

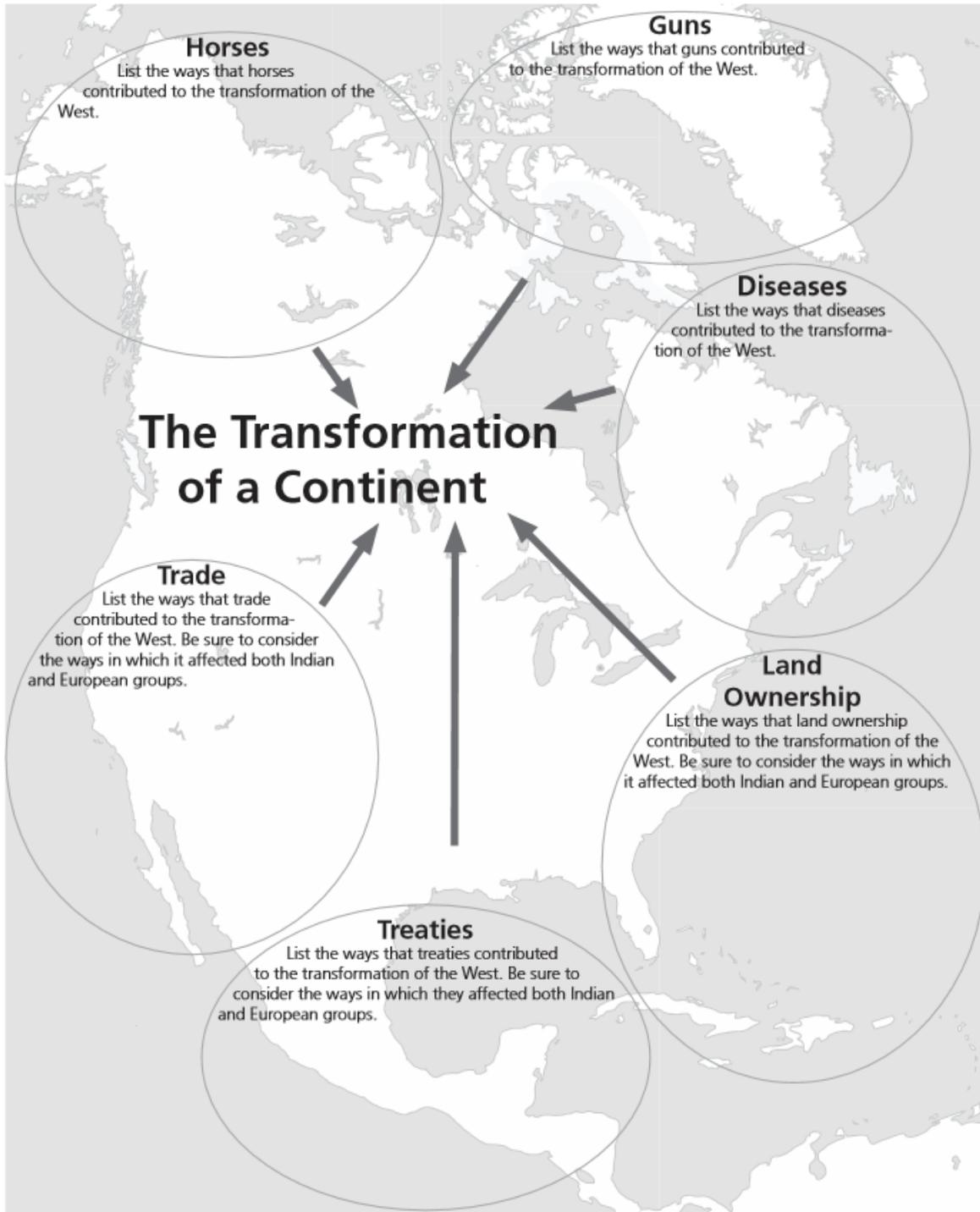


Social Studies - 8

Recently in eighth grade students began learning about early US History. In these at home learning opportunities you will focus on the founding of our US government. Some information may be review and some may be new. Feel free to use any resources you have (such as the internet or books) to explore the topics more each week. Each week will connect to the last as much as possible.

