealer and they won't give you any \$ back) 0
- **So, you can't sell the car. How much did it cost you to use it for those 5 years?** 17,500

Step 3: Follow-up Questions based on the 3 scenarios and the answers above.

- Overall, how much did it cost you to operate the car (just the cost + basic maintenance) the car for five years under each plan-
 - All Cash Up Front \$10,500
 - DownPayment and 5 Years of Payment \$13,500
 - Total LEASE cost \$17,500

Discuss (or just jot down short answers)

- What is one good reason to pay all cash up front for the car? Lowest Total Cost!
- What is one good reason to make a downpayment and pay over 5 years? Less \$ up front = still GOOD DEAL
- What is one good reason to LEASE the car? FIXED AMOUNT!

Step 4: Ok, let's go back and take a closer look at the full cost of gasoline

- It costs YOU \$2.75 for a gallon of gas.
- Research shows that each gallon of gas that is used/burned by a car engine costs society an additional \$3.80. This \$3.80 includes the cost of the environmental, health and other problems caused by releasing all of the carbon into the air when we use up gasoline: air pollution that is bad for our lungs, greenhouse gasses that cause temperatures to rise, and more.

- Remember that Ford Mustang that gets 12 miles per gallon. If you drive it 60 miles in a week, how many gallons of gas to you use? do you in 1 week?

5 gallons in 1 wk.
 $60 \div 12 = 5$
 Gallons

No UNEXPECTED COSTS

Price for a Gallon of Gas: \$2.75 (on April 1, 2020)



Estimate how many miles you drive your car each day (select one and circle it):

5 miles/day 15 miles/day 30 miles/day

STUDENT CAN PICK ANY & DO CALCULATIONS ON THAT -

There are 365 days in a year. Assume that you drive your car on 300 of those days. How many miles will you put on your car in 1 year?

A. 9,000

hint: multiply the miles/day x 300 days in a year)

STUDENT CAN CHOOSE

Select which car from the list above you are going to purchase: Prius

How many miles per gallon does it get: 50

About how much money will you spend on gas in 1 year?

$9,000 / 50 \times \$2.75$

\$495

Select a 2nd car option from the list above: MUSTANG

How many miles per gallon does it get: 12

$9,000 / 12 \times \$2.75$

\$2,063

About how much money will you spend on gas in 1 year?

DIVIDE BY B.]
MULTIPLY BY \$2.75

ANSWERS WILL VARY

How much more or less would you spend per year if you purchased one car or the other, based on your car selection?

$2063 - 495 = 1568$

\$1,568 MORE
MUSTANG JUST ON GAS !!

Discuss: Based on this comparison, will the gas mileage your car gets impact what type of car you might buy?

Prius!!

Step 2: Understanding annual maintenance costs

Estimated Yearly Maintenance Costs: One 'hidden' cost of owning a car is the cost of maintaining it. These costs vary. But they include the average cost of changing the oil, keeping good tires on the car, changing the breaks, and doing other 'standard' maintenance that helps keep your car safe and running well. Although this isn't always exact, you now can go online and use tools to help you estimate the average yearly maintenance cost of cars.

Not surprisingly, brand new cars usually have low maintenance costs. Often, with new cars, most or all 'standard' maintenance costs are covered for the first few years.

Also, electric cars (and hybrids) have very low maintenance costs because they don't have a gasoline engine and have a lot less moving parts that can wear out. Let's use the chart below to calculate some maintenance costs.

Car Make and Year	Estimated annual maintenance costs for the next 5 years	Comment
2020 Honda Civic	\$500/year	Almost all standard maintenance costs are covered by warranty for 5 years
2010 Honda Civic	\$750/year	No warranty after 10 years
2005 Honda Civic	\$1200/year	No warranty; includes cost of range of parts that need to be replaced after 15 years
2020 Ford Mustang	\$500/year	Almost all standard maintenance costs are covered by warranty for 5 years
2010 Ford Mustang	\$1,000/year	No warranty after 10 years
2005 Ford Mustang	\$1,500/year	No warranty; includes cost of range of parts that need to be replaced after 15 years
2020 Toyota Prius	\$250/year	Almost all standard maintenance costs are covered by warranty for 5 years
2010 Toyota Prius	\$500/year	No warranty, but estimates of maintenance costs are minimal

For each of the cars in the chart, calculate how much you will spend over the next 5 years on maintenance costs alone.

