

The Argosy Workbook

Real articles by student journalists, turned into worksheets for elementary and middle school readers. Free to print and share.

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A Note Before You Begin

Every article in this workbook was written by a student. Not a professional pretending to be one, and not a textbook voice: a teenager who picked a question, chased it down, and put their name on the answer.

That is why this program matters to me. The question I keep coming back to, in my own writing and in the citizen-science project I started, is why people show up for something. Why does a volunteer log a jellyfish sighting? Why does a reader come back to a paper written by students in five time zones? The answer I keep finding is simple: people show up when someone takes them seriously first. *The Argosy's* founders did that for me. When I became Editor-in-Chief, I wanted to pass it further down.

These worksheets are how we do that. They don't ask you to agree with us. Many of them ask what you think, and a good argument counts either way. Read the short version first, then the real article when you're ready. Underline what you doubt. Write your report as if it might be published, because someday it might be.

To the teachers and parents bringing us into the room: thank you. To the students: welcome aboard.

— **Ethan Yang**, Editor-in-Chief

Fix It or Toss It? The Right to Repair



Built from *The Most Important Environmental Movement You've Never Heard Of: The Right to Repair* by Ethan Yang,
Editor-in-Chief

Grades 4–8 · About 45 minutes · ★ everyone · ★★ older readers

Name _____

Date _____

1. Before You Read

★ Think of something you own that broke. What happened to it? Was it fixed, or thrown away?

★ Who do you think should be allowed to fix your phone or tablet: only the company that made it, or anyone you choose? Why?

2. The Short Version

Read this first. Older readers: read the full article too.

When a phone battery dies or a laptop screen cracks, most people buy a new one. Fixing it is often too expensive, and small repair shops often can't get the parts, tools, or instructions from the company that made it.

The **Right to Repair** is a movement that wants to change that. Its idea is simple: if you buy something, you should be allowed to fix it yourself or take it to any repair shop you choose. Supporters want laws that make companies sell parts, tools, and repair manuals at a fair price.

This matters for the planet. The world throws away more than 50 million tons of electronics every year. Old gadgets contain harmful materials like lead and mercury, and valuable ones like gold and copper. When things last longer, there is less trash and less mining.

Companies say only their own workers should do repairs, to keep customers safe and protect their designs. Critics say the real reason is money: a phone that is hard to fix is more likely to be replaced.

Farmers, hospital technicians, and lawmakers in Europe and several U.S. states are now pushing for repair rights.

3. Word Bank

Word	What it means
repair	to fix something that is broken
e-waste	thrown-away electronics, like old phones and computers
manufacturer	the company that makes a product
hazardous	dangerous, especially to health
planned obsolescence	making a product so it wears out or becomes hard to fix, so people buy a new one

★ Use **e-waste** in a sentence of your own.

4. Check Your Understanding

★ 1. What is the Right to Repair? Answer in one sentence.

★ 2. Why can't some small repair shops fix a broken phone?

★ 3. About how much electronic waste does the world throw away each year?

☐ 5 thousand tons ☐ 500 thousand tons ☐ more than 50 million tons

★ 4. Name one harmful material and one valuable material found inside old electronics.

★★ 5. Companies give reasons for keeping repairs to themselves. Critics give a different reason. Write one reason from each side.

5. Ethan's Ledger

Ethan weighs every big idea with three questions: *What do we win? What does it cost? And what's the catch?* Fill in the ledger for the *Right to Repair*.

	Your answer
The win: What good things happen if people can fix their own stuff?	
The cost: Who might lose something, or what could go wrong?	
The catch: What makes this harder than it sounds?	

6. Think Deeper

★ Ethan writes that a truly "smart" device is one that is "designed to last." Do you agree? What makes something smart?

★★ Farmers want to fix their own tractors. Hospitals want to fix their own machines. Why might repair rights matter even more for a farmer or a hospital than for a kid with a tablet?

7. Write Your Report

- **My answer:**
- **Reason 1 (from the article):**
- **Reason 2 (from the article):**
- **One thing the other side would say:**
- **My conclusion:**

For Teachers and Parents: Answer Key

Word bank sentence: Answers vary; check that the student uses e-waste to mean thrown-away electronics.

1. The idea that if you buy a product, you should be allowed to fix it yourself or take it to any repair shop you choose.
2. They often can't get the parts, tools, or repair information from the company that made it.
3. More than 50 million tons.
4. Harmful: lead, mercury, or flame retardants. Valuable: gold, silver, copper, or rare earth elements.
5. Companies: safety, data security, or protecting their designs. Critics: profit, because hard-to-fix products get replaced and repairs can be expensive.

Ledger (sample answers): Win: less e-waste, less mining, lower costs, people keep things longer. Cost: companies may earn less from repairs and new sales; a bad repair could be unsafe. Catch: companies must agree to share parts and manuals, which usually takes new laws.

Think deeper: Open answers. Strong answers connect "smart" to lasting, being fixable, and creating less waste. For farmers and hospitals, a broken machine can stop a harvest or delay patient care, so waiting for an official repair costs much more.

Report: Look for a clear answer, two reasons taken from the article, a fair statement of the other side, and a conclusion that matches the answer.

Is Recycling Enough? Beyond the Blue Bin



Built from *Beyond the Blue Bin: Deconstructing the Myth of a Truly Circular Economy* by Ethan Yang, Editor-in-Chief

Grades 4–8 · About 45 minutes · ★ everyone · ★★ older readers

Name _____

Date _____

1. Before You Read

★ What do you put in the recycling bin at home or at school? Where do you think it goes after it is picked up?

★ Think of something you own that has lasted a long time. Why do you think it lasted?

2. The Short Version

Read this first. Older readers: read the full article too.

Many people think that sorting plastic, paper, and glass into the blue bin takes care of the trash problem. Ethan says it is not that simple.

Most things we use follow a straight line he calls "take-make-waste." We dig up raw materials, make products that don't last long, and throw them away. Recycling usually doesn't turn a plastic bottle back into a new bottle. Instead, it becomes a lower-quality material, like carpet or cloth, which gets thrown away later. This is called **downcycling**. It slows the trip to the landfill, but doesn't stop it.

In a **circular economy**, materials would be used again and again, in a loop. To get there, Ethan says we have to start when a product is first designed. Things should be built to last, easy to repair, and easy to take apart, with standard screws instead of glue, so their parts can be used again.

Some companies already do this. Patagonia repairs outdoor gear and sells used items through its Worn Wear program. Fairphone makes phones where you can replace the battery, camera, and screen yourself.

But Ethan says companies can't do it alone. He wants laws that make companies responsible for their products from start to finish, better places to sort and rebuild materials, and shoppers who care more about quality than newness. Keep recycling, he says. The real goal is a world where we barely need a blue bin at all.

3. Word Bank

Word	What it means
landfill	a place where trash is buried in the ground
downcycling	recycling something into a material of lower quality than it was before
disassembly	taking something apart into its pieces
longevity	lasting a long time
refurbish	to clean and fix up something used so it can be sold or used again

★ Use **downcycling** in a sentence of your own.

4. Check Your Understanding

★ 1. What is the "take-make-waste" model? Answer in one sentence.

★ 2. According to the article, what usually happens to a recycled plastic bottle?

○ It becomes a brand-new bottle, just as good as before ○ It becomes a lower-quality material, like carpet or cloth ○ It disappears completely

★ 3. Name two ways a product can be designed so it fits a circular economy.

★ 4. Name one company from the article and what it does to keep its products in use.

★★ 5. Ethan says a circular economy "cannot be left to individual companies." Name two other things he says are needed, and explain how one of them would help.

5. Ethan's Ledger

Ethan weighs every big idea with three questions: *What do we win? What does it cost? And what's the catch?* Fill in the ledger for a circular economy.

	Your answer
The win: What good things happen if products are made to last, be repaired, and be reused?	
The cost: Who might have to pay or give something up?	
The catch: What makes this harder than it sounds?	

6. Think Deeper

★ Ethan ends by saying the future is about "designing a world where we barely need one at all." He means a recycling bin. What would a world like that look like? How would it be different from today?

★★ Pick something you own, like a backpack, a pair of sneakers, or a tablet. Using ideas from the article, describe how you would redesign it so it lasts longer and its parts could be used again.

7. Write Your Report

Write a short report answering this question: **Is recycling enough to solve our trash problem?**

- **My answer:**
- **Reason 1 (from the article):**
- **Reason 2 (from the article):**
- **One thing the other side would say:**
- **My conclusion:**

For Teachers and Parents: Answer Key

Word bank sentence: Answers vary; check that the student uses downcycling to mean recycling something into a lower-quality material.

1. It is the way our economy works now: we take raw materials, make them into products that don't last long, and then throw them away.
2. It becomes a lower-quality material, like carpet or cloth.
3. Any two: built to last instead of wearing out quickly; easy to repair, with parts and instructions people can get; easy to take apart, using standard screws instead of glue; made of materials that can safely go back to nature or be reused over and over.
4. Patagonia: its Worn Wear program repairs gear and sells used items. Fairphone: it makes phones where users can easily replace the battery, camera, and screen.
5. Any two: "producer responsibility" laws that make companies pay for what happens to their products for their whole life; investment in better sorting and remanufacturing facilities; a change in how people shop, valuing quality and long-lasting things over new things. Sample explanation: if companies have to pay for their products after they are thrown away, they will want to design them to last and be easy to recycle.

Ledger (sample answers): Win: less trash in landfills, fewer new raw materials taken, things last longer, and companies can earn customer loyalty and new money from repair and refurbishing. Cost: companies may have to pay for their products' whole life; building new sorting and remanufacturing facilities costs money; shoppers give up always getting something new. Catch: no single company can do it alone; it needs new laws, new facilities, and people changing their habits, and recycling itself is limited because materials wear down, get mixed with dirt or other stuff, and cost a lot to process.

Think deeper: Open answers. Strong answers describe products that last, get repaired, and get taken apart and reused, so very little ends up as trash. For the redesign, look for at least two ideas from the article: longer-lasting materials, parts that can be replaced, screws instead of glue, or materials that can be reused.

Report: Look for a clear answer, two reasons taken from the article, a fair statement of the other side, and a conclusion that matches the answer.

Too Hot to Play? Sports in a Warming World



Built from *The Heat Game: The World Cup's Other Opponent* by Ethan Yang, Editor-in-Chief

Grades 4–8 · About 45 minutes · ★ everyone · ★★ older readers

Name _____

Date _____

1. Before You Read

★ Have you ever played or watched a game outside on a really hot day? How did you feel?

★ What do you think athletes can do to stay safe when it is very hot?

2. The Short Version

Read this first. Older readers: read the full article too.

The World Cup is the most-watched event on Earth. At this summer's tournament, Ethan says, the toughest opponent wasn't a team. It was the heat. Many games kicked off at 3 p.m. in July, in the hot middle of America. Players needed cooling breaks, and coaches planned when their players would drink water as carefully as they planned their plays.

Summer was always hot, Ethan writes, but three things changed. First, dangerous **heat waves** used to be bad luck. Now they are expected. Second, money: TV pays for the sport, and TV wants the biggest games on at a good hour for viewers in Europe. That puts players on the field when the sun is strongest. Third, star players are only the top of a pyramid. Below them are youth teams, high school leagues, and weekend players who play in the same heat without ice vests, medical staff, or stadiums with roofs.

Sports are already changing to fit a warmer world. The men's World Cup before this one was moved to November and December because of heat. Marathons now start at dawn, and sports like tennis and cricket have new heat rules. This kind of change is called **adaptation**.

Ethan's big question is about the bottom of the pyramid. Will we just admire the changes made for the stars, or will we use them to protect kids and everyday players too?

3. Word Bank

Word	What it means
heat wave	a stretch of days that are much hotter than normal
hydration	drinking enough water so your body keeps working well
broadcast	a show or game sent out on TV or online for people to watch
reschedule	to move something to a different time or date
adaptation	changing how you do things to fit new conditions

★ Use **hydration** in a sentence of your own.

4. Check Your Understanding

★ 1. What does Ethan say was the World Cup's toughest opponent? Answer in one sentence.

★ 2. Why are many of the biggest matches played in the afternoon?

☐ Players play better when it is hot ☐ So the games are on TV at a good hour for viewers in Europe ☐ The stadiums have no lights

★ 3. Name two ways sports have already changed because of heat.

★ 4. Top players have help staying safe in the heat. Name two things they have that many kids' teams and weekend players do not.

★★ 5. Ethan describes sports as a pyramid. Who is at the top, who is at the bottom, and why does he worry most about the bottom?

5. Ethan's Ledger

Ethan weighs every big idea with three questions: *What do we win? What does it cost? And what's the catch?* In this article he fills in a ledger of his own, for afternoon kickoffs. Find his answers and write them in your own words.

	Your answer
The win: What good thing comes from playing big games in the afternoon?	
The cost: Who pays the price, and how?	
The catch: What makes this trade unfair?	

6. Think Deeper

★ Ethan calls sport "one of the most sensitive climate instruments we have." An instrument, like a thermometer, measures something. What does he mean? How can a game tell us something about the weather?

★★ Ethan says the changes made for star players are a message for "every school league and street game." Imagine you are in charge of a summer sports day at your school. What would you change to keep everyone safe? Use at least two ideas from the article.

7. Write Your Report

Write a short report answering this question: **Should the biggest games be played at cooler times of day, even if that is a less convenient hour for TV viewers?**

- My answer:
- Reason 1 (from the article):
- Reason 2 (from the article):
- One thing the other side would say:
- My conclusion:

For Teachers and Parents: Answer Key

Word bank sentence: Answers vary; check that the student uses hydration to mean drinking enough water.