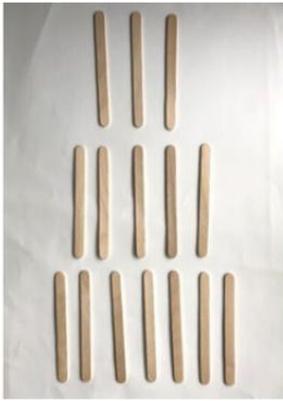
Outcome: Assess the impact of Westward Expansion.

In class prior to the school closure you were finishing up learning about Westward Expansion. Think about what you learned in that unit to help fill in the different sections below. You can even share your thinking with people in your house. May some of them can help you if you get stuck?



8th Grade Math Resources

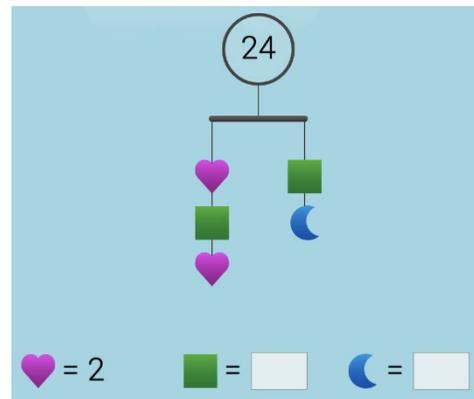
1) NIM: 2-Person Strategy Game



- Equipment required: 15 objects (rocks, toothpicks, sticks, coins, strips of paper, markers, etc.)
- Set up 3 rows of objects as shown in the picture (rows of 3, 5, 7)
- Players take turns removing objects from any of the rows.
- On your turn, take as many objects as you like from a row, but only from that row.
- The losing person is the one forced to take the last object.

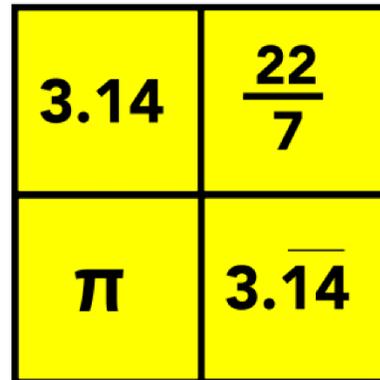
Play many times and try to discover a winning strategy.

2) Hanger (Source: <https://solveme.edc.org/Mobiles.html>) What is the value of the square? The crescent?

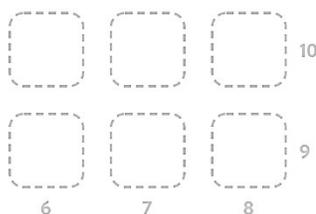


3) Which One Doesn't Belong? (Source: wodb.ca)

Choose a number in this picture that you don't think belongs with the rest. Explain why. Can you pick another number and give a different reason?



4) Is It Possible? (Source: brilliant.org)



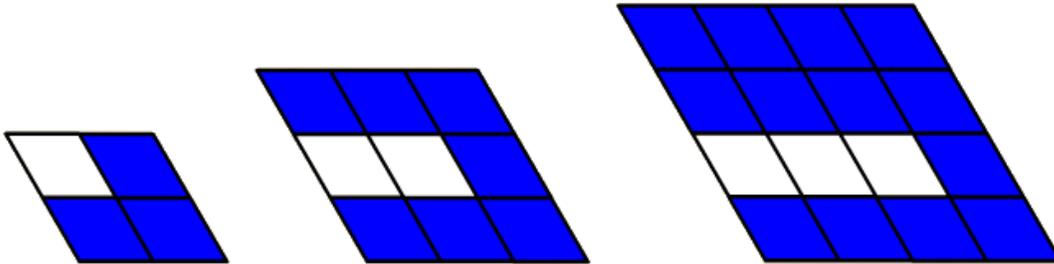
To solve the problem, put in the number tiles so that every row and column adds up to the target sum beside it.