Car Make and Year	Estimated annual maintenance costs for the next 5 years	Total maintenance cost for the next <u>5</u> years -- Fill in this column!!!
2020 Honda Civic	\$500/year	\$2,500
2010 Honda Civic	\$750/year	$750 \times 5 = \$3,750$
2005 Honda Civic	\$1200/year	$1200 \times 5 = \$6,000$
2020 Ford Mustang	\$500/year	\$2,500
2010 Ford Mustang	\$1,000/year	$1,000 \times 5 = \$5,000$
2005 Ford Mustang	\$1,500/year	$1,500 \times 5 = \$7,500$

2020 Toyota Prius	\$250/year	$250 \times 5 = \$1,250$
2010 Toyota Prius	\$500/year	$500 \times 5 = \$2,500$

After five years, how much more would you spend on maintaining a 2005 Civic Compared to a new 2020 Civic?

$6,000 \text{ vs } 2,500 = \text{\$3,500}$

After five years, how much more would you spend on maintaining a 2010 Mustang compared to a 2010 Prius?

$5,000 \text{ vs } 2,500 = \text{\$2,500}$

Discuss: Explain some of the pros and cons of buying an older car?

What is a good reason to buy a used car? What is one of the downsides of buying a used car?

Pros = LESS EXP Cons ↑ Maint. Costs!

Step 3: Looking at Insurance costs

Basic Liability Insurance: Under 25 years old, male Cost per 1 YEAR			Basic Liability Insurance: Under 25 years old, female Cost per 1 YEAR		
Low Risk	Medium Risk	High Risk	Low Risk	Medium Risk	High Risk
\$800	\$1,200	\$1,600	\$450	\$600	\$900

Marcus is 20 years old. He has a clean driving record, so he is low risk. How much will insurance cost him for 1 year?

Marcus gets two speeding tickets and moves from low risk to **high risk**. How much will basic insurance cost him for 1 year? $\$800 \text{ for } 1 \text{ yr}$

Marcus stays in that category for 3 years. Over 3 years how much will those speeding tickets cost him in insurance (how much more will it cost him to be in the high risk category than the low risk category for 3 years?)? $\text{\$2,400}$

Marcus has a younger sister. She is 18. She is a low risk, female driver. She drives for three years and never gets a speeding ticket and never gets into an accident. How much will she pay for all 3 years in basic insurance? $\text{\$450} \times 3 = \text{\$1,350 TOTAL}$

Discuss: You get a speeding ticket for \$100. Is that the 'full cost' of the ticket? Yes/No.
Discuss.

No! ↑ in insurance is BIG DEAL!

Comprehensive/Collision Insurance. When is it worth it? When should you consider switching to basic only. Review the chart below CAREFULLY and then answer the questions below.

	Value/Cost of the car TODAY	Cost of Comprehensive Insurance for 1 year, for under 25 year old, low-risk driver	Cost of Comprehensive Insurance for 1 year, for under 25 year old, high-risk driver
2020 Honda Civic	\$24,000	\$1,200	\$2,400
2010 Honda Civic	\$6,000	\$600	\$900
2005 Honda Civic	\$3,500	\$500	\$700
2020 Ford Mustang	\$28,000	\$1,800	\$3,200
2010 Ford Mustang	\$9,000	\$900	\$1,200
2005 Ford Mustang	\$5,000	\$600	\$800

How much does it cost to buy comprehensive/collision insurance for a 2020 Honda Civic for a low-risk 22 year-old? How about a high-risk 22 year-old?
 \$1,200 vs \$2,400

Compare that to the cost of the same insurance for a 2020 Ford Mustang. How much more does it cost to insure the 2020 Mustang compared to the 2020 Civic for a low-risk driver?
 \$1,800 vs. \$1,200

- Why do you think it costs more for the insurance on the Mustang? MUSTANG COSTS MORE
- Do you think it is only because the Mustang is a little more expensive? Why else might the insurance be more? No. ALSO => RISKIER DRIVERS

How much does it cost a high risk 22 year old to purchase comprehensive/collision insurance on a 2005 Civic?
\$700

- Discuss: Do you think it is worth it to spend \$700 each year when your car is worth \$3,500? Yes/No. Why?