1. The heat: afternoon kickoffs in July, during a heat wave, were harder to beat than any team.
2. So the games are on TV at a good hour for viewers in Europe.
3. Any two: the men's World Cup before this one was moved to November and December; marathons now start at dawn; some race calendars have moved to different seasons; cricket, tennis, and American football have new heat rules; the Winter Olympics has fewer places that can host it and relies on machine-made snow.
4. Any two: ice vests, medical staff, stadiums with roofs.
5. Top: star athletes, like World Cup players. Bottom: youth tournaments, high school leagues, and weekend players. He worries about the bottom because they play in the same heat without ice vests, medical staff, or roofed stadiums, and nobody publishes how fast the new heat rules are reaching them.

Ledger (from the article): Win: about a billion viewers get to watch at a comfortable hour. Cost: the players are on the field when the sun is strongest, pushed to the edge of what their bodies can handle in heat. Catch: only one side does the sweating; the viewers get the benefit while the players take the heat.

Think deeper: Open answers. Strong answers explain that sport has hard limits on how much heat a body can handle and huge audiences, so changes like cooling breaks and new start times show the climate is changing before many other places notice. For the sports day, look for ideas from the article such as moving games to cooler times like early morning, adding cooling breaks, planning when players drink water, and having adults ready to help, like the medical staff top players have.

Report: Look for a clear answer, two reasons taken from the article, a fair statement of the other side, and a conclusion that matches the answer.

Why Do Olympic Moments Make Us Cry?



Built from *Why We Cry at the Olympics* by Gawon Ryu, Psychology Editor

Grades 4–8 · About 45 minutes · ★ everyone · ★★ older readers

Name _____

Date _____

1. Before You Read

★ Have you ever felt very happy or very sad while watching a game, race, or show, even though you weren't in it? What happened?

★ When a team you like wins, do you say "we won" or "they won"? Why do you think you say it that way?

2. The Short Version

Read this first. Older readers: read the full article too.

During the Olympics, lots of people find themselves crying over sports they almost never watch, for athletes they have never met. Psychology editor Gawon Ryu wanted to know why. She found three layers.

The first layer is feeling that a win belongs to us. Psychologists call this **basking in reflected glory**. When a group we belong to wins, our mood and confidence go up, even though we did nothing. That is why fans say "we won." At the Olympics, the group is a whole country, so the feeling gets even bigger.

But people also cry for athletes from other countries. The second layer is the story. Before an event, TV shows a short video about the athlete's injuries, struggles, family, and years of 5 a.m. practices. Then we watch all that work come down to one two-minute race. Researchers call the warm, teary feeling this brings "kama muta." It also happens at weddings and reunions. Sometimes a fall moves us even more than a win, because it shows that working hard does not promise a happy ending.

The third layer is togetherness. Hundreds of millions of people watch the same moment at the same time. The name for that feeling of being part of one huge group is **collective effervescence**.

The Olympics is also a big business that sells these feelings. Gawon knows that. But she decides the tears are still honest, because what they respond to is real.

3. Word Bank

Word	What it means
identify	to feel that you belong to a group, so what happens to the group feels like it happens to you
montage	a short video made of many quick clips, used to tell a story fast
narrative	a story, with a beginning, a middle, and an end
devotion	caring about something so much that you give it lots of time and effort
dignity	acting with calm and self-respect, even when things go wrong

★ Use **devotion** in a sentence of your own.

4. Check Your Understanding

★ 1. Why do sports fans say "we won" even when they did not play? Answer in one sentence.

★ 2. What do researchers call the warm, teary feeling we get when we see deep connection or devotion?

○ reflected glory ○ kama muta ○ collective effervescence

★ 3. Before an athlete competes, TV often shows a short video about them. Name two things that video might show.

★ 4. Besides the Olympics, name two events the article says can bring on the same warm, teary feeling.

★★ 5. Gawon admits the Olympics is a business that sells feelings. Why does she still decide the tears are not fake? Use the article in your answer.

5. Gawon's Mind Map

Gawon takes a big moment, like millions of people crying at the Olympics, and breaks it into its psychological parts. She also writes down what the evidence shows, even when it surprises her. Map the three big ideas from the article, then connect each one to your own life.

Idea from the article	What it means, in your own words	A time I felt it
Basking in reflected glory		
Kama muta		
Collective effervescence		

★ One thing in the article that surprised me:

6. Think Deeper

★ Gawon writes about an athlete who falls but still waves to the crowd. She calls this "dignity without the prize." What do you think she means? Have you ever seen someone show it?

★★ The article says the TV videos about athletes are made on purpose to make viewers feel something. Gawon still says the tears are real. If you know a feeling was planned by someone else, is it still a true feeling? Explain.

7. Write Your Report

Write a short report answering this question: **Are the tears people cry at the Olympics real feelings?**

- **My answer:**
- **Reason 1 (from the article):**
- **Reason 2 (from the article):**
- **One thing the other side would say:**
- **My conclusion:**

For Teachers and Parents: Answer Key

Word bank sentence: Answers vary; check that the student uses devotion to mean caring about something enough to give it lots of time and effort.

1. They identify with the team, so its win feels partly like their own (psychologists call this basking in reflected glory).
2. Kama muta.
3. Any two: an injury, money (funding) struggles, a parent in the stands, years of 5 a.m. practices.
4. Any two: reunions, weddings, acts of sacrifice.
5. Gawon says that knowing how a feeling is made tells us very little about whether the feeling is true. The things underneath the tears are real: people showing devotion, high stakes, strangers we briefly get to know, and the whole world watching together.

Mind map (sample answers): Basking in reflected glory: feeling proud and happy when your group wins, as if you won too (e.g., your school team wins a game). Kama muta: a warm, teary feeling when you see people deeply connected or giving everything they have (e.g., a family reunion or a wedding). Collective effervescence: the electric feeling of being part of one huge group sharing a moment (e.g., a whole crowd cheering at once). Surprise: answers vary; possible answers include that falls can move people more than wins, that hormone levels can change after a team you support wins, or that knowing a feeling was planned does not make it fake.

Think deeper: Open answers. For the ★ question, strong answers explain that the athlete stays proud and kind even after losing what they worked for. For the ★★ question, strong answers take a side and use the article: Gawon argues that the way a feeling is produced does not decide whether it is true; a student who disagrees might say planned feelings can be used to sell things.

Report: Look for a clear answer, two reasons taken from the article, a fair statement of the other side (for example, that the Olympics is a business that sells these feelings), and a conclusion that matches the answer.

What Is That First-Day Feeling?



Built from *Back-to-School Anxiety Isn't What You Think* by Gawon Ryu, Psychology Editor

Grades 4–8 · About 45 minutes · ★ everyone · ★★ older readers

Name _____

Date _____

1. Before You Read

★ What is one thing you look forward to at the start of a new school year? What is one thing that feels new or different?

★ Think about a place you know really well, like your kitchen or your classroom. How do you know where everything is, and where you belong in it?

2. The Short Version

Read this first. Older readers: read the full article too.

Every August, many students feel a low hum of worry before school starts. Most people say they are nervous about the schoolwork. Psychology editor Gawon Ryu thinks that answer is mostly wrong.

Her clue is timing. The feeling is strongest before the first day, and it drops within a week or two of school starting. But schoolwork keeps growing all fall, so the feeling can't mainly be about work.

Gawon says what runs out each summer is your **map** of school. By June, you knew where you sat, who you sat with, and what each teacher meant. In September, you get a blank map and an old question: "Where do I fit here?" For a very long time, humans needed their group to survive, so the brain treats not knowing where you fit like a danger. The feeling does not mean something is broken. It is your mind asking for directions. Once you find your table, the map comes back.

That is why a neat binder doesn't help much. What helps is **anchor-building**: making one or two things certain ahead of time. You could talk to one classmate before the first day, walk through a new building once, get back to regular bedtimes and mealtimes, or plan something fun for the first weekend.

Gawon also sees good news. A new school year is a fresh start, a chance to try a new role or choose a new table.

3. Word Bank

Word	What it means
uncertainty	not knowing for sure what will happen or how things will turn out
anticipation	thinking about something ahead of time, while you wait for it to arrive
anchor	something steady you can count on; a ship's anchor keeps it from drifting away
cartography	the work of making maps
landmark	something that marks a place or a moment, like a tall tower you can steer by, or a special day like New Year's

★ Use **anchor** in a sentence of your own.

4. Check Your Understanding

★ 1. According to Gawon, when is the back-to-school feeling the strongest?

☐ before the first day ☐ during the first week ☐ right before big tests

★ 2. Why does Gawon think the feeling is NOT mainly about schoolwork? Answer in one sentence.

★ 3. Gawon says that by June, you have a "map" of your school. Name two things that are on that map.

★ 4. The article gives several ways to build anchors before school starts. Name two.

★★ 5. Gawon says a very organized binder "barely touches the dread," but small social steps help a lot. Why does she think that? Use the article in your answer.

5. Gawon's Mind Map

Gawon takes a big feeling, like the worry many people notice every August, and breaks it into its psychological parts. She also checks her idea against the evidence, like when the feeling starts and when it fades. Map the three big ideas from the article. In the last column, you can use an example from the article, or one from your own life if you want.

Idea from the article	What it means, in your own words	An example
The expired map		
Anchor-building		
A fresh start		

★ One thing in the article that surprised me:

6. Think Deeper

★ Gawon describes the back-to-school feeling as "a mind requesting coordinates." (Coordinates are directions that show exactly where something is on a map.) What do you think she means? If you want, add one idea that could help someone find their

coordinates in a new place.

★★ Gawon says a new school year is one of the last fresh starts that everyone gets, and that most adults stop getting blank maps. She thinks the nervous feeling and the chance to change are really the same signal. Do you agree that a feeling can be both nervous and exciting at once? Explain, using the article.

7. Write Your Report

Write a short report answering this question: **Is the back-to-school feeling mostly about schoolwork?**

- **My answer:**
- **Reason 1 (from the article):**
- **Reason 2 (from the article):**
- **One thing the other side would say:**
- **My conclusion:**

For Teachers and Parents: Answer Key

Note: the personal-reflection prompts on this sheet are optional. Students should not be asked to share their own worries in writing.

Word bank sentence: Answers vary; check that the student uses anchor to mean something steady you can count on (or the object that holds a ship in place).

1. Before the first day.
2. The feeling drops within a week or two of school starting, while the schoolwork keeps growing, so if it were about work it would get bigger, not smaller.
3. Any two: where you sat, who you sat with, what each teacher meant or expected, what your role was in each room, who you were at that school.
4. Any two: reaching out to one classmate before the first day, walking through a new building once, getting back to regular sleep and mealtimes in the last week of summer, planning something ordinary and good for the first weekend.
5. Gawon thinks the feeling comes from an expired social map, not from fear of the work. A binder prepares you for schoolwork, so it doesn't fix the real problem. Social anchors, like one familiar face on the first morning, make part of the new map certain before school begins.

Mind map (sample answers): The expired map: over the summer, your sense of where you fit at school runs out, and in September you have to work out where you belong again (e.g., not yet knowing where to sit at lunch). Anchor-building: making one or two things certain before school starts (e.g., planning to meet one friend at the door). A fresh start: a new school year is a chance to change your role or choose a new table, and people use special dates like new years and new semesters to make changes (e.g., deciding to join a new club). Surprise: answers vary; possible answers include that the feeling fades even though the work gets harder, that the brain treats not knowing where you fit like a danger, or that a single familiar face can make the first morning easier.

Think deeper: Open answers. For the ★ question, strong answers explain that the mind wants to know where it stands and where it fits, like someone looking for their spot on a map; helpful ideas can come from the article (one familiar classmate, walking the building). For the ★★ question, strong answers take a side and use the article: Gawon says the worry and the possibility are the same signal read at different volumes, because a blank map also means roles can change; a student who disagrees might say nervous and excited feelings are different and should be handled differently.

Report: Look for a clear answer, two reasons taken from the article (for example, the timing of the feeling and the idea of an expired map), a fair statement of the other side (for example, that people usually describe it as being nervous about schoolwork), and a conclusion that matches the answer.

Is Your Feed a Window or a Mirror?



Built from *Your Feed is Lying to You: The Psychology of the Social Media Echo Chamber* by Gawon Ryu, Psychology Editor

Grades 4–8 · About 45 minutes · ★ everyone · ★★ older readers

Name _____

Date _____

1. Before You Read

★ Have you ever watched one video about something, then noticed the app showing you lots more videos just like it? What happened?

★ Have you ever been surprised to find out that someone disagreed with something you thought everybody agreed on? How did it feel?

2. The Short Version

Read this first. Older readers: read the full article too.

People hoped social media would be like a big town square, where people from different places could share ideas and talk things over. Psychology editor Gawon Ryu says many feeds have become **echo chambers** instead: places where you mostly hear your own ideas repeated back to you.

Why? Social media companies earn money by showing ads, so they want you to stay on their apps as long as possible. Their computer programs, called algorithms, learn what keeps you scrolling. Strong feelings, especially anger, keep people watching, so feeds often fill up with emotional posts that pick sides.

This works on two habits that every brain has. The first is **confirmation bias**: we like to find and remember information that agrees with what we already believe. The algorithm learns what you believe and shows you more of it. The second is group polarization. When people who already agree only talk with each other, their views often grow more extreme. Over time, people on the other side can start to seem impossible to understand.

An echo chamber can also trick you into thinking almost everyone agrees with you. Then, when you meet someone who doesn't, it can feel shocking.

Gawon's advice is to look for different points of view and to question what your feed shows you. A feed, she says, is not a window onto the world. It is more like a mirror.