Is it possible? Show your explanation

5) **Visual Pattern** (Source: visualpatterns.org)

Below is a pattern of squares in stages 1-3 below.

- Draw what you think stage 4 might look like.
- Draw or describe what you think stage 10 might look like.
- Label how many **shaded** parallelograms are in each stage.
- Challenge: Try to write an equation to describe the relationship between the stage number n and the number of shaded parallelograms P . (Hint: think about if all the parallelograms were shaded first)



6) **System of Equations** (Source: <https://openupresources.org/math-curriculum/>)

Solve the system of equations:

A:
$$\begin{cases} y = 7x + 10 \\ y = -4x - 23 \end{cases}$$

B:
$$\begin{cases} y = -3x + 13 \\ y = -2x + 1 \end{cases}$$

7) **Create a System** (Source: <https://openmiddle.com>)

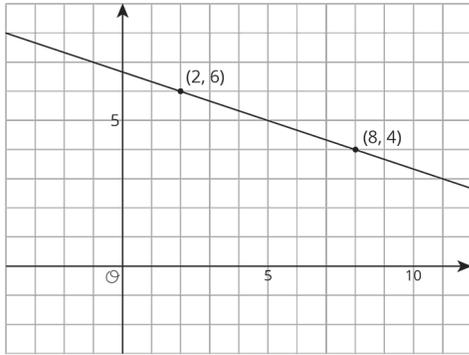
Using the digits 1 to 30, at most one time each, fill in the boxes to create a system of two linear equations that **has a solution of (3,2)**.

$$\begin{cases} \square x + \square y = \square \\ \square x + \square y = \square \end{cases}$$

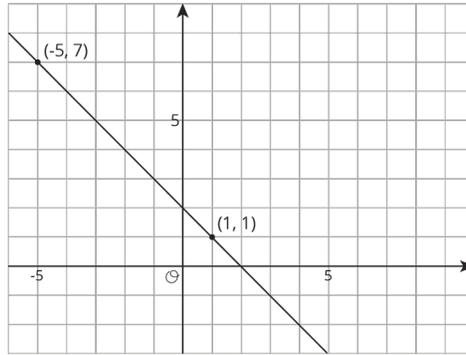
*Find as many possibilities as you can!

8) **Slope** – Calculate the slope of each line.

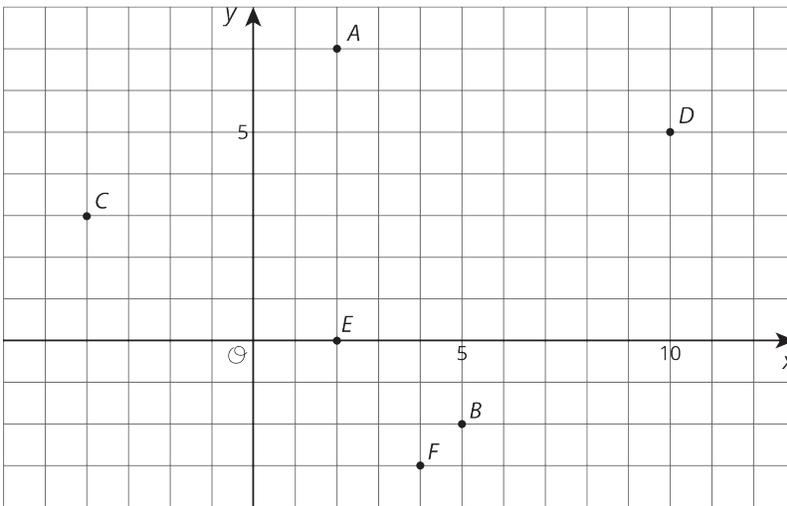
A



B



9) **Slope** Draw a line with the given slope through the given point. What other point lies on that line?



a. Point A, slope = -3

b. Point A, slope = $-\frac{1}{4}$

c. Point C, slope = $-\frac{1}{2}$

d. Point E, slope = $-\frac{2}{3}$

10) **Would You Rather** (Source: <https://www.wouldyourathermath.com/>)

Whichever option you choose, justify your reasoning with mathematics.