=> No CORRECT ANSWER & DEFENS.

INSURANCE ONLY !!

If you are a high-risk driver and you are driving a new Mustang around, how much will you pay just in comprehensive/collision insurance over a 3 year period? $\$3,200 \times 3 = 9,600$

- Is it worth it to spend that much money each year on insurance?
No CORRECT ANSWER
- Does that make you consider buying a less expensive car so that you will have lower annual insurance costs? Yes/No?
No CORRECT ANSWER

Step 4: Putting it All Together--This isn't cheap!

What car did you select for the first part of this project in Step 1? Prius 2010
Model and Year?

Based on your driving habits, how much will **gas** cost for 1 year \$495

How much is the **estimated annual maintenance** on that car for 1 year? \$500

How much will it cost you for Insurance? You will need to rate yourself as low, medium or high risk? Circle which one you are: Low Risk Medium Risk High Risk

- How much will you spend on **mandatory Insurance** for 1 year? \$800
- How much will you spend on **comprehensive/collision** for 1 year? \$600

All together, what will it cost you to operate your car for 1 year? \$2395
Remember, this doesn't include the cost of purchasing it!
Wow!!

**Day 3: Environment/Cars, again!
Math**

What is this lesson about?: Today we are going to continue to look at cars and the cost of owning and driving cars.

Today's Warm-Up

Cars and more...New Tires vs Old Tires. What's a better deal?

The tires on your car are worn thin.

The table below has some possible options that you find online and by talking w/ your cousin who knows someone who owns a used tire shop

Tire	Cost	Guaranteed # of Miles
Michelin's Best	\$100 per tire	25,000
Costco Basic	\$70 per tire	20,000
Used from your Cousin	\$50 per tire	No guarantee; he says they are 'almost new'

If you need 4 new tires, how much will a full set of Michelin tires cost? **\$400**
 How about the Costco Basic? **\$280**
 How about the tires from your Cousin? **\$200**

Which set of tires should you buy? What is the main reason for your decision?

No CORRECT ANSWER -

Discuss: What happens to all of the car and truck tires that get worn out? What can be done with them to help preserve our environment?



- MAKE SHOES
- MAKE PLAYGROUND EQUIP -
- Other -

Step 1: Let's look really carefully at 3 scenarios. Review the charts carefully and fill in the indicated spaces using the 'hints'

We are going to keep looking into cars today, including how the cost of a car might vary based on how you purchase it, and the full cost of gasoline.

There are three main ways to 'buy' a car. Pay all cash up front, to pay a small amount down and pay the car off over 3 to five years, or to lease a car for 3 to 5 years. Let's go.

Scenario #1

Purchase Option		
Car Make and Year	2020 Honda Civic	
Price	\$24,000	
Option 1: Pay all cash down		
Cash Paid at Purchase	A	\$24,000
Monthly Payments		\$0
Number of Months		\$0
Total Monthly Pmts		\$0
Estimated Yearly Maintenance		\$500
Number of Years		\$5
Total 5 years of Maintenance	B	2,500
Total Cost All-Purchase + Maintenance	C	26,500
Estimated Resale value in 5 years		\$16,000

X (multiply)

A+B=C

TOTAL COST for 5 yrs = 26,500 - 16,000 = 10,500

Scenario #2

Purchase Option		
Car Make and Year	2020 Honda Civic	
Price	\$24,000	
Option 1: Pay 25% down and finance the rest		
Cash Paid at Purchase	A	\$6,000
Monthly Payments		\$350
Number of Months		60
Total Monthly Pmts	B	21,000
Estimated Yearly Maintenance		\$500
Number of Years		5
Total 5 years of Maintenance	C	2,500
Total Cost All-Purchase + Maintenance	D	29,500
Estimated Resale value in 5 years		\$16,000