3. Word Bank

Word	What it means
engagement	how much people watch, click, like, and comment on something
algorithm	a set of step-by-step instructions a computer follows; on an app, it decides what to show you next
consensus	when almost everyone in a group agrees
perspective	a way of seeing something; a point of view
skepticism	not believing something right away, and checking it first

★ Use **skepticism** in a sentence of your own.

4. Check Your Understanding

★ 1. According to the article, what is the main goal of social media companies?

☐ to show you what is true ☐ to keep you on the app as long as possible so they can show you more ads ☐ to help you meet people who disagree with you

★ 2. Which kind of emotions does the article say keep people the most engaged? Name one.

★ 3. What is confirmation bias? Answer in one sentence.

★ 4. What does Gawon mean by the "illusion of consensus"?

★★ 5. Explain how the algorithm, confirmation bias, and group polarization work together to build an echo chamber. Use the article in your answer.

5. Gawon's Mind Map

Gawon takes a big problem, like people online drifting further and further apart, and breaks it into its psychological parts. She starts with what the companies want, then names the habits of the mind their apps use. Map the three big ideas from the article, then connect each one to something you have seen.

Idea from the article	What it means, in your own words	A time I saw it
Confirmation bias		
Group polarization		
Illusion of consensus		

★ One thing in the article that surprised me:

6. Think Deeper

★ Gawon writes that our feeds are "not a window onto the world" but "a mirror." What do you think she means? What is one thing a person could do to make what they see online more like a window?

★★ The article says algorithms are built to show us what keeps us scrolling, not what is true or important. Gawon says breaking free takes "a conscious and difficult effort" by each of us. Should fixing echo chambers be up to each person, or should the apps be built differently? Explain, using the article.

7. Write Your Report

Write a short report answering this question: **Do social media feeds show us what the world really thinks?**

- **My answer:**
- **Reason 1 (from the article):**
- **Reason 2 (from the article):**
- **One thing the other side would say:**
- **My conclusion:**

For Teachers and Parents: Answer Key

Word bank sentence: Answers vary; check that the student uses skepticism to mean not believing something right away and checking it first.

1. To keep you on the app as long as possible so they can show you more ads.
2. Negative emotions, especially anger or outrage.
3. Confirmation bias is the habit of looking for, understanding, and remembering information in a way that agrees with what we already believe.
4. When everything in your feed agrees with you, you start to believe that almost everyone thinks the way you do, even though they don't.
5. The algorithm learns what you like and believe and keeps showing you content that agrees with it, which feeds your confirmation bias. Because you are always surrounded by people and posts that agree with you, it is like being in a nonstop discussion with like-minded people, and group polarization pushes your views further to the extreme. In the end, people who disagree can seem impossible to understand.

Mind map (sample answers): Confirmation bias: paying more attention to information that agrees with what you already think (e.g., only reading reviews that agree with your opinion of a movie). Group polarization: when people who agree only talk to each other, their opinions get stronger and more extreme (e.g., a group of fans who grow more and more sure their team is the best). Illusion of consensus: believing almost everyone agrees with you because everything you see agrees with you (e.g., being shocked that a classmate likes a show you thought everyone disliked). Surprise: answers vary; possible answers include that apps are built mainly to keep people watching rather than to inform them, that anger keeps people engaged, or that the feed learns what makes you angry.

Think deeper: Open answers. For the ★ question, strong answers explain that a mirror shows you yourself, so a feed mostly shows you your own beliefs instead of the whole world; ideas from the article include looking for different perspectives, following people you disagree with, and being skeptical of what the feed shows. For the ★★ question, strong answers take a side and use the article: the article says the business model is built to keep people scrolling, which could support changing the apps, but it also says each person must make a conscious effort to seek out other views.

Report: Look for a clear answer, two reasons taken from the article (for example, that algorithms show what keeps us scrolling, or that echo chambers create an illusion of consensus), a fair statement of the other side (for example, that a person can choose to follow people with different views), and a conclusion that matches the answer.

Can a Garage Become a Power Plant?



Built from *The Battery in Your Basement: How Ordinary Homes Became Power Plants* by David Lee, Sustainability Editor

Grades 4–8 · About 45 minutes · ★ everyone · ★★ older readers

Name _____

Date _____

1. Before You Read

★ When you hear the words "power plant," what do you picture? Describe it or draw it.

★ What time of day do you think your family uses the most electricity? Why?

2. The Short Version

Read this first. Older readers: read the full article too.

When people hear "power plant," they picture a giant building with smokestacks. But the power plant of the future might be a white box on a garage wall: a **home battery**.

Here is the tricky rule of the electric grid: the power being made must match the power being used at every moment. The hardest time is early evening. People come home, turn on the air conditioning and start cooking, just as solar power fades with the daylight. To catch that rush, grid operators have usually turned on "peaker" plants. These are expensive, usually gas-burning plants that sit unused most of the year. Everyone helps pay for them on their monthly bill.

One home battery stores cheap solar power from the afternoon and keeps the lights on during a power outage. But when software links thousands of them together, they can all send power back to the grid at once. This is called a **virtual power plant**. Families who join usually get paid.

This helps the climate. Peaker plants are among the dirtiest and most expensive sources of power, so every one that stays off saves both money and pollution.

There is fine print. Families who can afford solar panels and a battery mostly own their homes and have extra money, so renters and lower-income families could be left out. People also have to trust a company to make decisions about the battery in their garage.

3. Word Bank

Word	What it means
grid	the big network of power plants and wires that brings electricity to homes
demand	how much of something people want or use at one time
peaker plant	a power plant that sits unused most of the time and turns on only when people use the most power
virtual power plant	many small batteries linked by software so they work together like one big power plant
emissions	pollution that goes into the air, like smoke from burning gas

★ Use **grid** in a sentence of your own.

4. Check Your Understanding

★ 1. What is the "strange rule" at the heart of the electric grid? Answer in one sentence.

★ 2. According to the article, when are the hardest hours of the day for the grid?

☐ early morning ☐ noon ☐ early evening ☐ midnight

★ 3. Name two things one home battery can do for a family on its own.

★ 4. How can a home battery turn into "a tiny business" for a family?

★★ 5. The author says the name "virtual power plant" is "only half right." Which part of the name is right, and which part is not? Explain.

5. David's Audit

David has one rule for every new technology: audit it. He asks three questions: Who builds it? Who pays for it? And who gets left off it? Fill in the audit for home batteries linked into a virtual power plant.

	Your answer
Who builds it? Who owns the batteries, and what links them together?	
Who pays for it? Who pays for the batteries, and who gets paid?	
Who gets left off it? Which families might miss out, and what happens to them?	

6. Think Deeper

★ David writes that the grid is becoming "less like a broadcast and more like a conversation." What does he mean? Think about which way electricity used to flow, and which way it can flow now.

★★ A virtual power plant means a company makes decisions about equipment in your family's garage. What rules would make a family feel safe joining? What might make them quit?

7. Write Your Report

Write a short report answering this question: **Should power companies pay families to share their home batteries with the grid?**

- **My answer:**
- **Reason 1 (from the article):**
- **Reason 2 (from the article):**
- **One thing the other side would say:**
- **My conclusion:**

For Teachers and Parents: Answer Key

Word bank sentence: Answers vary; check that the student uses grid to mean the network that delivers electricity.

1. The amount of electricity being made (supply) has to match the amount being used (demand) at every instant.
2. Early evening.
3. It stores cheap solar power from the afternoon, and it keeps the lights on during a power outage.
4. Families who join a virtual power plant usually get paid for letting their battery send power to the grid, so the battery stops being only a cost and starts earning money.
5. The "power" part is right, because the electricity is real. The "virtual" part describes the plant: there is no single big building. The plant is the coordination, with many small batteries in many places working together like one machine.

Audit (sample answers): Who builds it: homeowners who install solar panels and batteries, plus the software that links thousands of batteries together and the utility that sends the signal. Who pays: homeowners pay for the panels and batteries; households that join usually get paid; everyone already pays for peaker plants on their monthly bill. Who gets left off: renters and lower-income families, who may not afford batteries and could be left buying peak-priced power. The article mentions fixes some programs are trying: leasing, batteries built into apartment buildings, and utility-owned batteries placed in ordinary homes.

Think deeper: Open answers. For the first question, strong answers explain that electricity used to flow one way, from the giant plant down to homes, but now homes can send power back up, so many small participants take part. For the second, strong answers mention clear rules and the homeowner staying in charge; families might quit if they felt their battery was drained by someone else on the wrong night.

Report: Look for a clear answer, two reasons taken from the article (for example: fewer dirty, expensive peaker plants; saves money and emissions; helps solar power by fixing timing), a fair statement of the other side (for example: it may leave out renters and lower-income families, or people may not trust a company controlling their battery), and a conclusion that matches the answer.

Can Staying Cool Heat Up the Planet?



Built from *The Air Conditioner Paradox* by David Lee, Sustainability Editor

Grades 4–8 · About 45 minutes · ★ everyone · ★★ older readers

Name _____

Date _____

1. Before You Read

★ How do you and your family stay cool on a very hot day? List as many ways as you can.

★ A "paradox" is something that seems to work against itself. Can you think of a way that fixing a problem could make the same problem worse?

2. The Short Version

Read this first. Older readers: read the full article too.

A **paradox** is something that seems to work against itself. This article is about one you can plug into the wall: the air conditioner.

For about a hundred years, many people in Europe thought air conditioning was something they did not need. Now summers there are getting hotter, and people are buying air conditioners by the million. Heat waves are dangerous, especially for older, sick and poor people, and air conditioning is the best tool for keeping people safe in a bad one.

Here is the catch. Air conditioners use lots of electricity on the hottest afternoons, and in much of the world that electricity still comes from burning fossil fuels. The cooling chemicals inside, called refrigerants, also warm the planet if they leak. So David describes a **loop**: warming leads to more cooling, and cooling, the way it is powered today, leads to more warming.

David says nobody is the villain. A grandmother buying a cooling unit is making a sensible choice. This is a system problem, and he sees four ways out. Better machines: the best ones give several times more cooling for the same power as the cheap ones.

Timing: cooling is needed most on sunny afternoons, just when solar panels make the most power. Buildings: shade trees, thick

walls, breezes and white roofs cool a neighborhood for free. Honesty: cooling should be planned as a basic need, like heating and clean water.

3. Word Bank

Word	What it means
paradox	something that seems to work against itself, like a cure that also makes the sickness worse
refrigerant	the special chemical inside an air conditioner that carries heat away; it warms the planet if it leaks out
efficiency	how much useful work a machine does for the energy it uses
infrastructure	the basic things a whole community needs and shares, like roads, water pipes and power lines
adaptation	changing the way you live to handle new conditions, like a hotter climate

★ Use **efficiency** in a sentence of your own.

4. Check Your Understanding

★ 1. Why are people in Europe buying air conditioners by the million? Answer in one sentence.

★ 2. According to the article, about how much of the world's electricity already goes to cooling?

☐ almost none ☐ about a tenth ☐ about half ☐ almost all

★ 3. Name two ways air conditioners can add to the warming of the planet.

★ 4. Why does the author say air conditioning and solar power make a natural pair?

★★ 5. The author writes, "Cheap to buy means expensive to run." What does he mean, and why does it matter for families who are buying their first air conditioner?

5. David's Audit

David has one rule for every new technology: audit it. He asks three questions: Who builds it? Who pays for it? And who gets left off it? Fill in the audit for air conditioning in a warming world.

	Your answer
Who builds it? Who makes the machines, and who can decide which machines end up on the shelf?	
Who pays for it? Who pays to buy an air conditioner, and who pays to run it?	
Who gets left off it? Which families might end up with the worst machines, or none at all, and what could help them?	

6. Think Deeper

★ David writes that "the cheapest cooling is still the cooling a shade tree does for free." What does he mean? Name one other way a building or a street could stay cooler without an air conditioner.

For Teachers and Parents: Answer Key

Word bank sentence: Answers vary; check that the student uses efficiency to mean how much useful work something does for the energy it uses.

1. Heat waves are getting worse, and air conditioning is the most effective way to keep people safe in a severe heat wave.
2. About a tenth.
3. Air conditioners use lots of electricity, and in much of the world that electricity still comes from fossil fuels. Also, the refrigerants inside them are strong greenhouse gases when they leak.
4. Cooling is needed most in the afternoon, and solar panels also make the most power in the afternoon. The same sun that causes the need for cooling can help power it, with batteries helping in the early evening.
5. Cheap air conditioners cost less at the store but use much more electricity for the same cooling, so families pay more later on their electricity bills. The cheap, inefficient machines are the ones most likely to be bought in places where price matters most, so the families with the least money can end up paying the most to stay cool, and the extra electricity adds to warming.

Audit (sample answers): Who builds it: companies that make the machines; governments can shape which machines are sold through efficiency standards, labeling and bulk buying; architects, city planners and heat officers shape the buildings and streets. Who pays: families pay to buy the units and then pay to run them on their electricity bills; cheap units cost less up front but more over time. Who gets left off: households least able to afford the good machines, and the older, sick and poor people who are most at risk in heat waves. The article suggests public cooling centers, efficiency help aimed at those households, and cooler streets with trees and reflective surfaces.

Think deeper: Open answers. For the first question, strong answers explain that trees give shade at no cost and without using electricity, so cooling can start with nature and design before any machine turns on; other ways from the article include thick walls, cross-breezes, white roofs and reflective surfaces. For the second, strong answers might include opening public cooling centers, planting street trees, helping families get efficient air conditioners, or making sure the power grid is ready for hot summers.