HAVE A POOL THAT IS



40 ft x 9 ft x 4 ft

OR



7 yds x 4 yds x 2 yds

h/t @mccarthymathie

For Math Answers – Flip to the Science page

Science Answer Key

Alexa's: The mother's egg and the father's sperm each contain half the number of mouse chromosomes which hold the genes. A gene is a segment of the DNA molecule that carries instructions for a particular trait, such as fur color. The baby mouse contains a full set of chromosomes—with half the genes coming from the mother and half from the father.



SCIENCE-8

Wonder of Mice Color

June's pet mouse had babies.



Five of the babies were black and two were white. The father mouse was black. The mother mouse was white. June and her friends wondered why the mice were different colors. These were their ideas:

Jerome: Baby mice inherit more traits from their fathers than their mothers.

Alexa: The baby mice got half their traits from their father and half from their mother.

Seif: Male traits are stronger than female traits.

June: Black mice have more traits than white mice.

Fiona: The black baby mice are probably male and the white baby mice are probably female.

Lydia: Parent's traits like fur color don't matter—nature decides what something will look like.

Billy: Blood type determines what traits babies will have.

Which friend do you most agree with and **why**? Explain your thinking.

Share this situation with your family. Listen for how their thinking is like or different than yours. Check the math page for which possibility is most like currently supported science.

I most agree with _____ because...

Answer- see math page. Math Answer Key: **2.** Square=8, Crescent=4; **3.** Could argue any of the options!; **4.** Not possible (tiles add up to 21, and the two rows only add up to 19); **5.** A: 21, B: 111, C: $P=(n+1)^2-n$; **6.** A: (-3, 2) B: (12, -23); **7.** Many possible solutions, ex: $3x+5y=19$, $4x+1y=14$; **8.** A: -2/6 or -1/3, B: -6/6 or -1; **9.** a. point B, b. point D, c. point E, d. point E; **10.** Pool on the right is bigger (left = 1440 cubic feet, right = 56 cubic yards = 1512 cubic feet)



Phone Number Workout

The Rules:

1. Write down your phone number
2. Go through your phone number one digit at a time and do the exercise or stretch associated with that number
3. Try friends phone number

1. Forward Lunges

1



2. Stair or Chair Squats

2



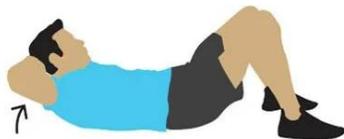
3



10 reps

3. Star Jumps

4



4. Sit Ups

5



5. Wall squats

6



6. Chair squats



15 reps

7. Mountain climbers

7

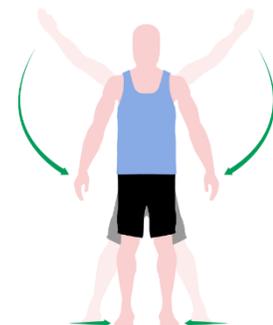


8. Alternate Elbow to knee

8



9



9. Jumping Jacks

0. Plank

0



20 reps

Starting with Spanish

See how much Spanish you already know!

Match each question with the best answer.

- | | |
|-----------------------------|--------------------------|
| 1. _____ ¡Hola! | A. Caring |
| 2. _____ Furiosa/Furioso | B. Nervous |
| 3. _____ Cariñosa/ Cariñoso | C. Is |
| 4. _____ Es | D. Person |
| 5. _____ Inteligente | E. Hello! |
| 6. _____ Atlético/Atlética | F. Athletic |
| 7. _____ Nerviosa/Nerioso | G. Furious (super angry) |
| 8. _____ Persona | H. Intelligent |

Silly Stories for Spanish Beginners

Layla, la chica inteligente

Not all middle schools offer Spanish. If you are new to Spanish or just want to try it out, see how much of this story you can understand! *Hint: amable = nice*