X (multiply)

X (multiply)

A+B+C=D

350 x 60 = 21,000

29,500 - 16,000 = 13,500

COST for 5 yrs

Scenario #3

Lease Option			
Car Make and Year	2020 Honda Civic		
Price	\$24,000		
Lease: Pay \$2,000 down and finance the rest			
Cash Paid at start of Lease	A	\$2,000	
Monthly Payments		\$250	
Number of Months		60	X (multiply)
Total Monthly Pmts	B	\$6,000	
Estimated Yearly Maintenance		\$0	With Leased Vehicles, Dealer pays regular maintenance
Number of Years		0	With Leased Vehicles, Dealer pays regular maintenance
Total 5 years of Maintenance		\$0	
Total Cost for you to "Lease" the car for 5 years	C	17,000	A + B = C
Estimated Resale value		\$0	At the end of 5 years, you return the car!

\$250
 60
 15,000
 Cost for 5 yrs
 17,000

Step 2: Now let's see what we have learned from the 3 scenarios.

Purchasing the 2020 Civic with all Cash-

- Cash paid for the car
- All total, how much will your maintenance cost be? (50×5) =
- After 5 years what is the total cost of the car and maintenance?
- And how much is the car still worth?
- **So, if you had decided to sell the car in 2025, how much will it have cost you to have that car for those 5 years?**

24,000
 2,500
 26,500
 - 16,000
 10,500

Purchasing the 2020 Civic with 25% down (\$6,000 out of \$24,000)

- Cash/down payment paid for the car
- All total, how much will your monthly payments be? (350×60) =
- All total, how much will your maintenance cost be? (500×5) =
- After 5 years what is the total cost of the car and maintenance?
- And how much is the car still worth?
- **So, if you had decided to sell the car in 2025, how much will it have cost you to have that car for those 5 years?**

\$6,000
 21,000 +
 2,500 +
 29,500 =
 - 16,000
 13,500

$$\begin{array}{r} 2.75 \\ \times 5 \\ \hline 13.75 \end{array}$$

$$\boxed{\$13.75}$$

- How much does that cost you?
- How much does that cost all of us because of the pollution and health costs of burning that much gas that week?
- How about the Honda Civic (let's round it off and say the Civic gets 30 miles to the gallon).
 - How much does it cost you to drive 60 miles?

$$\begin{array}{r} 2.75 \\ \times 2 \\ \hline 5.50 \end{array}$$
 - How much does that cost all of us because of the pollution and health costs of burning that much gas that week?

$$\begin{array}{r} 3.80 \\ \times 2 \\ \hline 7.60 \end{array}$$

$$\boxed{\$19.00}$$

$$\begin{array}{r} 3.80 \\ \times 5 \\ \hline 19.00 \end{array}$$

$$\text{---} \$5.50 \text{---}$$

$$\text{---} 7.60 \text{---}$$

Discuss (or just jot down short answers)

- Does this cost to society impact what sort of car you would purchase or drive?
- What can we do to make people take this cost into consideration when they drive cars that pollute a lot?

No Corp. Res \rightarrow \$19.00 vs \$7.60 of HARMFUL IMPACT!!

\Rightarrow TAX COST of GASOLINE - OTHER -

Day 4: Environment/Housing Math

Today's Warm-Up

Back to those cell phones, and more...

You walk into a store and they offer you an iPhone 10 for free so long as you purchase a second iPhone 10 for \$200 and sign onto a **three year** plan where you pay \$150 per month. For that \$150, you get both phones and unlimited call/data for three years

Answer these questions to help you consider this deal.

- After three years, how much money will you have paid all total, including the \$200 you put down?
 - Down payment = \$200
 - \$150 x 36 months = 5400
 - Total cost for 2 phones and service for 3 years: $\boxed{51600}$
 - Should you take the deal? Yes/No? Why? $\text{---} \text{Ouch!!!} \text{---}$

$$\boxed{\$5,1600 \text{ Total}}$$

$$\begin{array}{r} 150 \\ \times 36 \\ \hline 900 \\ 4500 \\ \hline 5400 \end{array}$$

Step 1: Compare the three rental options below

One Bedroom Apartment for Rent.
 \$800 per month.
 Water included.
 Tenant pays gas, electric, phone/cable
 Estimated gas: \$45/month

Estimated electric: \$70
 Phone/Cable/other-no estimate
 1 month security deposit due with application

Two Bedroom Apartment for Rent.