Report: Look for a clear answer, two reasons taken from the article (for example: heat waves are dangerous, especially for older, sick and poor people; air conditioning saves lives; cooling centers and efficiency help can protect families who cannot afford good machines), a fair statement of the other side (for example: more cooling uses more electricity and can add to warming, or planning costs money), and a conclusion that matches the answer.

Clean Power Passes Coal (and Nobody Threw a Parade)



Built from *The Solar Century Arrives Quietly* by David Lee, Sustainability Editor

Grades 4–8 · About 45 minutes · ★ everyone · ★★ older readers

Name _____

Date _____

1. Before You Read

★ Where do you think the electricity in your home comes from? Write your best guess.

★ Some big changes happen so slowly that nobody notices on the day, like growing taller. Describe another change like that.

2. The Short Version

Read this first. Older readers: read the full article too.

Some big moments get a ceremony, with ribbons and cameras. This one got a spreadsheet. The yearly reviews of the world's electricity data showed that **renewable energy** has passed coal as the biggest source of electricity on Earth. In 2025, renewables made about a third of the world's electricity, just a little more than coal.

That is a big deal. Coal has powered the world's electricity since electricity began. In the past, new kinds of energy were simply added on top: oil joined coal, gas joined oil, and nothing actually shrank. This time, electricity from **fossil fuels** started to go down, even while the world used more electricity overall.

What caused it? Solar power got cheap. For twenty years it kept getting cheaper, until in most of the world it became the cheapest electricity people have ever made. David says this was won by factory engineers, by installers, and by contests where the lowest price won, not by speeches. A price, he writes, does not get tired.

There is fine print. Electricity is only about a fifth of the energy the world uses, and steel, cement, planes, ships and heating still mostly run on fossil fuels. The sun sets every night, so until batteries get cheaper, fossil plants still fill the gaps. And the world keeps using more electricity, so clean power has to keep racing to stay ahead.

3. Word Bank

Word	What it means
milestone	an important moment that marks how far something has come
renewable energy	power from sources that do not run out, like sunlight and wind
fossil fuels	coal, oil and gas, which are burned for energy and pollute the air
transition	a change from one way of doing things to another
demand	how much of something people want or use

★ Use **milestone** in a sentence of your own.

4. Check Your Understanding

★ 1. What milestone does the article report? Answer in one sentence.

★ 2. According to the article, about how much of the world's electricity did renewables make in 2025?

☐ about a tenth ☐ about a third ☐ about half ☐ almost all

★ 3. How was this change different from earlier energy "transitions," when oil joined coal and gas joined oil?

★ 4. According to the article, what was the main reason solar power grew so fast?

★★ 5. The author writes, "Electricity is not energy." What does he mean? Name two things the article says still run mostly on fossil fuels.

5. David's Audit

David has one rule for every new technology: audit it. He asks three questions: *Who builds it? Who pays for it? And who gets left off it?* Fill in the audit for the rise of solar power.

	Your answer
Who builds it? According to the article, whose everyday work made solar power win?	
Who pays for it? How did price decide which kind of power got built?	
Who gets left off it? What parts of the world's energy use, and what hours of the day, does this milestone not cover yet?	

6. Think Deeper

★ David predicts that today's kids may find it hard to believe the old way ever existed, "the way we squint at photographs of cities lit by gas lamps." What does he mean? What is something from today that you think kids in the future will find hard to believe?

★★ David writes that solar power "was not won by summits or slogans" but by a falling price, and that "a price does not get tired." Why might a falling price change the world more steadily than speeches do? Can you think of a reason people still need to make plans and rules, too?

7. Write Your Report

- **My answer:**
- **Reason 1 (from the article):**
- **Reason 2 (from the article):**
- **One thing the other side would say:**
- **My conclusion:**

For Teachers and Parents: Answer Key

Word bank sentence: Answers vary; check that the student uses milestone to mean an important moment that shows progress.

1. Renewable energy has overtaken coal as the largest source of electricity on Earth.
2. About a third.
3. In earlier transitions, new fuels were added on top of old ones and nothing actually declined. This time, fossil-fuel electricity began to go down even while total demand for electricity grew.
4. Solar power got cheap. It kept getting cheaper for two decades until, across most of the world, it became the cheapest electricity ever produced.
5. Electricity is only one part of the energy the world uses, about a fifth of it. Cleaning up the power grid is the easiest part; much of the rest still runs on fossil fuels. Things named in the article: steel, cement, planes, ships and heating.

Audit (sample answers): Who builds it: factory engineers who kept cutting the cost of panels, installers who learned to mount panels in hours instead of days, and countries that held auctions where the lowest bid won. Who pays: buyers chose the cheapest power, and in sunny countries the lowest bid kept being solar; as more solar was built, its price kept falling. Who gets left off: the four-fifths of energy that is not electricity, such as steel, cement, planes, ships and heating; and the nighttime hours, when the sun is down and fossil plants still fill the gap until batteries get cheaper. Also, growing demand from electric cars, heating, air conditioning and data centers means clean power has to keep up every year.

Think deeper: Open answers. For the first question, strong answers explain that just as gas-lit cities seem strange to us now, a world where most electricity came from burning coal may seem strange to future kids. For the second, strong answers explain that a low price keeps working whatever happens in politics, because people choose the cheaper option; reasons people still need plans and rules might include that the article says policy can speed the change up or slow it down by years, and that the fine print (energy beyond electricity, nighttime power, growing demand) still has to be solved.

Report: Look for a clear answer, two reasons taken from the article (for example: coal had powered electricity since it began; this is the first time a fuel has actually declined instead of just being added to; solar became the cheapest electricity ever), a fair statement of the other side (for example: electricity is only about a fifth of energy use; fossil plants still cover the hours when the sun is down; demand keeps rising), and a conclusion that matches the answer.

Why Did the Whole World Watch One Soccer Tournament?



Built from *The Party of 48: The World Cup Comes to Everyone* by Patrick Kim, Culture Editor

Grades 4–8 · About 45 minutes · ★ everyone · ★★ older readers

Name _____

Date _____

1. Before You Read

★ Think of a time you watched something at the same moment as lots of other people, like a big game, a show, or a parade. What was it like?

★ Do you and your friends usually watch the same shows and videos, or different ones? Why do you think that is?

2. The Short Version

Read this first. Older readers: read the full article too.

In June 2026, the soccer World Cup came to North America. For the first time, 48 teams played, which is 16 more teams than ever before. There were 104 matches in three host countries: the United States, Canada, and Mexico.

Patrick Kim says the World Cup is the biggest shared event people have. Billions of people watch it. All year, Patrick writes about the end of the **monoculture**, the days when almost everyone watched the same things. Today, most people watch different things on their own screens. The World Cup is the rare exception, when strangers gather around one screen and cheer together. Patrick calls this crowd the **assembled audience**.

Many people in the United States and Canada came from other countries, so lots of teams had fans living nearby. Some fans got their first chance to see their home country play on this stage. Patrick says the host became "everyone's second country."

Patrick also looks at the money. He says adding more teams was a business decision first: more matches meant more money. Ticket prices could change with demand, and special packages cost a lot. Many fans watched from outside the stadiums, at watch parties, in plazas, and in restaurants.

Even so, Patrick calls the World Cup a party for the whole planet. His advice: "Bring a flag. Any flag."

3. Word Bank

Word	What it means
host	the country or city where a big event takes place
debutant	a team playing in the World Cup for the very first time
diaspora	people who live far from the country their family came from
monoculture	a time when almost everyone watches, hears, and talks about the same things
dynamic pricing	when ticket prices go up or down depending on how many people want them

★ Use **host** in a sentence of your own.

4. Check Your Understanding

★ 1. How big was this World Cup?

- ☐ 32 teams and 64 matches ☐ 48 teams and 104 matches ☐ 48 teams and 48 matches

★ 2. Name the three countries that hosted this World Cup.

★ 3. Patrick says the host was "everyone's second country." Why did so many visiting teams feel almost at home?

★ 4. Name two places where fans watched the games when they were not inside a stadium.

★★ 5. Patrick says growing to 48 teams was "a business decision before it was a sporting one." What does he mean? What do the purists (fans who like the old way) say about it?

5. Patrick's Attention Map

Patrick studies attention: how a crowd gets put together, who pays for it, and who profits from it. Most of the time, he says, everyone watches something different. Fill in the map for the World Cup. Then pick one thing your whole class or family watches together and map that too.

★ **Our shared thing:** What does your whole class or family watch together?

	The World Cup (from the article)	Our shared thing
Who is watching? Name the different groups of people.		
Who pays, and who makes money? Follow the money.		
What brings people together? Why do different people gather around it?		

★★ Which one gathers more different kinds of people: the World Cup or your shared thing? Why?

6. Think Deeper

★ Patrick writes that when the World Cup is close by, it "stops being programming and becomes weather." What do you think he means? Can you think of anything else that feels like weather?

★★ Patrick sees a struggle between "the global street party and the velvet rope around it." Expensive tickets mean many fans watch from outside. Who do you think a big event like the World Cup should be for? Explain.

7. Write Your Report

Write a short report answering this question: **Did making the World Cup bigger make it better?**

- **My answer:**
- **Reason 1 (from the article):**
- **Reason 2 (from the article):**
- **One thing the other side would say:**
- **My conclusion:**

For Teachers and Parents: Answer Key

Word bank sentence: Answers vary; check that the student uses host to mean the place where an event happens (or the act of holding it).

1. 48 teams and 104 matches.
2. The United States, Canada, and Mexico.
3. The United States and Canada are home to people from all over the world, and Mexico has its own soccer fans, so many visiting teams were surrounded by fans from their home country who live in the host cities.
4. Any two of: watch parties, plazas, restaurants.
5. He means the main reason for adding teams was money: more teams and more matches bring more TV (media) money and keep more soccer federations happy. Purists say that more is not better, just more.

Attention map (sample answers): World Cup, who is watching: billions of people around the world; fans in the host cities; families whose home countries are playing, including teams playing for the first time; American fans new to the sport; strangers at the same screen. Who pays and who profits: fans pay for tickets that change price with demand, for expensive packages, and for resale tickets; the tournament earns money from TV rights and tickets; resale sellers take a cut; hotels in some cities raise their prices. What brings people together: cheering for their home country, a team from their family's history playing nearby, the excitement of one huge shared event, watch parties and plazas. Shared-thing column and comparison: answers vary; look for specific groups of watchers, a reasonable guess about who pays and earns, and a clear reason people gather.

Think deeper: Open answers. For the first, strong answers explain that the World Cup is no longer just a show you choose to turn on; it is all around you, in traffic reports, restaurants, and group chats, like the weather. For the second, strong answers weigh both sides: the tournament earns money from tickets, but the fans who make the World Cup special are often left outside. Look for a clear opinion with a reason.

Report: Look for a clear answer and two reasons from the article. Reasons for "better": 16 more nations got to play, and some fans saw their country's team on this stage for the first time. Reasons for "not better": the change was mostly about money, purists say more is not better, and the group-stage math got more confusing. Check for a fair statement of the other side and a conclusion that matches the answer.

Why Did Everyone Watch the Halftime Show?



Built from *The Halftime Show Is the Main Event* by Patrick Kim, Culture Editor

Grades 4–8 · About 45 minutes · ★ everyone · ★★ older readers

Name _____

Date _____

1. Before You Read

★ Have you ever watched a big game or show mostly for something besides the main event, like the commercials, the snacks, or the halftime show? What was it?

★ Do you know any songs in a language other than English? Where did you first hear them?

2. The Short Version

Read this first. Older readers: read the full article too.

In February 2026, the Seattle Seahawks beat the New England Patriots in the Super Bowl, America's biggest football game. The game was decided early. Patrick Kim says the most important part of the night was not the football. It was the **halftime show**, the fourteen-minute concert in the middle of the game.

The star was Bad Bunny. One week earlier, he had won Album of the Year at the Grammys. His album was the first in Spanish ever to win that top prize. At halftime, he sang mostly in Spanish and filled the stage with Puerto Rican flags and culture. Lady Gaga and Ricky Martin joined him.

Patrick explains that halftime used to be a bathroom break. That started to change with Michael Jackson's show in 1993. Now millions of people who don't care about football tune in just for the show. Patrick says the Super Bowl is the last night of the year when about a hundred million Americans watch the same thing at once.

Some people were unhappy with the choice of singer and argued about it for months. Patrick says all that arguing gave every side attention, so everyone got something out of it.

Finally, Patrick says the show worked like a **census**. Lots of Americans already listen to music in Spanish. The show did not change American culture. It showed what American culture already looks like.

3. Word Bank

Word	What it means
halftime	the break in the middle of a game, between the first half and the second half
spectacle	a big, exciting show that lots of people want to see
controversy	a big argument where people strongly disagree about something
census	an official count of the people who live in a place
ritual	something people do the same way again and again, like a tradition

★ Use **spectacle** in a sentence of your own.

4. Check Your Understanding

- ★ 1. What did Bad Bunny win one week before the Super Bowl?
- A football trophy ○ Album of the Year at the Grammys ○ A Super Bowl ring
- ★ 2. Why was Bad Bunny's Album of the Year win a first?

★ 3. What was halftime like for most of Super Bowl history? Whose show in 1993 is usually said to have changed it?

★ 4. Patrick says the halftime performer plays for free. What does the performer get instead?

★★ 5. Patrick says that in the fight over the show, "every party to that fight got what it wanted." Name the three sides and what each one got.

5. Patrick's Attention Map

Patrick studies attention: how a crowd gets put together, who pays for it, and who profits from it. Most of the time, he says, everyone watches something different. The Super Bowl is one of the last nights when about a hundred million Americans face the same direction. Fill in the map for the halftime show. Then pick one thing your whole class or family watches together and map that too.

★ **Our shared thing:** What does your whole class or family watch together?