To view this comic as a cartoon with audio, visit: <http://tiny.cc/SpanWk3Layla>



<p>Esta es Layla.</p> <p>Layla es una chica.</p>	<p>Layla dice,</p> <p>Layla es amable.</p>	<p>Layla es inteligente. Layla tiene ideas excelentes</p>	<p>La clase favorita de Layla es matemáticas.</p>
<p>Un día en la clase de matemáticas,</p>	<p>la profesora de Layla tiene una sorpresa.</p>	<p>La profesora tiene 1 elefante extra.</p>	<p>El elefante es el animal favorito de Layla.</p>
<p>Layla tiene idea fenomenal.</p>	<p>Layla habla con Mamá.</p>	<p>Ahora, Layla está feliz. <i>ahora= now feliz = happy</i></p>	<p>Layla tiene 1 elefante en casa.</p>

Students Developing Spanish Skills

Read the current news article from *El mundo en tus manos*.

Médicos cubanos van a Italia

22 de marzo: Actualmente muchos médicos y **enfermeros**¹ cubanos viven y trabajan en otros **países**². En el 2019, había 28000 enfermeras y médicos cubanos que trabajaban en más de 60 países diferentes. Normalmente estos profesionistas atienden pacientes en varios países de América Latina,

pero, en marzo, un grupo de 52 médicos y enfermeras **viajaron**³ a Lombardía, Italia.

Ahora, están trabajando en varios hospitales italianos para combatir el coronavirus. Es **la primera vez**⁴ que Italia **les pide**⁵ ayuda a médicos cubanos.

Los países europeos no

solamente le pidieron ayuda médica a Cuba, sino también a otros países latinoamericanos. Un grupo de médicos venezolanos viajó a España para ayudar en varios hospitales. Uno de los médicos mencionó que **el apoyo**⁶ de la comunidad médica de América Latina ha sido muy importante durante la pandemia.

enfermeros¹ nurses países² countries viajaron³ traveled primera vez⁴ first time le pide ayuda⁵ asks for help el apoyo⁶ the support

Circle the best answer.

1. Typically (**A FEW** / **MANY**) Cuban medical professionals work in more than 60 Latin American countries.
2. This March a group of 52 medical professionals traveled to (**ITALY** / **AUSTRIA** / **LATIN AMERICA**).
3. Now they are (**VISITING** / **WORKING AT** / **REPAIRING**) Italian hospitals.
4. Italy and (**LOMBARDIA** / **SPAIN**) asked Latin American countries to help fight the virus in hospitals.
5. The help from Latin American countries has been called (**ANNOYING** / **ESSENTIAL** / **IMPORTANT**).

Heritage and Native Speakers of Spanish

Leer las noticias de última hora desde *El mundo en tus manos*.

El primer gel antibacterial

En 1966, Guadalupe «Lupe» Hernández vivía en Bakersfield, California. La **joven** latina estudiaba **enfermería**. Ella trabajaba con médicos que **atendían** trabajadores de las industrias minera y agrícola. Cuando los médicos y las enfermeras iban a las minas y a las **huertas** a atender a sus pacientes, ellos no podían lavarse las manos. No tenían acceso a agua y **jabón**. Por eso, no podían desinfectarse las manos antes de entrar en contacto con sus pacientes.

Hernández quería ayudar a los médicos y a los trabajadores. Ella sabía que el alcohol etílico **podía matar** gérmenes como bacterias y virus. Por eso, ella mezcló alcohol con otros dos ingredientes: agua astringente y glicerina. La combinación de esos ingredientes creó un gel antibacterial.

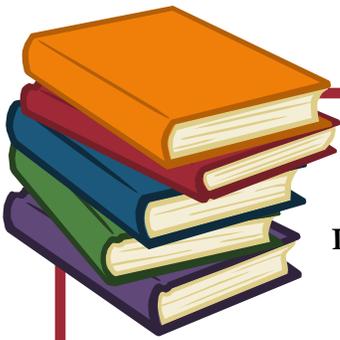
¡Hernández había inventado un producto especial! Gracias a ese gel, los médicos podían «lavarse las manos». Es decir, el gel podía desinfectar las manos de los doctores sin necesidad de

agua y jabón.