\$1200 per month.
 Water included.
 Tenant pays gas, electric, phone/cable
 Estimated gas: \$70/month
 Estimated electric: \$100
 Phone/Cable/other-no estimate
 1 month security deposit due with application

Three Bedroom House for Rent.

\$1800 per month.
 Tenant pays water, gas, electric, phone/cable
 Estimated water: \$60/month
 Estimated gas: \$90/month
 Estimated electric: \$120
 Phone/Cable/other-no estimate
 1 month security deposit due with application

Step 2: Answer the questions below to help figure out which of these options might be best for you

Living on your own: Assuming the estimates are correct,

- How much will it cost you per month for rent and related costs on your own, in a 1 Bedroom Apartment?
- How much will this be over 1 year?

$$800 + 45 + 70 = \$915 / \text{month}$$

$$\$10,950$$

Sharing a 2 bedroom: Assume you find a good roommate and you decide to rent the 2 bedroom apartment.

- How much will your total monthly cost be --- for you and your roommate?
- How much will it cost you per month?
- How much will this be over 1 year?

$$1200 + 70 + 100 = \$1370 / \text{month}$$

$$1370 / \text{month} \div 2 = \$685$$

$$\$685 \times 12 = \$8,220 \text{ yr}$$

Renting a 3 bedroom house: Assume you find 2 good roommates and you decide to rent the 3 bedroom house...

- How much will your total monthly cost be --- for you and your two roommates?
- How much will it cost you per month?
- How much will this be over 1 year?

$$1800 + 60 + 90 + 120 = 2070$$

$$2070 \div 3 = \$690$$

$$\$690 \times 12 = \$8,280 \text{ yr}$$

Step 3: Considering these options and making a decision.

What is one good thing about living alone? *Privacy!*

What is one of the not so good things about living alone? *#*

How much money would you save over 1 year if you lived in a 3 bedroom house with roommates instead of in a 1 bedroom apartment?

Is that savings worth it to you? Yes/No.
 No Corr. Answer

$$\begin{array}{r} 10980 \\ - 8280 \\ \hline \$2700 \end{array}$$

Step 4: Getting Real...

Ok, assume you are 19 and you are working part-time and going to college part-time. Your mom and dad tell you you can stay with them for the next couple of years to save money. They would like you to contribute \$100 per month for rent.

No Corr. Answer

- How much will that cost over 1 year?
- What would be one benefit of living with your parents for another year?
- What would be the downside of living with your parents for another year?
- **Discuss:** Would you accept this offer? Why/Why not?

Assume that at your job you earn \$550 per week. After taxes, you take home \$400 per week (we will learn about taxes this next week).

- How much money will you take home each month after taxes? *\$1,600 (#400x4)*
- **Discuss:** Now, with that amount of pay each month, what housing options look like they could work for you?
No Corr Answer

Day 5: Environment/Credit Cards and Debt Math

What is this lesson about?: We are going to finish out this week looking at Credit Cards and how credit card fees and debt can really get you if you aren't careful. The environment you are living in might have a big impact on how and whether you use a credit card.

Today's Warm-Up (it's a little more than a warm-up!) Let's take a look at cigarette prices and state taxes...

Use the table below to answer the warm-up questions below.

Column A	Column B	Column C	Column D	Column E
State	State Taxes	Other Taxes	Price for Cigarettes Only	Total Price
New York	\$4.35	\$0.40	\$5.70	\$10.45
Louisiana	\$1.08	\$0.21	\$4.13	\$5.42
Missouri	\$0.17	\$0.19	\$4.02	\$4.38
Illinois	\$1.98	\$0.54	\$5.04	\$7.56
Alabama	\$0.68	\$0.14	\$4.59	\$5.37
Pennsylvania	\$2.60	\$0.47	\$3.20	\$8.27

$$B + C + D = E$$

Complete **Column D** in the chart.