	The halftime show (from the article)	Our shared thing
Who is watching? Name the different groups of people.		
Who pays, and who makes money? Follow the money and the attention.		
What brings people together? Why do different people gather around it?		

★★ Which one gathers more different kinds of people: the halftime show or your shared thing? Why?

6. Think Deeper

★ Patrick says the Grammys and the NFL were the last to notice how popular Spanish-language music had become, like "your dad discovering a meme." What do you think he means? Why is that funny?

★★ Patrick says the halftime show is the main event because "it's the only mirror everyone still stands in front of at the same time." What does a mirror show you? What do you think a big shared show can tell a country about itself?

7. Write Your Report

Write a short report answering this question: **Is the halftime show really more important than the game?**

- **My answer:**
- **Reason 1 (from the article):**
- **Reason 2 (from the article):**
- **One thing the other side would say:**
- **My conclusion:**

For Teachers and Parents: Answer Key

Word bank sentence: Answers vary; check that the student uses spectacle to mean a big, exciting show that draws a crowd.

1. Album of the Year at the Grammys.
2. It was the first Spanish-language album ever to win Album of the Year, the top prize in the history of the Grammys.
3. It was treated like a bathroom break: marching bands, an aging star, filler between the two halves of the game. The change is usually dated to Michael Jackson's show in 1993.
4. Attention. Patrick says the reward comes afterward: more people streaming the performer's music, tour announcements, and a whole week of people talking about the show.
5. The league (the NFL) got weeks of free excitement and buzz before the game. The performer got higher stakes, so the concert became a statement and simply singing in Spanish felt meaningful. The people who objected got something to keep complaining about. Patrick's point is that the argument itself turned into attention, and everyone gained from it.

Attention map (sample answers): Halftime show, who is watching: tens of millions of Americans; football fans; people who don't care about football but come for the show; fans of Bad Bunny; people who had argued against the choice of singer. Who pays and who profits: the performer plays for free but is paid back in attention (streams, tour announcements, a week of talk); the league gets weeks of free buzz; commercials had been building up the show for weeks. What brings people together: a huge shared national event, the last night of the year when about a hundred million Americans watch the same thing; the excitement and the arguments about the show; Bad Bunny's Grammy win the week before. Shared-thing column and comparison: answers vary; look for specific groups of watchers, a reasonable guess about who pays and who gains, and a clear reason people gather.

Think deeper: Open answers. For the first, strong answers explain that lots of listeners already loved music in Spanish, and the big award shows and the NFL only caught up at the end, the way a parent might find out about a meme after everyone else is done with it. For the second, strong answers explain that a mirror shows you what you really look like, and that the show reflected the country as it already is, including how many Americans listen to music in Spanish. Look for a clear idea with a reason.

Report: Look for a clear answer and two reasons from the article. Reasons for "yes": the game was decided early, the show was history, more people care about the show than about football, the Super Bowl is the last night everyone watches the same thing, and the show is the most valuable stage in entertainment. Reasons for "no": Patrick mentions a view that mourns the football, which says the country built a holiday where the game itself has become the interruption; the Super Bowl is still a football game. Check for a fair statement of the other side and a conclusion that matches the answer.

Why Does Everyone Watch Something Different Now?



Built from *The Death of the Monoculture: Why Nothing Is Everywhere Anymore* by Patrick Kim, Culture Editor

Grades 4–8 · About 45 minutes · ★ everyone · ★★ older readers

Name _____

Date _____

1. Before You Read

★ Name a show, song, or video that everyone in your class knows. Was it easy or hard to think of one?

★ Ask a grown-up what they watched on TV when they were your age. Did all their friends watch the same thing?

2. The Short Version

Read this first. Older readers: read the full article too.

Ask grown-ups what they watched on TV as kids, and people the same age often name the same few shows. Back then, almost everyone watched the same things at the same time. In 1983, more than a hundred million Americans watched the last episode of a show called M*A*S*H together, on the same night. Patrick Kim calls that time the **monoculture**: an era when almost everyone watched, heard, and talked about the same things.

Patrick says the monoculture happened because there were so few choices. There were only three or four TV networks, a few dozen radio stations, and one Top 40 chart. If there is only one well, everyone drinks from it.

Then the internet arrived. Now there are streaming services, playlists, gaming soundtracks, and short video clips. An **algorithm** picks things just for you, so everyone watches something different.

Patrick says this change was good in some ways. In the old days, a small group of TV bosses chose which stories got told. Now a Korean drama can top the charts in Kansas, and artists can find fans without anyone's permission.

But something was lost too. Shared stories help strangers find common ground. Today, people can know everything about their own favorite things and nothing about their neighbor's.

Shared moments still happen at big events, like a World Cup, a stadium tour, or a movie opening. Patrick's advice: watch something at the same time as another person.

3. Word Bank

Word	What it means
monoculture	a time when almost everyone watches, hears, and talks about the same things
scarcity	when there is only a little of something, not enough for everyone to have lots of choices
algorithm	a set of computer rules that picks what to show you next
gatekeeper	a person who decides what gets in and what stays out
fragmentation	breaking into many small pieces

★ Use **algorithm** in a sentence of your own.

4. Check Your Understanding

★ 1. About how many Americans watched the last episode of M*A*S*H in 1983?

- ☐ About ten thousand ☐ About one million ☐ More than a hundred million

★ 2. In your own words, what was the monoculture?

★ 3. Patrick says the monoculture "wasn't a golden age. It was a plumbing situation." Why did almost everyone watch the same things back then?

★ 4. Name two ways people find new music today, according to the article.

★★ 5. Patrick says that for some people, the end of the monoculture felt "like a jailbreak." For others, it was a loss. Name one thing that got better and one thing that was lost.

5. Patrick's Attention Map

Patrick studies attention: how a crowd gets put together, and who controls what it sees. Most of the time, he says, everyone watches something different. Fill in the map for the old days of the monoculture and for today. Then pick one thing your whole class or family watches together and map that too.

★ **Our shared thing:** What does your whole class or family watch together?

	Back then (from the article)	Today (from the article)	Our shared thing
Who is watching? How many people, and are they watching the same thing?			
Who decides what people see? Follow the pipes.			
What brings people together? Why do different people gather around it?			

★★ Which gathers more different kinds of people: a big show from the monoculture days or your shared thing? Why?

6. Think Deeper

★ Patrick writes that the internet "blew up the well and replaced it with an ocean." What was the well, and what is the ocean? Would you rather have the well or the ocean? Why?

★★ Patrick worries that we "stopped rehearsing the skill of caring about the same thing at the same time." Why might that skill matter? How could your class or family practice it?

7. Write Your Report

Write a short report answering this question: **Is it better when everyone watches the same things, or when everyone can watch something different?**

- **My answer:**
- **Reason 1 (from the article):**
- **Reason 2 (from the article):**
- **One thing the other side would say:**
- **My conclusion:**

For Teachers and Parents: Answer Key

Word bank sentence: Answers vary; check that the student uses algorithm to mean computer rules that choose what to show someone.

1. More than a hundred million.
2. Answers vary. The monoculture was a time when almost everyone in a country watched, heard, and talked about roughly the same shows, songs, and movies at roughly the same time.
3. There were very few choices: three or four TV networks, a few dozen radio stations, one local movie theater, and one Top 40 chart. With so few channels, the biggest show was enormous, so everyone watched the same things.
4. Any two of: playlists, gaming soundtracks, fifteen-second video clips, streaming services.
5. Got better: in the old days, a small group of TV executives chose a narrow set of stories, faces, and sounds, and people outside that band were left out. Now a Korean drama can top the charts in Kansas, small groups of fans can keep a niche style of music going, and artists can build careers without a gatekeeper. Was lost: shared stories that help strangers find common ground, like everyone talking about last night's episode. Now there are many deep communities with almost no bridges between them.

Attention map (sample answers): Back then, who is watching: almost the whole country at once, such as more than a hundred million Americans watching the last M*A*S*H on the same night. Today, who is watching: everyone watches something different, each person on a personal "channel of one," and fans form many small, deep communities. Back then, who decides: a few TV networks, radio programmers, and a small number of executives who chose a narrow band of stories. Today, who decides: the algorithm, playlists, and clips, and artists can reach fans without a gatekeeper. Back then, what brings people together: there was only one well, so everyone shared the same shows and talked about them the next day. Today, what brings people together: big events people choose to join at the same time, like a World Cup, a stadium tour, a movie release that turns into a costume party, or a song everyone hears for a month. Shared-thing column and comparison: answers vary; look for specific groups of watchers, a reasonable idea of who or what decides what they see, and a clear reason people gather.

Think deeper: Open answers. For the first, the well is the small number of channels everyone shared in the old days; the ocean is the endless supply of shows, music, and videos online today. Strong answers give a reason for their choice, such as more choice and more kinds of stories (ocean) or more things in common with others (well). For the second, strong answers explain that caring about the same thing helps people understand each other and find common ground, and give a real way to practice, such as a family movie night or a class watching a big event together.

Report: Look for a clear answer and two reasons from the article. Reasons for "the same things": shared stories help strangers find common ground, the monoculture created everyday conversations that held people together, and without it people know a lot about their own corner and little about their neighbor's. Reasons for "something different": the old

system left out many stories, languages, and communities; today a Korean drama can be a hit in Kansas, small fan communities can thrive, and artists don't need a gatekeeper. A strong answer may also use Patrick's middle path: keep the choices, but show up on purpose for shared events. Check for a fair statement of the other side and a conclusion that matches the answer.

One Case, First Ever: Should You Worry?



Built from *One Case: How to Read a First* by Peter Lee, Health Editor

Grades 4–8 · About 45 minutes · ★ everyone · ★★ older readers

Name _____

Date _____

1. Before You Read

★ When a headline says something happened for the "first time ever," how does that make you feel? Curious, worried, excited, or something else? Why?

★ Think of a news story that sounded scary. How could you find out whether it was really dangerous to you?

2. The Short Version

Read this first. Older readers: read the full article too.

A patient in Washington State became the first person anywhere ever confirmed to have a kind of bird flu called **H5N5**. The patient was an older adult with other health problems. They most likely caught it from a backyard flock of poultry that had been near wild birds. Sadly, the patient died.

Bird flu viruses are named after two proteins on their surface, called H and N. H5N5 is a close relative of H5N1, a bird flu that health agencies have watched for years. These viruses are very good at infecting birds and, so far, very bad at infecting people.

The biggest worry with bird flu is that it could learn to spread from person to person. So investigators checked the people around the patient. Nobody else got sick. The CDC and the WHO both said the risk to the public was low.

Peter says two lessons still matter. First, the alarm system worked. One unusual case was found, studied in a lab, and reported to the world within days. That only happens because labs and disease trackers have the staff and money to do it. Second, the people most at risk are poultry workers, dairy workers, and people who keep backyard flocks. They often live in rural areas, often have

no health insurance, and are often the last to see a doctor. Real **preparedness** means making sure they get protective gear, testing, and care they can afford.

3. Word Bank

Word	What it means
poultry	birds that people raise on farms or in backyards
transmission	when a germ passes from one person to another
surveillance	watching closely for signs of a disease so it can be caught early
triage	sorting cases by how serious or urgent they are
uninsured	not having health insurance, which helps pay for doctor visits and care

★ Use **surveillance** in a sentence of your own.

4. Check Your Understanding

★ 1. What made this case a "first"? Answer in one sentence.

★ 2. Where did the patient most likely catch the virus?

★ 3. When a first human case appears, what question do investigators ask before all others?

★ 4. How did the CDC and the WHO rate the risk to the public?

○ low ○ high ○ very high

★★ 5. Peter calls reports like this one "receipts showing the alarm system is on." Why does he say the months to worry about are the ones when you *stop* seeing such reports?

5. Peter's Reach Check

Peter has a rule: a cure that doesn't reach people is just a press release. So whenever he sees a medical "first," he checks who it actually reaches. Run Peter's Reach Check on this story.

	Your answer
What actually happened? Just the facts: who, where, and what the investigators found.	
Who did it reach? Who is at the front of the risk from bird flu?	
What would it take to reach more people? Name two things those people need to stay safe.	
What might a headline leave out? Write a short "first ever" headline, then one important fact it leaves out.	

6. Think Deeper

★ Peter says "first ever" deserves "more attention than it gets — and less panic than it invites." What do you think he means? How can a story be important without being scary?

★★ Peter says his desk's question is "not whether the science can see the virus, but who gets seen." If the people most at risk are often uninsured and the last to see a doctor, what could happen the next time one of them gets a fever? Why would that matter for everyone?

7. Write Your Report

Write a short report answering this question: **Was the first human case of H5N5 a reason to panic, or a sign that the alarm system was working?**

- **My answer:**
 - **Reason 1 (from the article):**
 - **Reason 2 (from the article):**
 - **One thing the other side would say:**
 - **My conclusion:**
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For Teachers and Parents: Answer Key

Word bank sentence: Answers vary; check that the student uses surveillance to mean watching closely for signs of disease.

1. It was the first confirmed human case of H5N5 bird flu anywhere, ever.
2. From a backyard poultry flock that had contact with wild birds.
3. Did anyone around the patient get sick? (In other words, did the virus spread from person to person?)
4. Low.
5. Reports like this show that labs and disease trackers are working and are staffed and funded. If the reports stop, it may not mean there are no cases; it may mean nobody is finding and reporting them. Strong answers may mention Peter's point that the United States is stepping back from parts of the global health system, so the staffing behind these reports is worth watching.

