Student's First & Last Name	Student ID/Lunch #	School	Grade
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Grade Level: 10th

Week of May 18th, 2020

	Day 1	Day 2	Day 3	Day 4	Day 5
ELA	This week's focus is to build upon your prior knowledge, giving you experience in reading real-world informational texts, note-taking, critical thinking, and metacognitive skills.  Evaluate the Political Cartoons And answer the questions.	Read the article "New York City Board of Health" Follow the instructions on the article.	Answer the Digging Deep Questions.	Complete the Analyzing Writer's Craft	Write a 1-2 paragraph response to the article. Utilize 1-2 of the writer's techniques in your response <b>OR</b> Choose one of the cartoons from Day 1 and explain in a paragraph how it connects to the main idea of the article.
Math (IM2)	Conditional Probability Answer "Which One Doesn't Belong?" and justify your choice. (attached) Review Concept Summary: Conditional Probability (attached), and	Complete Conditional Probability Worksheet 2 #1-7. (attached) Reference Concept Summary if needed.	Complete p. 53 #11- 16. (attached) Use the Concept Summary and examples from pages 52-53 from last week to assist.	Complete p. 53 #17- 21. (attached) Use the Concept Summary and examples from pages 52-53 from last week to assist.	Complete Conditional Probability Worksheet 3 #1-8. (attached) Reference Concept Summary if needed.

# Christina School District Assignment Board

Student's I	First & Last Na	ime	Studer	nt ID/Lunch #	School	Grade
		complete Conditional Probability Worksheet 1 #1-3. (attached)				
Science		Diversity in the Desert: Consider the following questions about living things in the desert and write down everything you think you know, everything you wonder about, and things you would like to learn more about (you may want to create 3 columns on a piece of paper): What are some of the plants and animals that are found in the desert? What is the climate like in these environments?	Diverse Scenery and Dry Heat is Luring People to Sonoran Desert (part 1): Read article. In YELLOW, highlight or underline information about the climate of the Sonoran Desert. In GREEN, highlight or underline information about the role of plants in the Sonoran Desert ecosystem. In BLUE, highlight or underline information about the animals in the Sonoran Desert ecosystem. In RED, highlight or underline information about how humans have impacted the Sonoran Desert ecosystem.	Diverse Scenery and Dry Heat is Luring People to Sonoran Desert (part 2): Reread article as necessary. Write your best answers to the following: a) Write any evidence from the article that best supports the claim: The vegetation of the Sonoran Desert is the most diverse of all the North American deserts. b) Write any evidence from the article that best supports the claim that the Sonoran Desert contains features that need protection. c) According to the article, describe how irrigation interacts with the population of the desert.	Caught on Camera: The Lesser Long-Nosed Bat (part 1): Read article. In YELLOW, highlight or underline information about how the bats interact with plants to help support the Sonoran Desert ecosystem. In GREEN, highlight or underline information about what humans are doing to help support the growth of the bat population.	Caught on Camera: The Lesser Long-Nosed Bat (part 2): Reread article as necessary. Make a claim that answers the following question: How can scientists protect the species? Support your claim with evidence from the article. Then, explain why the evidence supports your claim.
Social Studies	Civics	Complete Activity 2, Social Distancing & Learning Loss from the document titled, "Participate in a Return to School Citizen's Planning Group"	Complete Activity 2, Safety & Event Planning from the document titled, "Participate in a Return to School Citizen's Planning Group"	Complete Activity 2, Extra-Curricular Activities & Plan B Group from the document titled, "Participate in a Return to School Citizen's Planning Group"	Complete Activity 3, Social Distancing, Learning Loss, & Safety from the document titled, "Participate in a Return to School Citizen's Planning Group"	Complete Activity 3, Event Planning, Extra- Curricular Activities, & Plan B Group from the document titled, "Participate in a Return to School Citizen's Planning Group"
	Economics	Complete Questions 13 & 14 from the document titled, "Smart Phones and Budget Changes" NOTE: You have this document from	Complete Activity 1 from the document titled, "Is a Strong Dollar Better than a Weak Dollar?"	Complete Activity 2, Part 1 from the document titled, "Is a Strong Dollar Better than a Weak Dollar?"	Complete Activity 2, Part 2 from the document titled, "Is a Strong Dollar Better than a Weak Dollar?"	Complete Activity 3, Part 1 from the document titled, "Is a Strong Dollar Better than a Weak Dollar?"

# Christina School District Assignment Board

Student's First & Last	Name	Student ID/Lunch #	# School	Grade
	last week.			

**Evaluate this Cartoons:** 

Copyright by Steve Kelley.



	What does this cartoon mean?	What does it mean for Americans? Explain in detail – based on your evaluation of all parts of the cartoon:
Cartoon 1		
Cartoon 2		

- 1. Explain obesity as you understand it to mean.
- 2. Based upon your experiences at school, home, work, and on television, do you believe that obesity is a problem for Americans?

#### Instructions

**Step 1:** Number the paragraphs

Step 2: Skim the article using these symbols as you read:

(+) agree, (-) disagree, (\*) important, (!) surprising, (?) wondering

**Step 3:** Read the article now carefully and make notes in the margin. Try to mark each paragraph with an important note, idea or question.