Hernández sabía que su invento era muy importante y quería patentarlo. Un día, ella vio un anuncio en la televisión. El anuncio decía que había una compañía que podía ayudar a las personas a patentar sus inventos. Hernández contactó a la compañía y ellos le ayudaron a patentar su producto. Fue así como Hernández patentó el primer gel antibacterial de la historia.

joven young person enfermería nursing atendían attended to/treated huertas orchards jabón soap podían matar could kill

Escribir su reacción abajo.



ENGLISH/LANGUAGE ARTS: GRADE 8

Pre-Reading Question: 'Bracelet of Silence'

Would you consider wearing privacy armor to prevent smart devices from eavesdropping on you? How worried are you about technology listening to your conversations? Have you ever had an experience that made you think your phone, computer or smart home device was eavesdropping on you?

Close Reading: As you read the article below, use the following annotations to understand how the author's point of view is developed. When you finish reading, answer the questions.

<u>Underline</u>	Supporting details that support the <i>Central Idea</i>
○ Circle	Unfamiliar terms or phrases – and look them up 😊
?	Confusing information

🔍 Notice how many experts are quoted throughout the article. As you read, take note of who these experts are, their position, and the kinds of evidence they present.

Activate This 'Bracelet of Silence' and Alexa Can't Evesdrop

Microphones and cameras lurk everywhere. You may want to slip on some privacy armor.

By Kashmir Hill, Feb. 14, 2020

Last year, Ben Zhao decided to buy an Alexa-enabled Echo speaker for his Chicago home. Mr. Zhao just wanted a digital assistant to play music, but his wife, Heather Zheng, was not enthused. "She freaked out," he said.

Ms. Zheng characterized her reaction differently. First she objected to having the device in their house, she said. Then, when Mr. Zhao put the Echo in a work space they shared, she made her position perfectly clear: "I said, 'I don't want that in the office. Please unplug it. I know the microphone is constantly on.'"

Mr. Zhao and Ms. Zheng are computer science professors at the University of Chicago, and they decided to channel their disagreement into something productive. With the help of an assistant professor, Pedro Lopes, they designed a piece of digital armor: a "bracelet of silence" that will jam the Echo or any other microphones in the vicinity from listening in on the wearer's conversations.



The bracelet is like an anti-smartwatch, both in its cyberpunk aesthetic and in its purpose of defeating technology. A large, somewhat ungainly white cuff with spiky transducers, the bracelet has 24 speakers that emit ultrasonic signals when the wearer turns it on. The sound is imperceptible to most ears, with the possible exception of young people and dogs, but nearby microphones will detect the high-frequency sound instead of other noises.

“It’s so easy to record these days,” Mr. Lopes said. “This is a useful defense. When you have something private to say, you can activate it in real time. When they play back the recording, the sound is going to be gone.” During a phone interview, Mr. Lopes turned on the bracelet, resulting in static-like white noise for the listener on the other end.

Why is Ms. Zheng nervous about the device her husband has purchased? Is this a justified fear?



Polite Surveillance Society

As American homes are steadily outfitted with recording equipment, the surveillance state has taken on an air of domesticity. Google and Amazon have sold millions of Nest and Ring security cameras, while an estimated one in five American adults now owns a smart speaker. Knocking on someone’s door or chatting in someone’s kitchen now involves the distinct possibility of being recorded.

It all presents new questions of etiquette about whether and how to warn guests that their faces and words could end up on a tech company’s servers, or even in the hands of strangers. By design, smart speakers have microphones that are always on, listening for so-called wake words like “Alexa,” “Hey, Siri,” or “O.K., Google.” Only after hearing that cue are they supposed to start recording. But contractors hired by device makers to review recordings for quality reasons report hearing clips that were most likely captured unintentionally, including drug deals.