Reach Check (sample answers): What happened: an older adult in Grays Harbor County, Washington, with underlying conditions, caught H5N5, likely from a backyard flock, and died; contacts were monitored and no one else got sick. Who it reached: poultry workers, dairy workers, and people who keep backyard flocks, who are often rural and uninsured. What it would take: protective equipment, testing, and care they can afford. What a headline leaves out: answers vary; good ones note that there was no spread, that the public risk was rated low, or that the case was caught quickly because the alarm system worked.

Think deeper: Open answers. For the ★ question, strong answers explain that a "first" is worth understanding but this one was not a danger to most people; it was "important to specialists, not dangerous to you." For the ★★ question, strong answers connect cost and access to care: if someone at the front of the risk can't afford a doctor or testing, a new case might not be found, and the alarm system only works if cases are seen.

Report: Look for a clear answer, two reasons taken from the article (for example: no spread, low public risk, quick detection and reporting), a fair statement of the other side (for example: it was a first, and someone died), and a conclusion that matches the answer.

Half Price: Who Can Get the Medicine Now?



Built from *The Sticker Price of a Miracle* by Peter Lee, Health Editor

Grades 4–8 · About 45 minutes · ★ everyone · ★★ older readers

Name _____

Date _____

1. Before You Read

★ When a store puts something on sale for half price, does that mean everyone can buy it now? Why or why not?

★ Think of something useful that costs a lot of money. What could make it easier for more people to get it?

2. The Short Version

Read this first. Older readers: read the full article too.

For two years, some of the most effective weight-loss medicines ever made had a "velvet rope" around them, like the rope that keeps people out of a fancy party. They cost more than a thousand dollars a month. Insurance, which helps people pay for medical care, often said no. Medicare, a big government health plan, was not allowed by law to pay for weight-loss treatment at all.

Then the rope moved. The White House made deals with the two big companies that make the medicines. The **cash price**, what you pay when no insurance helps, dropped to about \$350 a month. That is about half of what people without insurance paid before. A government website began selling the medicines at that price. Medicare also planned to start covering the treatment for some patients in the middle of the year, with a \$50 copay. A copay is the small part of the bill the patient pays.

Peter calls this real relief. But he reads the fine print. First, \$350 is still a lot of money, and some families can't spare it. Second, the deal is not a law, so it could change. Third, more people wanting the medicine means more people needing a doctor, and doctors' offices are already crowded.

Peter's lesson: for two years, what kept people out was **income**. The rope moved. Did it move enough?

3. Word Bank

Word	What it means
coverage	when an insurance plan agrees to help pay for a kind of medical care
copay	the small, set amount a patient pays when insurance covers the rest
eligibility	the rules that decide who is allowed to get something
statute	a law that has been officially passed
bottleneck	a narrow spot where things get stuck and have to wait, like the neck of a bottle

★ Use **bottleneck** in a sentence of your own.

4. Check Your Understanding

★ 1. Before this winter, about how much did these medicines cost each month at their list price?

☐ about \$50 ☐ about \$350 ☐ over \$1,000

★ 2. Who made the deals that lowered the price?

★ 3. What was Medicare not allowed to do before this change?

★ 4. Peter says "cash price is not coverage." Who does a lower cash price help, and who does it still leave out?

★★ 5. Peter says patients are "building on an agreement, not a statute." Why does that matter so much for medicines people need to keep taking for a long time?

5. Peter's Reach Check

Peter has a rule: a cure that doesn't reach people is just a press release. So whenever he sees big news about a medicine, he checks who it actually reaches. Run Peter's Reach Check on this story.

	Your answer
What actually happened? Just the facts: who made a deal, and what changed about the price.	
Who did it reach? Who does the lower price help the most?	
What would it take to reach more people? Name two things that still stand in the way.	
What might a headline leave out? Write a short "half price" headline, then one important fact it leaves out.	

6. Think Deeper

★ Peter writes that "for two years the miracle had a velvet rope, and the rope was income." What do you think he means? Why is a velvet rope a good picture for this problem?

For Teachers and Parents: Answer Key

Word bank sentence: Answers vary; check that the student uses bottleneck to mean a narrow spot where things get stuck or have to wait.

1. Over \$1,000.
2. The White House and the two big companies that make the medicines.
3. Medicare was barred by law from covering weight loss at all.
4. It helps people who can pay cash every month, such as a middle-income patient with no insurance. It does nothing by itself for a family that cannot spare \$350 any more than it could spare \$1,000.
5. The lower prices came from a deal, not a law, so they can "un-happen" if the companies or the administration change their minds. These are long-term medicines: when people stop taking them, the weight generally comes back. A patient planning years of treatment could lose access partway through.

Reach Check (sample answers): What happened: the White House made deals with the two big manufacturers; the cash price fell to roughly \$346 to \$350 a month, about half the old price for uninsured patients; a federal website began selling at that price; and Medicare planned to cover treatment for some patients starting mid-year with a \$50 copay. Who it reached: middle-income patients with no insurance who can pay cash each month. What it would take: answers may include prices lower than \$350, real coverage instead of only a cash discount, fair eligibility rules, a lasting law instead of a deal, and enough doctor appointments. What a headline leaves out: answers vary; good ones note that \$350 is still too much for some families, that the deal is not a law, or that patients still need an appointment with a prescriber.

Think deeper: Open answers. For the ★ question, strong answers explain that the medicines worked, but only people with enough money could get past the "rope," so income decided who got treated. For the ★★ question, strong answers explain that an announcement gets attention, but the detailed rules about who qualifies are written later, when fewer people are watching, and those rules decide who actually gets the medicine.

Report: Look for a clear answer, two reasons taken from the article (for example: the price fell by about half; \$350 is still out of reach for some families; the deal could change; doctor appointments are a new bottleneck), a fair statement of the other side (for example: Peter calls it the biggest affordability move on any drug class in years), and a conclusion that matches the answer.

Fifty Dollars: Who Gets Through the Door?



Built from *The Fifty-Dollar Copay* by Peter Lee, Health Editor

Grades 4–8 · About 45 minutes · ★ everyone · ★★ older readers

Name _____

Date _____

1. Before You Read

★ When a reporter writes about a promise, why might it be a good idea to come back months later and check on it?

★ Think of a rule that says who is allowed to join something, like a team or a club. Can two people who seem the same end up with different answers? How?

2. The Short Version

Read this first. Older readers: read the full article too.

In January, Peter wrote about a promise. By the middle of 2026, Medicare, a big government health plan, would pay for obesity medicine for the first time in its sixty-year history. Patients who qualified would pay a **copay**, their small share of the bill, of just \$50 a month.

In July, Peter went back to check. The coverage is real. Patients who qualify are getting medicine for \$50 that would have cost them more than a thousand dollars a month two years ago. Pharmacists say older patients often ask the price twice, sure the first answer was a mistake.

But Peter says the rest of the story is about the **sorting**: who gets in and who doesn't. To qualify, patients must meet rules about a weight measurement, related health conditions, and which plan they have. Two people with the same weight and the same doctor can get different answers because of paperwork. Clinics that serve wealthier patients have staff who fight "no" answers. Most other clinics don't. And even with coverage, patients still need a doctor, and many doctors are booked for months.

There is also an argument about money. Paying for the medicine costs a lot right away, but savings like fewer heart attacks take about ten years to show up.

Peter's big point: for sixty years, treating this condition was called a "lifestyle choice." The \$50 copay shows the system finally admitting that a disease was a disease.

3. Word Bank

Word	What it means
qualify	to meet the rules needed to get something
benefit	something a health plan agrees to pay for or provide
denial	when a health plan says "no" to paying for something
diagnosis	a doctor's official name for a person's health condition
conceding	admitting that something is true, often after arguing against it for a long time

★ Use **qualify** in a sentence of your own.

4. Check Your Understanding

★ 1. How much is the monthly copay for Medicare patients who qualify?

☐ \$5 ☐ \$50 ☐ \$500

★ 2. The rules for who qualifies depend on three things. What are they?

★ 3. Why do pharmacists say older patients often ask the price twice?

★ 4. Peter says "a benefit is an unlock, not a doctor." What still stands in the way after a patient qualifies?

★★ 5. Two patients with the same weight and the same doctor can get different answers. Give two reasons from the article, then explain why patients at clinics that serve wealthier people have an advantage.

5. Peter's Reach Check

Peter has a rule: a cure that doesn't reach people is just a press release. So whenever he sees big news about a medicine, he checks who it actually reaches. Run Peter's Reach Check on this story.

	Your answer
What actually happened? Just the facts: what Medicare now covers, and what patients pay.	
Who did it reach? Who is getting the most out of the new benefit so far?	
What would it take to reach more people? Name two things that would help more patients get through the door.	
What might a headline leave out? Write a short "\$50 medicine" headline, then one important fact it leaves out.	

6. Think Deeper

★ Peter writes, "Patients live on the first clock. Budgets are written on the second." What are the two clocks? Why might they lead to arguments about paying for this medicine?

★★ Peter says the benefit reaching some people more than others "is not a scandal" yet, but it would become one "if it is still true in three years." Why do you think he gives a new benefit some time? What would you want to see change by then?

7. Write Your Report

Write a short report answering this question: **Is the fifty-dollar copay reaching the people it was meant to help?**

- **My answer:**
 - **Reason 1 (from the article):**
 - **Reason 2 (from the article):**
 - **One thing the other side would say:**
 - **My conclusion:**
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For Teachers and Parents: Answer Key

Word bank sentence: Answers vary; check that the student uses qualify to mean meeting the rules needed to get something.

1. \$50.
2. Body-mass index (a weight measurement), related health conditions, and which plan the person has.
3. The price is so much lower than it used to be that they are sure the first answer was a mistake. The same prescriptions would have cost four figures (more than \$1,000) a month two years ago.
4. Getting an appointment. Primary care in much of the country is booked out for months, and starting these medicines responsibly takes visits, monitoring, and follow-up.
5. Reasons: plan type, paperwork, or one diagnosis code. Clinics that serve wealthier patients have staff whose job is to fight coverage denials; most clinics that serve everyone else don't. Strong answers may add Peter's point that the people who find their way through most easily are the ones with "the most practice navigating mazes."

Reach Check (sample answers): What happened: for the first time in its sixty-year history, Medicare now covers obesity medicine, at a \$50 monthly copay, for patients who qualify. Who it reached: patients on the right side of the rules, especially those at clinics with staff who fight denials; Peter says it is reaching "the covered more than the burdened." What it would take: answers may include help with paperwork and denials at every clinic, more doctor appointments, and fair qualifying rules. What a headline leaves out: answers vary; good ones note that not everyone qualifies, that paperwork can change the answer, or that patients still have to wait for a doctor.

Think deeper: Open answers. For the ★ question, the first clock is the cost, which comes right away in year one; the second is the savings (fewer heart attacks, fewer joint replacements, less diabetes), which arrive about a decade later and mostly in a different part of the budget. Strong answers explain that patients need help now, while budget planners see big costs now and savings much later. For the ★★ question, strong answers note Peter's point that every new benefit starts out reaching some people first; it becomes a real problem only if the gap never closes. Good answers name a change, such as the benefit reaching patients at clinics without denial-fighting staff.

Report: Look for a clear answer, two reasons taken from the article (for example: the coverage is live and works for people who qualify; paperwork and plan type can decide who gets in; appointments are booked for months), a fair statement of the other side (for example: patients who qualify are paying \$50 instead of more than \$1,000, and uneven early use is normal for a new benefit), and a conclusion that matches the answer.

What Is Homework For When a Machine Can Do It?



Built from *Homework in the Age of the Answer Machine* by Isaac Kim, Education Editor

Grades 4–8 · About 45 minutes · ★ everyone · ★★ older readers

Name _____

Date _____

1. Before You Read

★ What do you think homework is for? Write one reason teachers give it.

★ If an AI tool could finish your homework in seconds, what rule do you think your school should have about it? Why?

2. The Short Version

Read this first. Older readers: read the full article too.

AI tools can now write a homework essay in seconds. So schools everywhere are writing rules, called **AI policies**, about when students may use them. Many schools are writing these rules in a hurry, and the rules often change.

Isaac Kim collects school AI policies and compares them. He found that every policy in his stack fits into one of **three families**.

The first family is prohibition. It bans the machines and treats using them as cheating. This family is shrinking, because the software meant to catch AI writing does not work reliably. Schools that promised to catch cheaters ended up with false accusations, appeals, and even lawyers.

The second family is containment. It allows AI for some jobs, like brainstorming, but not others, like writing a draft. It is the biggest family. Its problem is that nobody can really see where a student stopped using the machine.

The third family is redesign, the smallest one. These schools decided the problem was the assignment, not the student. Work moves into the classroom: writing on paper, explaining answers out loud, giving presentations, and doing projects with check-ins. This takes the most work from teachers.

Surveys show most older students already use AI regularly. So Isaac says the real question is whether schoolwork will still show what each student can do alone. He believes only redesign will still make sense in five years.

3. Word Bank

Word	What it means
policy	a set of rules a school or group decides to follow
plagiarism	passing off someone else's work as your own
prohibition	a rule that says something is not allowed at all
containment	keeping something inside limits, like a fence around it
proxy	something that stands in for something else

★ Use **policy** in a sentence of your own.

4. Check Your Understanding

★ 1. Name the three families of school AI policies that Isaac found.

★ 2. Why is the prohibition family shrinking?

★ 3. Which family is the biggest in Isaac's stack of policies?

☐ prohibition ☐ containment ☐ redesign

★ 4. Name two ways that redesign schools changed how students show their learning.

★★ 5. Isaac says every containment rule is "an honor system in disguise." What does he mean? Why is that a problem for the rule?

5. Isaac's Side by Side

Isaac compares school systems the way an archivist compares documents: filed side by side, with the details on the record. Fill in each column using the article. In the last column, file your own school's approach.