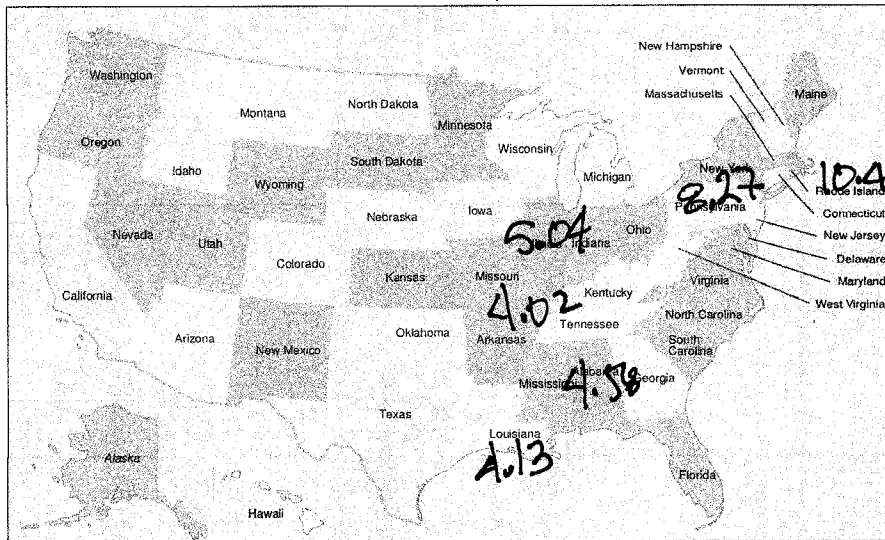
- How much does it cost for the cigarettes ONLY in Illinois? ~~\$5.04~~ \$5.04
- How much does it cost for the cigarettes ONLY in Louisiana? ~~\$4.13~~ \$4.13

Carefully look at **Column B** in the chart.

- Write the states in order of highest to lowest **state taxes** on Cigarettes below:

Miss, Al, Louis, Ill, Pa, NY

- Very roughly place the Total Cost (Column E) in the correct location on the map below in the correct state on the map!



- Write or **DISCUSS if permitted**: What do you notice if anything, from this map once you write the cost of cigarettes in.

Southern States Generally Less \$.

- Write or **DISCUSS if permitted**: Is there any relationship between the price of cigarettes and where the state is located in the US?

Step 1: Understanding the key ways that Credit Cards 'get you'

Annual Fee: This is a flat yearly fee that some credit cards charge for you to have and use the card, no matter how much you use it

- Annual fees range from \$0 to approx. \$50 per year.

Late Fee: Late fee is the flat amount that a credit card company charges you if you don't pay your monthly bill on time. The late fee is the same if you owe the bank \$10 or \$1,000. It kicks in once you are late making your monthly payment.

Interest Rate: Interest rate is the rate the bank charges you for any amount of money that you don't totally pay off at the end of the month.

- If you put \$1000 on your credit card and pay it all off at the end of the month, you pay \$ 0 in interest.
- If you put \$1000 on your credit card and do NOT pay it all off, you start paying interest. If this \$1000 goes unpaid for 1 year, you may pay as much as \$200 in interest (20%).

Minimum Payment: This is a monthly amount that credit card companies charge. It is important to know that the 'minimum payment' is generally a small dollar amount, just enough for them to keep you on the hook, but not enough to help you pay off your loan amount--so if you ONLY pay the minimum amount, you NEVER pay off your credit card.

Carefully review the chart below and then try and answer the questions below.

	Credit Card #1	Credit Card #2	Credit Card #3
Annual Fee	0	50	50
Late Fee	25	20	30
Interest Rate	20%	15%	10%

Step 2: Let's consider Marcus, a very good credit card user!

Marcus is very, very careful with his credit card. He uses it to buy his groceries and a few other necessities each month. He has it set up that he automatically pays off his TOTAL monthly bill each month, automatically, 1 day before the payment is due. He has NO late fees, NO interest charges...