Step 4: Answer the following.

- 1. What surprised you as you read?
- 2. What did the author think you already knew?
- 3. What challenged, changed or confirmed what you knew?

**Step 5:** Write a 1-2 sentence summary of the article.

# The New York City Board of Health approves a plan to institute a city-wide restriction on sugary drinks over 16 ounces — the latest move to improve the population's health

On Thursday, the New York City Board of Health approved Mayor Bloomberg's controversial soda ban prohibiting fast-food restaurants, convenience stores, movie theaters, and food carts from selling sugar-filled drinks in containers larger than 16 ounces. The limit, however, does not apply to grocery stores, or to fruit juices and dairy based beverages like milkshakes. While some 60 percent of New Yorkers oppose the ban, which won't take effect until March 2013, Bloomberg was pleased, tweeting that "[six] months from today, our city will be an even healthier place." But is imposing healthier restrictions really the way to go? Or does it turn New York into a nanny state?

It's a step in the right direction: Obesity kills 6,000 New Yorkers every year, more than any other health issue besides smoking, says Thomas Farley at the New York Daily News. Bloomberg's soda ban is "bold" but "completely appropriate": Sugary drinks are a key factor in the epidemic because they "deliver a load of sugar that has serious metabolic effects without making you feel full." When obesity kills, it leaves children without parents; when it doesn't, it taxes our healthcare system and leaves sufferers incapable of working. A portion cap won't fix the obesity problem, but at least it's a start.

It's over the top: "No one likes to be told what to do," says Ray Fisman at Slate. "And if the city is banning super-sized soda, some fear that it won't be long before the government will be forcing broccoli down our gullets." As an alternative, it's time to reconsider so-called sin taxes on unhealthy foods, which recent studies have shown to be effective. Even a "modest price difference between regular and diet soda" could prove helpful in convincing poor customers to switch drinks "rather than continuing to buy soda they can't afford." Just look at how effective New York City's cigarette tax has been in helping people drop the habit.

**But setting limits has a proven track record:** Bloomberg's past food and health regulations have worked, says Nadia Arumugam at Forbes. In 2005, the mayor instituted a ban of all trans-fats from all restaurants in the city limits. Just two years later, a New York City Health Department study found that the ban helped curb incidence of heart disease. A 2008 ruling requiring restaurants to post calorie counts has made similar headway: A study of Starbucks outlets in New York showed that customers bought 6 percent fewer calories once the new menus rolled out. "Setting limits, and implementing bans are not infringing on personal freedom, but helpful ways of making it easier for people to simply say 'No."

Digging Deep- answers may be in phrases

- 1. Where is this ban taking place?
- 2. Who had the idea for the ban?
- 3. What is banned?

What is not banned?

4. Choose a word/line/passage form the article and respond to it.

- 5. Explain the problem that the Soda Ban is trying to fix. Also, explain why rising obesity and an unhealthy population might, or might not, be a problem.
- 6. The opening paragraph asked is the ban "turns New York into a nanny state?" Now that you have read the article, what do you think the author means by "nanny state"?

7. Do you agree or disagree that government should be able to ban products that they think are unhealthy? Why or why not? You need at least three reasons or examples to support your answer.

### Analyzing Author's Craft

Re-read the article a final time looking specifically for writer's craft.

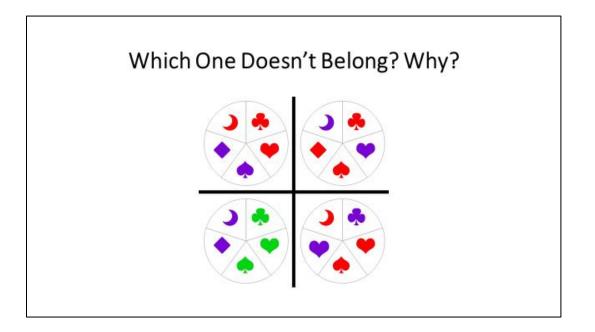
Make notes about the kinds of ideas covered in the text, the type of evidence the writer uses to support his ideas, how the piece is organized and presented, and how the writer uses language/words to add layers of meaning.

After you identify some of the techniques choose one of focus.

- Quote the example from the text.
- Identify where in the text the author uses the technique.
- How does the use of this technique support the main idea and impact the reader?
- Explain in 1- 2 paragraphs.

IM2 – Week of May 18th

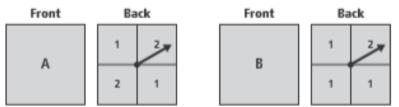
**Conditional Probability** 



ONCEPT	SUMMARY Conditional Probability	Concept Concept Concept
	Conditional Probability Formula	Conditional Probability and Independent Events
WORDS	The probability that an event <i>B</i> will occur given that another event <i>A</i> has already occurred is called a conditional probability.	Events A and B are independent events if and only if the conditional probability of A given B is the same as the probability of A, and the conditional probability of B given A is the same as the probability of B.
ALGEBRA	For any two events A and B, with $P(A) \neq 0$ , $P(B \mid A) = \frac{P(A \text{ and } B)}{P(A)}$	For any events A and B with $P(A) \neq 0$ and $P(B) \neq 0$ , A and B are independent if and only if $P(B   A) = P(B)$ and P(A   B) = P(A).