	Prohibition	Containment	Redesign	My school
What it does				
What it gets right				
What it misses				
What it thinks homework is for				

★ Which family is your school's approach closest to?

☐ prohibition ☐ containment ☐ redesign ☐ a mix

6. Think Deeper

★ Isaac writes that "a rule that cannot be enforced is not a rule." What do you think he means? Do you agree?

★★ Isaac says the machine "did not break homework." Instead, it showed which schools were grading the thinking and which were grading the finished product. Explain the difference. Which kind of grading do you think tells a teacher more about you?

7. Write Your Report

Write a short report answering this question: **Which kind of AI policy should your school have: prohibition, containment, or redesign?**

- **My answer:**
- **Reason 1 (from the article):**
- **Reason 2 (from the article):**
- **One thing the other side would say:**
- **My conclusion:**

For Teachers and Parents: Answer Key

Word bank sentence: Answers vary; check that the student uses policy to mean a set of rules a school or group follows.

1. Prohibition, containment, and redesign.
2. The software meant to detect AI writing does not work reliably. Schools that promised to catch cheating could not deliver, and ended up with appeals, false accusations, and lawyers.
3. Containment.
4. Any two: moving work into the classroom, writing on paper, oral defenses (explaining answers out loud), presentations, supervised drafting, projects with checkpoints, or bringing back exams.
5. The rules depend on students being honest, because nobody can actually see whether a student stopped using AI where the rule says to stop (for example, after brainstorming). A rule no one can check is hard to enforce.

Side by side (sample answers): Prohibition: bans AI and treats it as cheating or plagiarism; gets right that students should do their own work; misses that detection software is unreliable, so the rule cannot be enforced; thinks homework proves effort. Containment: allows AI for some tasks or subjects and requires citing it like a source; gets right that the machines exist and are not going away; misses that no one can see where the allowed use ended; thinks homework is for practicing skills. Redesign: moves work into class, onto paper, into talks, presentations, and projects with checkpoints; gets right that it shows what a student can do alone; misses that it costs a lot of teacher time and money, and is slow; thinks homework was always a stand-in for thinking. My school: answers vary; check that the student describes a real rule and judges it fairly.

Think deeper: Open answers. For the first, strong answers explain that if a school cannot catch people breaking a rule, the rule does not really work; Isaac calls it "a mood." For the second, grading the thinking means checking how a student reasons and what they can do themselves; grading the finished product means checking only the essay or worksheet handed in, which a machine could have made. Strong answers explain which shows a teacher more about the student and why.

Report: Look for a clear choice of one family, two reasons taken from the article, a fair statement of the other side (for example, that redesign takes the most teacher work, or that prohibition cannot be enforced), and a conclusion that matches the answer.

Why Did the Test Come Back?



Built from *The Test Comes Back* by Isaac Kim, Education Editor

Grades 4–8 · About 45 minutes · ★ everyone · ★★ older readers

Name _____

Date _____

1. Before You Read

★ Have you ever taken a test that counted for a lot? How did it feel?

★ If a college could look at only one thing about you, what should it be? Why?

2. The Short Version

Read this first. Older readers: read the full article too.

In spring 2020, test centers closed during the pandemic. So nearly every selective American college stopped requiring test scores. This was called going **test-optional**. At the peak, more than 1,800 colleges were test-optional, including every school in the Ivy League. Many people said the change would be permanent and would make admissions fairer.

Now the most selective colleges are bringing the test back. Their reason: scores helped them find talented students, especially from schools they knew nothing about.

Isaac Kim compares three systems. In Korea, one big exam, the Suneung, has always counted for a lot, and people there have long argued about that. Its defense is that a hard number is the same hard number for everyone. In Britain and the IB world, outside exams have always been the main measure. When teachers gave the grades during the pandemic, grades rose so much that exams came back. Only America tried taking the test away and judging students on everything else: grades, essays, activities, and recommendations.

What happened? Without scores, grades kept rising until whole schools were bunched at the top, and essays could be coached. But the test has problems too. Scores follow family income, and coaching works.

Isaac says colleges chose the test because it is **legible**: a score means the same thing in Seoul, in a small Georgia town, and at a Connecticut boarding school. Legible, he points out, does not mean fair.

3. Word Bank

Word	What it means
admissions	the way a college chooses which students get in
equity	fairness; giving everyone a real chance
inflation	when something keeps going up; grade inflation means grades rise so high they stop telling you much
reinstate	to bring back a rule that had been dropped
legible	easy to read and understand; here, a signal that means the same thing everywhere

★ Use **reinstate** in a sentence of your own.

4. Check Your Understanding

★ 1. Why did nearly every selective American college stop requiring test scores in the spring of 2020?

★ 2. Which country's system tried removing the test entirely and judging students on everything else?

☐ Korea ☐ Britain ☐ America

★ 3. Name two things colleges looked at instead of test scores.

★ 4. Isaac calls the case for bringing testing back "Exhibit A." Name two things that went wrong when colleges stopped looking at scores.

★★ 5. Isaac says colleges did not choose the test "because it is fair." They chose it because it is "legible." What does he mean? Why would an admissions office reading sixty thousand files need that?

5. Isaac's Side by Side

Isaac compares school systems the way an archivist compares documents: filed side by side, with the details on the record. Fill in each column using the article. In the last column, file your own school's approach.

	Korea	Britain and IB	America	My school
How students are measured				
What it gets right				
What can go wrong				
What it thinks a test is for				

★ Which system is your school's way of measuring students closest to?

○ one big exam (Korea) ○ outside exams (Britain and IB) ○ everything else (America) ○ a mix

6. Think Deeper

★ Isaac writes that a high score from an unknown rural school was information, but "its absence was silence." What do you think he means? Who could be missed when there is no score?

★★ Isaac sums up the research this way: the test is "an imperfect measure that adds real information." Can something be imperfect and still useful? Explain, using one fact from Exhibit A and one from Exhibit B.

7. Write Your Report

Write a short report answering this question: **Should colleges require a test score from every student who applies?**

- **My answer:**
- **Reason 1 (from the article):**
- **Reason 2 (from the article):**
- **One thing the other side would say:**
- **My conclusion:**

For Teachers and Parents: Answer Key

Word bank sentence: Answers vary; check that the student uses reinstate to mean bringing back a rule that had been dropped.

1. The test centers were closed during the pandemic, so students could not take the test.
2. America.
3. Any two: grades, essays, activities, or recommendations.
4. Any two: grades kept rising until whole schools were bunched at the top of the scale; essays became something that could be coached on a huge scale; research some colleges cited found that scores predicted college performance better than inflated grades did; going test-optional had not made the students more varied by family income, as promised.
5. Legible means easy to read: a score means the same thing no matter where the student comes from, whether Seoul, a small town in Georgia, or a Connecticut boarding school. An office reading sixty thousand files needs at least one signal it can compare across all of them. Isaac says this describes how big systems actually behave; he does not mean the test is fair.

Side by side (sample answers): Korea: one big national exam, the Suneung, decides a lot; gets right that a hard number is the same hard number for everyone; can go wrong because one exam decides so much, which Koreans have argued about for a long time; a test is for measuring everyone the same way. Britain and IB: outside exams are the main measure; gets right that grades keep their meaning; when teachers had to give grades during the pandemic, grades went up so much that the exams came back (the article does not name a problem with the exams themselves); a test is for checking students from outside the school. America: went test-optional and judged students on grades, essays, activities, and recommendations, and now the top colleges require the test again; gets right that it tried to look at the whole student and aimed for fairness; went wrong because everything else became easier to buy or coach, and grades inflated; a test is for being legible, one signal that means the same thing everywhere and helps find talented students from unknown schools. My school: answers vary; check that the student describes how their school really measures students and judges it fairly.

Think deeper: Open answers. For the first, strong answers explain that a high score told colleges a student from a little-known school was talented; without a score, the college had nothing to go on, so that student could be overlooked. For the second, strong answers use Exhibit A (scores add information and predicted college performance better than inflated grades) and Exhibit B (score gaps follow family income, and coaching works) to show the test is useful but not perfectly fair.

Report: Look for a clear yes or no, two reasons taken from the article, a fair statement of the other side (for example, that scores follow family income and coaching works, or that without scores grades and essays became easier to buy), and a conclusion that matches the answer.

What Happens When School Has to Pause?



Built from *The Interrupted Timeline* by Isaac Kim, Education Editor

Grades 4–8 · About 45 minutes · ★ everyone · ★★ older readers

Name _____

Date _____

1. Before You Read

★ Have you ever taken a long break from something, like a sport, a lesson, or school? What was it like to come back?

★ Does taking a break from school always mean falling behind? Why or why not?

2. The Short Version

Read this first. Older readers: read the full article too.

In South Korea, the law requires able-bodied men to do **military service** for about eighteen months, starting sometime in their twenties. Korean male students at international schools often ask each other one question: "Before or after?" They mean: should I serve before university, after it, or in the middle?

Most Korean university students take a **leave of absence** partway through their degree, often between second and third year. Korean universities are built for this. The forms exist, and coming back is routine.

American universities are different. Their leaves are designed for illness or money problems, not national service. A student who leaves can lose his housing guarantee, have scholarship trouble, and need to redo his student visa. The students Isaac interviewed said they built their own plan from emails to the school office, advice from older students, and phone calls to the consulate.

Isaac says the real difference is how each system thinks about time. Western schools expect students to move straight through, from age eighteen to twenty-two, and a gap needs explaining. Korean society expects a pause and does not treat it as a life going off track.

The students feel both ways. They dread losing eighteen months. But returning students said service gave them perspective. One said, "Everyone pays for adulthood. I just paid early, in one installment."

Isaac's conclusion: there is no wrong answer to "before or after," only a form nobody has printed yet.

3. Word Bank

Word	What it means
obligation	something you must do because a law, rule, or promise requires it
enlistment	joining the military
leave of absence	official permission to step away from school or work for a while and come back later
registrar	the school office that keeps track of students' classes and records
installment	one part of a payment; paying "in one installment" means paying all at once

★ Use **obligation** in a sentence of your own.

4. Check Your Understanding

★ 1. When Korean male students at international schools say "before or after," what are they talking about?

★ 2. About how long is the military service Korea requires?

☐ six months ☐ eighteen months ☐ five years

★ 3. When do most Korean university students do their service?

★ 4. Name two problems a Korean student at an American university can run into when he leaves to serve.

★★ 5. Isaac says the path these students follow was "worn smooth not by the institution but by the feet of everyone who walked it before." What does he mean? How did the students figure out what to do?

5. Isaac's Side by Side

Isaac compares school systems the way an archivist compares documents: filed side by side, with the details on the record. Fill in each column using the article. In the last column, file your own school's approach.

	Korean universities	American universities	Students living between both	My school
How it thinks about time				
What happens if a student must pause				
Who made the plan for the pause				
What a gap means to it				

★ Which is your school's calendar closest to?

○ an unbroken conveyor belt ○ a timeline that can pause ○ a mix

6. Think Deeper

★ A student back from service described his time away not as "lost time" but as getting things in a different order. He said, "I just paid early." What do you think he meant? Do you agree?

★★ Isaac says Western schools run on "an unbroken conveyor," while Korean society expects a pause. Why might a school treat a gap as a problem? What could change if a school treated a pause as normal?

7. Write Your Report

Write a short report answering this question: **Is a pause in a student's education lost time?**

- **My answer:**
- **Reason 1 (from the article):**
- **Reason 2 (from the article):**
- **One thing the other side would say:**
- **My conclusion:**

For Teachers and Parents: Answer Key

Word bank sentence: Answers vary; check that the student uses obligation to mean something a person must do because a law, rule, or promise requires it.

1. When to do Korea's required military service: before university, after it, after the degree, or in the middle.
2. Eighteen months.
3. Partway through their degree, by taking a leave of absence, most often between the second and third year.
4. Any two: leaves of absence are designed for illness or money problems, not national service; housing guarantees can run out; scholarship terms can become uncertain; the student visa must be ended and set up again.
5. The university did not create a plan for these students. Each student had to build his own, and the way became easier because so many students had done it before. They used emails to the registrar, advice passed down from older students, and phone calls to the consulate.

Side by side (sample answers): Korean universities: a timeline can pause without a life going off track; the student takes a leave of absence, the forms exist, and coming back is routine; the universities built the plan, and returning students are a normal sight; a gap is expected and normal. American universities: an unbroken conveyor from age eighteen to twenty-two, freshman to senior; leaves are designed for illness or money problems, housing guarantees can run out, scholarships can become uncertain, and the visa must be redone; the students made the plan themselves, not the university; a gap needs an explanation on the transcript and is viewed with suspicion. Students living between both: they carry two calendars at once; they must fit eighteen months of service into an education planned across two countries; they built their own path from registrar emails, older students' advice, and consulate calls, translating between calendars; a gap brings both dread (it lands in years they were taught matter most) and perspective (returning students see deadlines differently). My school: answers vary; check that the student describes what really happens at their school when a student must miss a long stretch.

Think deeper: Open answers. For the first, the student meant that everyone has to take on adult responsibilities at some point; he did a big part all at once, early, instead of spread out later. Strong answers say whether they agree and why, and may mention that returning students spoke about gaining perspective. For the second, strong answers explain that a school built around a straight four-year path sees any gap as something that needs an explanation, and describe what might change if a pause were treated as normal, such as forms and plans already being ready, as in Korean universities.

Report: Look for a clear answer, two reasons taken from the article (for example, the dread of losing eighteen months in important years, or the perspective returning students describe), a fair statement of the other side, and a conclusion that matches the answer.

Can a Computer Invent a Medicine?