- How much will it cost him to use Credit Card #1 for the whole year? ~~\$0~~
 - How about Credit Card #2? \$50
 - How about Credit Card #3? \$50
- } ANNUAL Fee

- So, what card should he sign up for? **#1**

Step 3: Let's consider Stephanie, under 23 scenarios...

Stephanie is also quite careful. She almost always pays off her Credit Card each month. But occasionally she just pays the Minimum Amount Due. One year ago, she got into a bad car accident. That repair cost her \$2,500.

She didn't have comprehensive/collision insurance, so went out and got a separate credit card just to help her pay off her repair.

Assume that she decided on Credit Card **#3**. Here's what happens:

- For the first 2 months, Stephanie is late with her minimum payments, so she gets charged a late fee each time.
- She gets a part-time job in the evening. Each month she saves some money and puts it in the bank. She isn't late anymore and she does make her minimum payments, but she does **NOT** pay down her credit card balance. Finally after 12 months, she thinks she has saved enough money. How can we calculate how much she will end up spending all together to pay for her car to get fixed using this card.

- A. Annual Fee for the new card:
- B. LATE FEES for the two months she was late?
- C. How much does she owe in interest (approximately).
 - Hint: what is 10% of the \$2500 she borrowed?
- D. Original amount of \$ for car repair
- E. SO, in total, how much did her car repair cost her by using Credit Card #3? (A+B+C+D) =

\$50
\$60 ($\30×2)
\$250

\$2500
\$2,860

What would have happened to Stephanie if she decided to use Credit Card **#1** to pay for her \$2,500 car repair? Assume everything is the same, except that she used Card **#1**.

Assume that she decided on Credit Card **#1**. Here's what happens:

- For the first 2 months, Stephanie is late with her minimum payments, so she gets charged a late fee each time.
- She gets a part-time job in the evening. Each month she saves some money and puts it in the bank. She isn't late anymore with her minimum payments, but she does NOT pay down her credit card balance. Finally after 12 months, she thinks she has saved enough money. How can we calculate how much she will end up spending all together to pay for her car to get fixed using this card.

- A. Annual Fee for the new card (Card #1):
- B. LATE FEES for the two months she was late?
- C. How much does she owe in interest (approximately).
 - Hint: what is **20% of the \$2500** she borrowed?
- D. Original amount of \$ for car repair
- E. SO, in total, how much did her car repair cost her by using Credit Card #1? (A+B+C+D) =

~~\$~~
\$50 ($\25×2)
\$500

\$2500
\$3,050

Step 4: Conclusions...and next steps with credit cards

Write down short answers, **and DISCUSS if permitted**, to each of the questions below-

- What is the absolute best way to keep down your credit card costs?

PAY EACH MONTH, ON TIME!

- How can you avoid late fees that credit cards charge you?

AUTO PAY. LIMIT \$ YOU CHARGE!

- When could it be worth it to use a credit card that charges an annual fee?

- Depends -

- What is the problem with only paying off the 'monthly minimum payment' on a credit card?

You don't pay off the original amount
so you keep backing up \$ interest.

Day 1: Social Studies

ANSWERS to DAY ONE QUESTIONS

- 1. Reread the first paragraph. What is the Green Belt Movement and why did it start?**

It is Maathai's organization that she started to plant trees in order to preserve the land.

- 2. Maathai was an accomplished scholar. Why did she return home to Kenya?**

She felt called to play her role in helping to develop Kenya.

- 3. Reread the paragraph that begins, "The hunger for free seedlings." What does it mean to ensure something happens?**

To ensure something happens means to make sure it happens.

- 4. Reread the paragraph that begins, "The hunger for free seedlings." Why did Maathai think it effective to ensure the plantings led to money for the women?**

If the women earned money from the seedlings as they grew into trees and produced things like fruit, for example, they would feel ownership over the trees and a commitment to them and to the environment. In this way, Maathai was tying their livelihood to the success of the plantings.

- 5. Reread the paragraph that begins, "The hunger for free seedlings." How did this idea differ from the women's usual experience?**

They did not own the land or products they farmed. It can be inferred that men did.