# Conditional Probability Worksheet 1

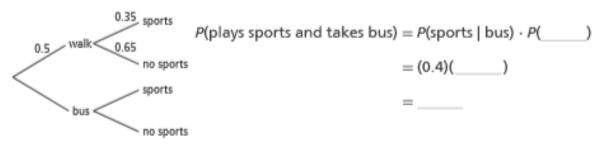
 Rhonda is competing on a game show. First she randomly decides on a target of 1 or 2 and chooses card A or B. Then she spins the spinner on the other side of the card.



- a. What is P(1) if Rhonda chooses spinner A? P(1IA) = \_\_\_\_\_
- b. What is P(1) if Rhonda chooses spinner B? P(1B) = \_\_\_\_\_
- c. Choose the correct symbol to make the statement true.

Events A and B are dependent because P(1|B) (=,  $\neq$ ) P(1|A)

 In a survey, half of the students walk to school and the other half take the bus. Of the students who take the bus to school, 40% play sports. Complete the tree diagram and the calculation to find the probability below.



- 3. Suppose 60% of the freshmen at your school take a course in compass navigation. The probability that a freshman selected at random did not get lost on the class hike is 90%. The probability that a freshman selected at random took the course and did not get lost is 50%.
  - a. What is P(did not get lost | took the course)?

$$P(\text{did not get lost} | \text{took the course}) = \frac{P(\text{took the course and did not get lost})}{P(\text{took the course})}$$
$$= \frac{0.5}{P(\text{took the course})}$$

=

b. Kei says P(took the course | did not get lost) is 1. Correct Kei's error.

# Conditional Probability Worksheet 2

1. The population of a high school is 51% male. Of those who attend a school concert, 45% are male. Are gender and concert attendance dependent or independent events? Explain.

The table shows the number of one doctor's patients who caught a cold one week and whether or not they exercised regularly.

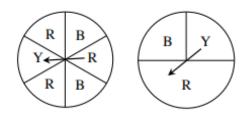
	Caught a cold	Did not catch a cold
Exercised	8	30
Did not exercise	10	2

- 2. Find P(did not exercise | did not catch a cold).
- 3. Find P(did not catch a cold | did not exercise).
- 4. Are the events "did not exercise" and "did not catch a cold" dependent or independent events? Explain.
- **5.** Based on the data in the table, do you think the doctor should recommend that his patients exercise if they want to avoid colds? Explain.
- **6.** A student says that if P(A) = P(A | B) and  $P(B) \neq 0$ , then A and B must be independent events. Is the student correct? Explain.
- 7. A softball game has an 80% chance of being cancelled if it rains and a 30% chance of being cancelled if there is fog when there is no rain. There is a 70% chance of fog with no rain and a 30% chance of rain. What is the probability that the game will be cancelled?

For each question that follows, use an area model or a tree diagram to compute the desired probability.

For problems 11-13 use the spinners at right.

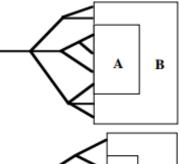
11. If each spinner is spun once, what is the probability that both spinners show blue?

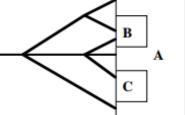


- 12. If each spinner is spun once, what is the probability that both spinners show the same color?
- 13. If each spinner is spun once, what is the probability of getting a red-blue combination?
- 14. A pencil box has three yellow pencils, one blue pencil, and two red pencils. There are also two red erasers and one blue. If you randomly choose one pencil and one eraser, what is the probability of getting the red-red combination?
- 15. Sally's mother has two bags of candy but she says that Sally can only have one piece. Bag #1 has 70% orange candies and 30% red candies. Bag #2 has 10% orange candies, 50% white candies, and 40% green candies. Sally's eyes are covered and she chooses one bag and pulls out one candy. What is the probability that she chooses an orange candy?
- 16. You roll a die and flip a coin. What is the probability of rolling a number less than 5 on the die and flipping tails on the coin?
- 17. A spinner is evenly divided into eight sections—three are red, three are white, and two are blue. If the spinner is spun twice, what is the probability of getting the same color twice?
- 18. You and your friend have just won a chance to collect a million dollars. You place the money in one room at right and then your friend has to randomly walk through the maze. In which room should you place the money so that your friend will have the best chance of finding the million dollars?
- Find the probability of randomly entering each room in the maze shown at right.

a. P(A) b. P(B) c. P(C)

20. The weather forecast shows a 60% chance of rain. If it does not rain then there is an 80% chance of going to the beach. What is the probability of going to the beach





21. A baseball player gets a hit 40% of the time if the weather is nice but only 20% of the time if it is cold or windy. The weather forecast shows a 70% chance of being nice, 20% chance of being cold, and 10% chance of being windy. What is the probability of that the baseball player will get a hit?