Two Northeastern University researchers, David Choffnes and Daniel Dubois, recently played 120 hours of television for an audience of smart speakers to see what activates the devices. They found that the machines woke up dozens of times and started recording after hearing phrases similar to their wake words. “People fear that these devices are constantly listening and recording you. They’re not,” Mr. Choffnes said. “But they do wake up and record you at times when they shouldn’t.”

Rick Osterloh, Google’s head of hardware, recently said homeowners should disclose the presence of smart speakers to their guests. “I would, and do, when someone enters into my home, and it’s probably something that the products themselves should try to indicate,” he told the BBC last year.

Welcome mats might one day be swapped out for warning mats. Or perhaps the tech companies will engineer their products to introduce themselves when they hear a new voice or see a new face. Of course, that could also lead to uncomfortable situations, like having the Alexa in your bedside Echo Dot suddenly introduce herself to your one-night stand.

Underline evidence that the author presents in this section that supports Ms. Zheng’s position?

Is this valid evidence to support her argument?



‘No Longer Shunned as Loonies’

The “bracelet of silence” is not the first device invented by researchers to stuff up digital assistants’ ears. In 2018, two designers created Project Alias, an appendage that can be placed over a smart speaker to deafen it. But Ms. Zheng argues that a jammer should be portable to protect people as they move through different environments, given that you don’t always know where a microphone is lurking.

At this point, the bracelet is just a prototype. The researchers say that they could manufacture it for as little as \$20, and that a handful of investors have asked them about commercializing it.

“With the Internet of Things, the battle is lost,” Mr. Zhao said, referring to a lack of control over data captured by smart devices, whether it gets into the hands of tech companies or hackers.

“The future is to have all these devices around you, but you will have to assume they are potentially compromised,” he added. “Your circle of trust will have to be much smaller, sometimes down to your actual body.”

Other precursors to the bracelet include a “jammer coat” designed by an Austrian architecture firm in 2014 to block radio waves that could collect information from a person’s phone or credit cards. In 2012, the artist Adam Harvey created silver-plated stealth wear garments that masked people’s heat signature to protect them from the eyes of drones, as well as a line of makeup and hairstyles, called CV Dazzle, to thwart facial recognition cameras. In 2016, Scott Urban, an eyewear maker in Chicago, developed a line of reflective frames that turned back visible and infrared light. When a surveillance camera films a person wearing the \$164 frames, the reflected light blurs out the face. Mr. Urban called them Reflectacles.



Glasses developed by Scott Urban reflect infrared light from security cameras to blur out the wearer’s face. Credit... Reflectacles

He is now working full time on privacy protection eyewear, including a new version with lenses that absorb infrared light to deter iris-scanning and facial recognition cameras. His customers include privacy enthusiasts, political activists and card counters whose faces have been placed on casinos’ watch lists.

“People into their privacy are no longer shunned as loonies,” Mr. Urban said. “It’s become a concern for people of all ages, political perspectives and walks of life.”

He added: “New technologies are continually eroding our privacy and anonymity. People are looking for an opt-out, which is what I’m trying to provide.”

Woodrow Hartzog, a law and computer science professor at Northeastern University, doesn’t think privacy armor is the solution to our modern woes. “It creates an arms race, and consumers will lose in that race,” he said. “Any of these things is a half-measure or a stopgap. There will always be a way around it.”

Rather than building individual defenses, Mr. Hartzog believes, we need policymakers to pass laws that more effectively guard our privacy and give us control over our data. “Until then, we’re playing cat and mouse,” he said. “And that always ends poorly for the mouse.”

Questions: Answer the following questions on your own sheet of paper or notebook.

1. Construct an objective summary of the text, clearly identifying the central idea.
2. How is the central idea of the text developed over the course of the article?
3. How does the evidence from experts interact to support the central idea? What would the effect be if one or more of their testimonies was removed?

Extension:

Research other privacy technologies that exist, including those listed in the article like Reflectacles or CV Dazzle. How plausible do they seem to solving our cyber security dilemma?

Or

Design your own product that fights against some of the cyber security issues outlined in the article. Draw a prototype and prepare to pitch your idea to investors. What is your claim? How will you support this with evidence that your device can perform as promised?