Parent Guide with Extra Practice

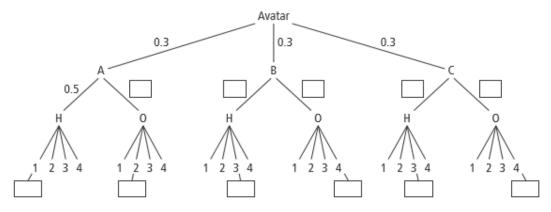
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# Conditional Probability Worksheet 3

# Complex problems involving probability are often easier to visualize and solve using tree diagrams. You can write the probabilities on the branches of the diagram.

An avatar in a computer game selects one of 3 doors, labeled **A**, **B**, and **C**. Behind each door is either a **H**int (H) or an **O**bstacle (O) that will contribute assistance or obstacles toward winning a challenge with levels **1**, **2**, **3**, and **4**. All choices are equally likely and made at random.

Complete the tree diagram with the probabilities for each branch.



Use the tree diagram to find the probabilities in Exercises 1-4.

1. P(4|A) 2. P(2|A and O) 3. P(3|not 2) 4. P(1|A and (H or O))

A parking garage attendant records the kind of vehicle and the number of persons in the vehicle. Based upon prior records, he estimates the following relative frequencies. Complete the table, and find the probabilities to the nearest tenth of a percent.

	Number of Persons in the Vehicle (including driver)				
Type of Vehicle	1	2	3	4	5 or more
Car	0.042	0.120	0.021	0.110	0.002
Truck	0.055	0.042	0.001	0.001	0.000
Van	0.006		0.012	0.160	0.192
SUV	0.040	0.065	0.052	0.041	0.030

Parking Garage Relative Frequency Data

- 5. P(car | 2 or more people)
- 6. P(SUV | fewer than 4 people)
- 7. P(3 or more people I van)
- 8. P(2 people I van or truck)



# Diverse scenery and dry heat is luring people to Sonoran Desert

By Encyclopaedia Britannica on 11.07.19 Word Count **662** Level **MAX** 



Image 1. The iconic cacti of Saguaro National Park in Arizona. The Sonoran Desert is located in the U.S. Southwest and northwestern Mexico. Photo by: Joe Parks via Wikimedia Commons

The Sonoran Desert is a hot, dry area in the Southwest region of the United States and in northwestern Mexico. It covers an area of 120,000 square miles. The desert extends through southwestern Arizona and southeastern California in the United States and covers much of the Mexican state of Baja California and the western half of the state of Sonora. The Colorado and Yuma deserts lie within the vast Sonoran Desert.

The Sonoran Desert has a subtropical climate and receives 3 to 15 inches of rain per year. Most of it falls from July to September, when strong, brief thunderstorms bring heavy rain. Lighter winter rainfall occurs in December and January. Frosts are rare. The hottest and driest part of the desert is near the lower Colorado River. There, summer temperatures can reach more than 120 degrees Fahrenheit, with rainfall of less than 3 inches.

The vegetation of the Sonoran Desert is the most diverse of all the North American deserts. The saguaro cactus is the signature plant of the desert. Other common plant types include the barrel

cactus, organ-pipe cactus, prickly pear, cholla, ocotillo, yucca, century plant, ironwood, palo verde, elephant tree, mesquite, and creosote bush. In Baja California grow the unusual boojum tree (known in Mexico as the cirio) and the giant cardon cactus. A relative of the saguaro cactus, the cardon can reach up to 60 feet in height. Thorn forest occurs in southern Baja California and Sonora. Higher elevations support trees adapted to more-temperate climates.

Among the animals that make their home in the Sonoran Desert are desert bighorn sheep, mule deer, collared peccaries (commonly known as javelinas),

mountain lions, gray foxes, and coyotes. Other typical residents include desert tortoises, Gila monsters, tarantulas, scorpions, and a variety of lizards and snakes. Rabbits and rodents are abundant, as are several species of bats. The desert's birds include roadrunners, Gila woodpeckers, Gambel's quail, and a variety of owls and hawks.

Peoples of the Hohokam culture were early inhabitants of the Sonoran Desert. Spanish explorers and missionaries visited in the 16th and 17th centuries. Missions and settlements often conflicted with the local Native American groups during the 18th century. Ranching and mining began in the 19th century. Military facilities were opened during World War II.

Irrigation has produced many fertile agricultural areas in the desert, notably the Coachella and Imperial valleys at either end of the Salton Sea. The population of the Sonoran Desert is rapidly growing. During the last decades of the 20th century, the region became a major retirement and resort spot. Arizona's largest cities (Phoenix and Tucson) are located there, and Palm Springs, California, is on its northwestern edge. Native peoples such as the Tohono O'odham (Papago), Yaqui, Pima, and several Yuman peoples hold reservations throughout the desert.

The Sonoran Desert has several areas of public land. These include Organ Pipe Cactus National Monument and Cabeza Prieta National Wildlife Refuge on the Mexican border, Saguaro National Park near Tucson, Casa Grande Ruins National Monument southeast of Phoenix, and part of the Joshua Tree National Park in California. El Pinacate y Gran Desierto de Altar, a biosphere reserve in Sonora on the U.S. border, is an area of lava fields, cinder cones, and volcanic craters.

Sonoran Desert National Monument, established in 2001, preserves 760 square miles of the desert southwest of Phoenix. Within its borders are three mountain ranges, wide valleys, and saguaro forests. The endangered Sonoran pronghorn makes its home there, as do more than 200 species of birds. Hohokam archaeological sites are scattered throughout. Juan Bautista de Anza National Historic Trail passes through the monument.







# **Caught On Camera: The lesser long-nosed bat**

By bioGraphic, adapted by Newsela staff on 10.19.17 Word Count **432** Level **MAX** 

As they follow — and mentally map — flowering agaves from Arizona to Mexico, lesser long-nosed bats also pollinate these plants. Photo by: Alexander Badyaev.

Every autumn, hundreds of thousands of lesser long-nosed bats embark on an impressive journey. They begin a 2,000-mile migration between southern Arizona and Mexico. Their migration schedule and route— known as the "nectar corridor"—are dictated by the flowering season and distribution of agave plants. These plants depend on the nectar-feeding bats for pollination.

### "Mapping" Flowering Agaves

Flowering agaves are also known as century plants due to their notoriously infrequent blooming. They are a patchy food source. So the bats typically spend several hours each evening flying high over hundreds of kilometers of Sonoran desert. They mentally "map" the distribution and status of emerging flower stalks.

Once their work surveying the stalks is done, the bats dedicate the rest of the night to feeding. Each bat makes as many as a hundred descents to the blooming agaves over the course of the night. Often, the bats hover over the flowers in pairs, as seen in the photo above. They quickly lap nectar and pollen from this rich but fleeting food source. About half of the calories consumed during these feeding visits are required simply to replenish energy burned during high-altitude mapping flights.

### Often Mistaken For Vampire Bats

The bats were once widely feared. They were often mistaken for vampire bats in the rural communities where they roost. But today, lesser long-nosed bats are attaining something of a hero-like status. That is thanks to their critical role in pollinating—and maintaining genetic diversity among—agave plants. These plants are used to make alcohol products.

Even so, according to The International Union for



Conservation of Nature (IUCN), the species still faces numerous threats. These include the disturbance of roosts, hunting and especially "loss of food sources through land clearing and human exploitation." The bats have a wide distribution throughout much of Mexico. Still, the U.S. Fish and Wildlife Service has listed the lesser long-nosed bat as endangered.

### Scientists Working To Protect The Bats

The scientist Alex Badyaev captured the photo above in Arizona's Sonoran Desert. Scientists like Badyaev are working to ensure the bats' continued survival. They are mapping the bats' migration routes and identifying the most important areas to protect. The accuracy of this work is almost as important to the scientists as it is to the bats. Quality data about the location and status of blooming agaves can mean the difference between observing a nectar-drinking bonanza and spending a lonely night in the pitch-dark desert.

# Participate in a Return to School Citizen's Planning Group

Standard	Civics 4a: Students will develop and employ the skills necessary to work with government programs and agencies
Benchmark	Civics 4b: Students will understand the process of working within a political party, a commission engaged in
	examining public policy, or a citizen's group.
Grade	10
Vocabulary	Cost Benefit Analysis

This lesson was developed by the University of Delaware's Democracy Project ~Modified and added to by CSD for use at home~

### Directions:

Schools have been closed since March due to the coronavirus and will remain so through the rest of this school year. While online and at-home teaching and learning continue, schools and districts are now thinking about safe and effective ways to transition back into schools in the fall. In fact, leaders around the country are formulating plans as you read this.

Policymakers are interested in students' ideas about what the "return to school" plans should look like, as you were the ones experiencing many of the shifts from classroom to at-home learning. There are five specific return issues that they want you to consider.

**Scenario:** Your school board announced plans to set up a youth-citizens group to begin planning for students to return to school in the fall of 2020. You and members of your class are asked to serve and contribute ideas for the return to school plan. They hope that students can come up with great ideas that they have not thought about. In this activity, your task is to create recommendations for the "return to school" plan with an opportunity to suggest some or all of them to members of your principal or school board members.

## ACTIVITY 1:

Read through the "Issues" and use the questions to guide you to come up with your ideas – Make sure each question is addressed. You should come up with at least two ideas (recommendations) for each of the 6 issues (Social distancing, Learning Loss, Safety, Event Planning, Extra-Curricular Activities, Plan B Group). The issues that you have been asked to consider appear below.

## Issues to Consider and Required Elements of this Return to School Plan

- Social Distancing experts from the field of medicine believe that the coronavirus will still be around in the fall and that social distancing will be necessary to ensure that it does not spread. Among the matters to consider are: will all grades return every day; the numbers of students who may be in classes, on busses, in the cafeteria for breakfast and lunch, in hallways before and after school as well as between classes; how to prevent crowds entering and leaving the school building at the beginning and end of a school day; a school-wide hall pass policy that limits the number of students in the hallways; staggered bell schedules etc.
  - How should a return to school plan address the issue of social distancing?
- Learning Loss Learning loss is a term used to describe the phenomenon whereby students forget what they learned due to being out of school for an extended period of time. It can also refer to content that was not covered because schools were closed. In many cases, less learning occurred during the time when schools shifted to online instruction, and when schools decided not to move forward with "new learning". Additionally, many students may not have had access to laptops or the internet while others did. As a result, those students were unable to participate in online learning sessions. Therefore, there may also be gaps in how much was learned between the "hads" (had technology) and the "had nots" (did not have technology).
  - How should a return to school plan address the issue of learning loss?
- **Safety** we should assume that the coronavirus will still be around and that we will not know definitely know who has had it, who has it, and who does not have it. In addition to social distancing, what other measures might be put in place

# 000

**EXT NO SH** This work was developed by the University of Delaware's Democracy Project. View Creative Commons Attributions at <u>https://creativecommons.org/licenses/by-nc-sa/4.0/</u> to limit chances that the virus will spread throughout the school building (e.g. require masks, testing negative, taking temperatures, handwashing, sanitizing the building and busses, borrowing of school supplies such as pencils, trading food/snacks etc.)?

- $\circ$   $\;$  How should a return to school plan address the issue of safety?
- Event Planning there are many events that take place during the school year such as dances, proms, graduations, awards nights etc. Some students are missing-out on those this year. Should they be rescheduled? You also have to think about events that will normally occur next school year.
  - How should a return to school plan address the issue of event planning?
- Extra-Curricular Activities in addition to scheduling classes, any return to school plan must include recommendations for extra-curricular activities such as sports and clubs. Some sports can pose higher risks of spreading due to close contact, perspiration etc. In addition, will fans be permitted to attend any activities that might be held?
  - How should a return to school plan address the issue of extra-curricular activities?
- Plan B Group smart citizens always have a Plan B in mind. What if schools cannot re-open? Based on what you are experiencing during school closure this semester, what recommendations do you have if schools remain closed in the fall? Focus on the following issues:
  - test everyone at the beginning of the year to determine what they know or skip the testing and begin teaching on day 1?
  - o continue online learning or use packets of lessons sent to students?
  - let teaching proceed as if it is a normal school year or pick-up with the content where schools left off when schools closed back in March?
  - o grade work or pass-fail?

# ACTIVITY 2:

Before you decide on which final recommendations to make, do a cost-benefit analyses for each idea. What will the costs of each recommendation be, and what will the benefits be? Use the results of your cost-benefit analyses to decide what to recommend and how to support each recommendation. This can be completed in the charts on pages 2, 3, & 4. COST / BENEFIT ANALYSIS

**Cost** = what you give up when you decide to do something

## **Benefit** = something that satisfies your wants

From: https://en.wikipedia.org/wiki/Cost%E2%80%93benefit\_analysis

Cost-benefit analysis (CBA), sometimes also called benefit-cost analysis or benefit costs analysis, is a systematic approach to estimating the strengths and weaknesses of alternatives used to determine options which provide the best approach to achieving benefits while preserving savings (for example, in transactions, activities, and functional business requirements).[1] A CBA may be used to compare completed or potential courses of actions, or to estimate (or evaluate) the value against the cost of a decision, project, or policy. It is commonly used in commercial transactions, business or policy decisions (particularly public policy), and project investments.

CBA has two main applications:[2]

- 1. To determine if an investment (or decision) is sound, ascertaining if and by how much its benefits outweigh its costs.
- 2. To provide a basis for comparing investments (or decisions), comparing the total expected cost of each option with its total expected benefits.

The following is a generic cost-benefit analysis that you might find helpful to determine your best ideas / recommendations:

- 1. Define the goals and objectives of the action.
- 2. List alternative actions
- 3. List stakeholders
- 4. Select measurement(s) and measure all cost and benefit elements.
- 5. Predict outcomes of costs and benefits over the relevant time period.

### ISSUE: SOCIAL DISTANCING

Idea / Recommendation #1: \_\_

Cost of the Recommendation	Benefit of the Recommendation



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#### Idea / Recommendation #2:

Cost of the Recommendation	Benefit of the Recommendation

#### **ISSUE:** Learning Loss

Idea / Recommendation #1.

Cost of the Recommendation	Benefit of the Recommendation

#### Idea / Recommendation #2:

Cost of the Recommendation	Benefit of the Recommendation

### **ISSUE:** Safety

Idea / Recommendation #1:

Cost of the Recommendation	Benefit of the Recommendation

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#### Idea / Recommendation #2.

Cost of the Recommendation	Benefit of the Recommendation

### **ISSUE:** Event Planning

Idea / Recommendation #1:

Cost of the Recommendation	Benefit of the Recommendation

#### Idea / Recommendation #2:

Cost of the Recommendation	Benefit of the Recommendation

### **ISSUE: Extra-Curricular Activities**

Idea / Recommendation #1:

Cost of the Recommendation	Benefit of the Recommendation
	Denent of the Recommendation

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#### Idea / Recommendation #2:

Cost of the Recommendation	Benefit of the Recommendation

#### **ISSUE:** Plan B Group

Idea / Recommendation #1:

Cost of the Recommendation	Benefit of the Recommendation

#### Idea / Recommendation #2: \_

Cost of the Recommendation	Benefit of the Recommendation

### ACTIVITY 3:

What are your final recommendations? Fill out the recommendation sheet (page 6). Make sure to describe, stipulate and be precise in your recommendations. Use the cost benefit analysis to support your recommendations.

# **RECOMMENDATIONS FOR RETURN TO SCHOOL PLANNING**

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Benchmark Standard	Economics 4a: Students will analyze and interpret the influence of the distribution of the world's resources, political stability, national efforts to encourage or discourage trade and the flow of investment on patterns of international trade.
Grade	10
Vocabulary / Key Concepts	Domestic: Inside a particular country Exchange rate: the price of one country's currency in terms of another country's currency Foreign exchange market: A market in which one country's currency can be used to purchase another country's currency

Is a Strong Dollar Better than a Weak Dollar?

This is a Page One Economics Lesson – Modified by CSD for use at home http://research.stlouisfed.org/pageone-economics/

**Directions**: Read the article and answer the questions that follow the article.

Scott A. Wolla, Senior Economic Education Specialist

"Our exchange rate is just a price—the price of the dollar in terms of other currencies. It is not controlled by anyone. And a high price for the dollar, which is what we mean by a strong dollar, is not always desirable." —Christina Romer1

All words have connotations; they suggest certain meanings. For example, "strong" and "weak" are usually considered opposites, so one might think that it's always better to be strong than to be weak. However, in referring to the value of a country's currency, it's not that easy. "Strong" is not always better, and "weak" is not always worse. The terms "stronger" and "weaker" are used to compare the value of a specific currency (such as the U.S. dollar) relative to another currency (such as the euro). A currency appreciates in value, or strengthens, when it can buy more foreign currency than previously. You can likely think of several advantages of being able to buy more foreign currency, but just because a country's currency is stronger does not mean that everyone in that country is better off. A currency depreciates in value, or weakens, when it can buy less of a foreign currency than previously. Similarly, just because a country's currency has weakened does not mean that everyone in the country is worse off (see the boxed insert). As the figure shows, the U.S. dollar has been appreciating lately relative to other currencies.

#### Supply and Demand in the Foreign Exchange Market

When a German carmaker sells cars to American consumers, the consumers pay for the cars in U.S. dollars, but the German carmaker cares about how much it receives in euros, the official currency of the euro zone, which includes Germany. The German carmaker must use euros to pay its suppliers, employees, and shareholders. When an American buys a German car, the American pays in dollars, which the German carmaker uses to buy euros in the foreign exchange market (or FX market).

The FX market functions like other markets—there is a supply, a demand, and a market price. The supply consists of the currency being sold in the market, and demand is created as buyers purchase the currency in the market. And, as in other markets, as the forces of supply and demand shift, the price of currency in the FX market changes. In this case, the price is the exchange rate, which is the price of one country's currency in terms of another country's currency. When consumers and firms demand more U.S. dollars than previously, the increased demand for U.S. dollars will increase (or strengthen) its value in terms of euros. The increase in the supply of the euros that consumers and firms bring to the market will decrease (or weaken) its value relative to the U.S. dollar.

#### **Comparing Currencies**

The words "relative to" are used several times throughout this essay to show the comparative relationship between two currencies. For example, assume one unit of currency A buys one unit of currency B. Then, one month later, one unit of currency A buys two units of currency B. In this case, currency A has appreciated, or strengthened, relative to currency B. On the other side of this



transaction, while one unit of currency B used to buy one unit of currency A, it now takes two units of B to buy one unit of A—currency B has depreciated relative to currency A. So, there are two sides of the same transaction: If currency A is appreciating relative to currency B, then currency B is depreciating relative to currency A.

#### Who Benefits and Who Is Hurt by Changing Currency Values?

Imagine you want to buy a German car here in the United States. The German carmaker must calculate the price to charge, based on its cost of production plus a markup. The carmaker pays these costs in euros (Germany's currency) and so cares about the price of the car in euros. Let's say that cost is 17,000 euros. American consumers, of course, care only about the price they pay in U.S. dollars, so the carmaker must set the price in U.S. dollars. Given a dollar-to-euro exchange rate of 0.7, the dollar price of the car would be \$24,285.



NOTE: Appreciation of the U.S. dollar relative to other major currencies.

SOURCE: FRED<sup>®</sup>, Federal Reserve Economic Data, Federal Reserve Bank of St. Louis: Trade Weighted U.S. Dollar Index: Major Currencies [DTWEXM]; Board of Governors of the Federal Reserve System; https://research.stlouisfed.org/fred2/series/DTWEXM/; accessed January 29, 2015.

strengthens and the dollar-toeuro exchange rate increases to 0.8. (That is, instead of "buying" 0.7 euros with a dollar, you can now buy 0.8 euros with the same dollar.) At this point, the carmaker has a couple of options: It can keep the car's dollar price at \$24,285, which would bring in 19,428 euros (up from 17,000), allowing the firm to earn higher profits. Or the German carmaker could hold the euro price at 17,000 euros and lower the price in U.S. dollars, which would decrease from \$24,285 to \$21,250, allowing the German carmaker to compete for U.S. customers at a lower dollar price without lowering its euro price. Or, it can make a little more money on each car

Now imagine the dollar

while reducing the price to increase market share. In short, if the U.S. dollar strengthens relative to the euro, the German carmaker can either (i) keep the dollar price the same and earn a higher profit in euros or (ii) sell its cars at a lower dollar price, thereby gaining more U.S. customers. A price cut benefits the German carmaker and U.S. consumers, but it is bad for U.S. automakers that must compete with these lower prices.

It's important to realize that as the U.S. dollar strengthens relative to the euro, the euro weakens relative to the U.S. dollar. As a result, goods and services produced in the United States become relatively more expensive for foreign buyers, which hurts U.S. (domestic) producers that export goods. In short, a stronger U.S. dollar means that Americans can buy foreign goods more cheaply than before, but foreigners will find U.S. goods more expensive than before. This scenario will tend to increase imports, reduce exports, and make it more difficult for U.S. firms to compete on price.

So, who benefits and who is hurt by a weak dollar? A weaker U.S. dollar buys less foreign currency than it did previously. This makes goods and services (and assets) produced in foreign countries relatively more expensive for U.S. consumers, which means that U.S. producers that compete with imports will likely sell more goods (such as American cars) to U.S.



consumers. A weaker dollar also makes U.S. goods and services (and assets) relatively less expensive for foreign buyers, which benefits U.S. producers that export goods. In short, a weaker dollar means that Americans will find foreign goods to be relatively more expensive than before, but foreign consumers will find U.S. goods less expensive than before. This scenario will tend to increase exports, reduce imports, and make goods and services produced by U.S. firms more attractive to American consumers.

Conclusion The implications of words such as "strong" and "weak" can mislead people to believe that an appreciating currency is always better for the economy than a depreciating currency, but this is not the case. In fact, there is no simple connection between the strength of a country's currency and the strength of its economy. However, the value of the dollar relative to other currencies does affect individuals differently. Other things equal, a stronger dollar makes U.S. goods relatively more expensive for foreigners, which benefits U.S. consumers of foreign goods (imports) and hurts American exporters and American firms that might not export but do compete with imports. In addition, a weaker dollar makes foreign goods (imports) relatively more expensive for American consumers, which benefits exporters of U.S. goods and American firms that compete with imports.

ACTIVITY 1: After reading the article, answer the following questions.

- 1. What does it mean for a currency to appreciate, or become stronger?
- 2. What does it mean for a currency to depreciate, or weaken?
- 3. For each of the following scenarios, imagine that the U.S. dollar has become either stronger or weaker since an earlier period. For each category (stronger dollar & weaker dollar), identify how each, a stronger and a weaker dollar affects (i) U.S. producers that sell to foreign consumers (exporters), (ii) U.S. producers that compete with imports, and (iii) American consumers of foreign goods (imports).
- 4. Markets have a supply, a demand, and an equilibrium price. Identify each of these for the foreign exchange market.

#### **ACTIVITY 2:** For Further Discussion

**Part 1**: For each of the following scenarios, determine whether you would prefer for the dollar to appreciate or depreciate relative to the euro.

- 1. You are planning a trip to Italy.
- 2. You are a U.S. businessperson whose chief competitor is a French firm.
- 3. Your job depends on European tourists visiting the United States.
- 4. Your factory relies on parts imported from Germany.

**Part 2:** Assume the U. S. dollar has strengthened relative to the euro. Identify whether the underlined person benefits or is hurt as a result of the change.

- 1. A <u>French tourist</u> plans to visit New York City.
- 2. An American tourist plans to visit Paris.
- 3. An <u>American car producer</u> competes with German cars.
- 4. A German car producer competes with American cars.
- 5. A German firm is investing in U.S. produced machinery.
- 6. An <u>American firm</u> is investing in German-made machinery.





SOURCE: FRED<sup>®</sup>, Federal Reserve Economic Data, Federal Reserve Bank of St. Louis: Canada/U.S. Foreign Exchange Rate [AEXCAUS]; Board of Governors of the Federal Reserve System; https://research.stlouisfed.org/fred2/series/AEXCAUS/; accessed March 3, 2015.

#### ACTIVITY 3:

The figure shows the exchange value of one U.S. dollar relative to Canadian dollars. For example, the most recent data on the graph show that at the end of 2014, one U.S. dollar could be used to purchase 1.1 Canadian dollars. For each of the following periods, indicate whether the U.S. dollar appreciated or depreciated relative to the Canadian dollar.

- From 1977 to 1986 the U.S dollar \_\_\_\_\_\_\_ relative to the Canadian dollar.
  From 1987 to 1991 the U.S dollar \_\_\_\_\_\_\_ relative to the Canadian dollar.
  From 1992 to 2002 the U.S dollar \_\_\_\_\_\_ relative to the Canadian dollar.
  From 2003 to 2008 the U.S dollar \_\_\_\_\_\_ relative to the Canadian dollar.
  In 2009 the U.S dollar \_\_\_\_\_\_ relative to the Canadian dollar.
  From 2010 to 2011 the U.S dollar \_\_\_\_\_\_ relative to the Canadian dollar.
- 7. From 2012 to 2014 the U.S dollar \_\_\_\_\_\_ relative to the Canadian dollar.