Built from *The Molecule Machines: AI-Designed Drugs Reach Their First Real Exam* by Ejin Chung, Science & Technology Editor

Grades 4–8 · About 45 minutes · ★ everyone · ★★ older readers

Name _____

Date _____

1. Before You Read

★ How do you think scientists find out whether a new medicine is safe and whether it really works?

★ Someone tells you a new invention will "change everything." What would you want to see before you believe them?

2. The Short Version

Read this first. Older readers: read the full article too.

Tech companies have long promised that artificial intelligence (AI) will design new medicines. This year, that promise faces its first real test: AI-designed drugs are moving into human **clinical trials**.

Part of the story is already a success. Proteins are tiny parts of living things, and a protein's shape decides what job it does. For fifty years, scientists struggled to predict what shape a protein would fold into. Finding just one shape by experiment could fill a scientist's whole PhD. Then a family of AI models called AlphaFold learned to predict shapes in minutes, for almost every protein science knows. It won a Nobel Prize in chemistry.

But knowing a shape is not the same as having a medicine. A drug has to stick to the right protein, stay away from thousands of wrong ones, and survive the liver, which tries to break it down. About nine out of ten drugs that reach human trials fail, usually because the body is more tangled than scientists expected.

The real question is: can AI make better guesses, so fewer drugs fail? AI labs have now started early trials of medicines for cancer and the immune system.

Here is the catch. Early trials, called **Phase 1**, only check safety in small groups of people. Whether a drug actually works is tested years later. Ejin's score for 2026: the molecules are in the exam room, but no grades are posted yet.

3. Word Bank

Word	What it means
protein	a tiny part of every living thing; its shape decides what job it does
clinical trial	a careful test of a new medicine in people
candidate	a possible new drug that is still being tested
efficacy	whether a medicine actually works
undruggable	a target in the body that scientists thought no medicine could work on

★ Use **candidate** in a sentence of your own.

4. Check Your Understanding

★ 1. What hard problem did the AlphaFold models solve?

★ 2. About how many drug candidates that enter human trials end up failing?

☐ 1 in 10 ☐ 5 in 10 ☐ 9 in 10

★ 3. Knowing a protein's shape is not enough to make a medicine. Name two things a drug has to do inside the body.

★ 4. What does a Phase 1 trial check?

☐ whether the drug is safe ☐ whether the drug cures the disease ☐ how much the drug costs

★★ 5. Ejin says the real claim is about "better guesses," not "faster paperwork." Explain the difference in your own words.

5. Ejin's Scoreboard: Results, Not Demos

Ejin keeps a public scoreboard. One column shows what the hype promised. The other shows what the data has actually delivered. Find three more claims or promises in the article and fill in the scoreboard. Then mark each one:

- **proven:** the article says the results are in, and it worked.
- **not yet:** testing has started, but the results that could prove it have not arrived.
- **we don't know:** the article says nobody can tell yet, or there is not enough information to decide.

What the hype promised	What has actually been shown so far	Score
Example: AI can predict the shape of a protein.	AI models found protein shapes in minutes, for almost every protein science knows.	proven
		☐ proven ☐ not yet ☐ we don't know
		☐ proven ☐ not yet ☐ we don't know
		☐ proven ☐ not yet ☐ we don't know

★★ Pick one claim you marked "not yet" or "we don't know." What result would move it to "proven"?

6. Think Deeper

★ Ejin says the honest scoreboard for 2026 reads "molecules in the exam room, no grades posted." What does that mean? Why is it too early to call AI-designed drugs a success or a failure?

★★ Ejin wrote down, ahead of time, which results would make the scoreboard go up and which would make it go down. Why is it a good idea to say in advance what would prove you right or wrong?

7. Write Your Report

Write a short report answering this question: **Has AI proven yet that it can design better medicines?**

- **My answer:**
- **Reason 1 (from the article):**
- **Reason 2 (from the article):**
- **One thing the other side would say:**
- **My conclusion:**

For Teachers and Parents: Answer Key

Word bank sentence: Answers vary; check that the student uses candidate to mean a possible new drug still being tested.

1. Predicting what shape a protein folds into from its gene sequence. Finding one shape by experiment used to take a very long time; the models did it in minutes.
2. 9 in 10.
3. Any two: stick (bind) to the right protein; avoid thousands of wrong proteins; survive the liver, which tries to break it down.
4. Whether the drug is safe (Phase 1 measures safety in small groups of people).
5. "Faster paperwork" means doing the same old drug discovery more quickly, with drugs still failing at the same rate. "Better guesses" means AI designs drugs that fail less often because it understands molecular shape.

Scoreboard (sample answers):

Claim	Shown so far	Score
AI can design new medicines.	AI-designed candidates have entered early human trials; no results yet.	not yet
AI-designed drugs are safe in people.	Phase 1 safety trials are just starting.	not yet
AI-designed drugs will fail less often than nine in ten.	Too few candidates have been tested for the ratio to mean anything.	not yet or we don't know
AI can hit "undruggable" targets.	A couple of current candidates aim at such targets; no results yet.	not yet

Accept "not yet" or "we don't know" for any drug claim if the student explains that trial results are not in. Only the protein-shape breakthrough is "proven." **Follow-up:** candidates hitting "undruggable" targets in trials, or AI-designed drugs failing clearly less often than nine in ten once enough have been tested.

Think deeper: Open answers. The AI drugs have started being tested ("in the exam room"), but the results that show whether they work are years away ("no grades posted"); Phase 1 only checks safety. Ejin says anyone declaring victory now is "selling something" and anyone declaring failure is "guessing." For the ★★ question, strong answers say that naming the test in advance keeps you honest: you cannot change the rules after you see the results, and readers can check whether you were right.

Report: The best-supported answer is "not yet." Look for a clear answer, two reasons taken from the article (for example: Phase 1 only checks safety; efficacy results are years away; nine in ten drug candidates fail; a protein shape is not a drug), a fair statement of the other side (for example: the protein-shape breakthrough was real and won a Nobel Prize; some candidates aim at "undruggable" targets; the industry is investing huge sums), and a conclusion that matches the answer.

Can a Circuit Follow Quantum Rules?



Built from *Schrödinger's Circuit: A Nobel for Making the Quantum World Visible* by Ejin Chung, Science & Technology Editor

Grades 4–8 · About 45 minutes · ★ everyone · ★★ older readers

Name _____

Date _____

1. Before You Read

★ Scientists sometimes study a question just because they are curious, with no plan to make money from it. Do you think that kind of science is worth doing? Why or why not?

★ Think of something you practiced for a long time before it paid off. How long did it take, and how did you keep going?

2. The Short Version

Read this first. Older readers: read the full article too.

Quantum rules are the strange rules that tiny things, like electrons and atoms, follow. For example, a tiny particle can slip through an energy barrier, a bit like a ball rolling straight through a hill instead of over it. This is called **tunneling**. Most people believed these rules only work for very small things, never for objects big enough to see.

The 2025 Nobel Prize in Physics went to three scientists, John Clarke, Michel Devoret and John Martinis, who showed otherwise. In the mid-1980s, they worked with an electrical circuit made of metal and big enough to see. They showed the whole circuit tunneling, and taking in energy only in fixed steps, like climbing stairs instead of a ramp. Billions of electrons acted together as one quantum object.

The hardest part was keeping the circuit quiet. Quantum behavior is "shy": any careless bump or stray noise makes it act normal again. So the team cooled the circuit to nearly the coldest temperature possible and shielded it from every disturbance.

That circuit is the direct ancestor of the **superconducting qubit**, the part inside many of the world's most famous quantum computers. Getting from the experiment to those computers took forty years.

Ejin's lesson: a curious question with no money plan grew into a whole industry. But today's quantum computers still make many errors and are not yet useful products. The prize honors the real foundation, not the hype.

3. Word Bank

Word	What it means
quantum	describes the strange rules that very tiny things, like electrons and atoms, follow
tunnel	to slip through a barrier instead of climbing over it, which quantum things can do
isolate	to keep something separate and protected from everything around it
qubit	a part that follows quantum rules; many quantum computers are built from them
hype	big excitement and promises about something, often more than it has shown so far

★ Use **isolate** in a sentence of your own.

4. Check Your Understanding

★ 1. What did the three scientists show about their electrical circuit?

★ 2. About how long did it take for the 1980s experiment to grow into the quantum computer industry?

☐ 4 years ☐ 14 years ☐ 40 years

★ 3. Ejin says the hard part was not building the circuit. What was the hard part, and why did it matter?

★ 4. How does Ejin describe today's quantum computers?

○ finished products that everyone uses ○ scientific instruments that still make many errors ○ machines that never make mistakes

★★ 5. Ejin says nobody could have honestly written a request for money (a grant proposal) for this experiment. Why not? Use the article in your answer.

5. Ejin's Scoreboard: Results, Not Demos

Ejin keeps a public scoreboard. One column shows what the hype promised. The other shows what the data has actually delivered. Find three more claims or promises in the article and fill in the scoreboard. Then mark each one:

- **proven:** the article says the results are in, and it worked.
- **not yet:** testing has started, but the results that could prove it have not arrived.
- **we don't know:** the article says nobody can tell yet, or there is not enough information to decide.

What the hype promised	What has actually been shown so far	Score
<i>Example:</i> A whole circuit, big enough to see, can follow quantum rules.	<i>In the 1980s experiment, the whole circuit tunneled and took in energy in fixed steps. It won the Nobel Prize.</i>	proven
		☐ proven ☐ not yet ☐ we don't know
		☐ proven ☐ not yet ☐ we don't know
		☐ proven ☐ not yet ☐ we don't know

★★ Pick one claim you marked "not yet" or "we don't know." What result would move it to "proven"?

6. Think Deeper

★ Ejin says the Nobel Prize honors "the foundation under the hype." What is the foundation, and what is the hype? Why does Ejin keep them apart?

★★ Ejin ends with a score: "curiosity 1, common sense 0." What did common sense say about quantum rules, and why does Ejin say curiosity won?

7. Write Your Report

- **My answer:**
- **Reason 1 (from the article):**
- **Reason 2 (from the article):**
- **One thing the other side would say:**
- **My conclusion:**

For Teachers and Parents: Answer Key

Word bank sentence: Answers vary; check that the student uses isolate to mean keeping something separate and protected from its surroundings.

1. That a whole electrical circuit, big enough to see, could follow quantum rules: it tunneled through an energy barrier and took in energy in fixed (discrete) steps, with billions of electrons acting as one quantum object.
2. 40 years.
3. Isolating the circuit: cooling it to near absolute zero and shielding it from stray noise. It mattered because quantum behavior is "shy"; if anything disturbs the circuit carelessly, it goes back to behaving normally (classically).
4. Scientific instruments that still make many errors.
5. In the 1980s, the question "can a circuit be quantum?" had no product plan, no market and no clear use. Nobody could have promised honestly that it would matter decades later, so the science had to be worth doing for its own sake first.

Scoreboard (sample answers):

Claim	Shown so far	Score
Engineers can build electrical parts that keep quantum rules.	The experiment proved circuits you can design and wire together can still tunnel.	proven
The 1980s circuit led to real quantum computer hardware.	It is the direct ancestor of the superconducting qubit used in famous quantum computers.	proven
Quantum computers will become useful machines.	Today's machines are scientific instruments; the date for a useful machine keeps sliding.	not yet or we don't know
Quantum computers can work without many mistakes.	The article says error rates are still "brutal."	not yet

Accept "not yet" or "we don't know" for claims about useful quantum computers if the student explains that the machines are not yet products. Only the circuit experiment and its link to qubit hardware are "proven." **Follow-up:** error rates dropping far enough, or a quantum computer that works as a useful machine rather than a scientific instrument.

Think deeper: Open answers. The foundation is the real, proven science: circuits that follow quantum rules, built through forty years of careful experiments. The hype is the big promises about quantum computers, which still have high error rates and are not yet useful products. Ejin keeps them apart because a prize for the foundation does not prove

the promises. For the ★★ question, common sense said quantum rules only work for tiny things and could never show up in something you can see; the three physicists refused to believe the quantum world had a size limit, and their experiment proved them right.

Report: The best-supported answer is "no" or "not yet." Look for a clear answer, two reasons taken from the article (for example: today's quantum computers are scientific instruments, not products; error rates are still brutal; the date for a useful machine keeps sliding; the Nobel honors the foundation, not the hype), a fair statement of the other side (for example: the circuit experiment is proven and won a Nobel; it led directly to the qubits in famous quantum computers; governments now treat quantum computing as important infrastructure), and a conclusion that matches the answer.

What Happens When Everyone Scores Your Rockets?



Built from *The Rocket IPO: What Public Markets Do to a Science Project* by Ejin Chung, Science & Technology Editor

Grades 4–8 · About 45 minutes · ★ everyone · ★★ older readers

Name _____

Date _____

1. Before You Read

★ Think of a time you tried something, failed, and tried again. What did failing teach you?

★ Imagine that everyone watched every mistake you made and gave you a score each day. Would you take more chances or fewer? Why?

2. The Short Version

Read this first. Older readers: read the full article too.

When a company "goes public," it sells small pieces of itself, called **shares**, that anyone can buy. This first sale is called an **IPO**. In June 2026, the most famous rocket company went public, in what the article calls the largest IPO ever recorded. Each share has a price that changes all the time, and in its first week the company's price jumped up and down wildly.

Ejin does not cover stock prices. Ejin covers what happens to a group of people when something starts measuring them every single day.

This company became the best in its field by blowing up test rockets on purpose, in public. Its early tries at landing rockets ended in fireballs, again and again. But each crash gave the engineers new information, and now landings are so normal that TV broadcasts cut away from them. Ejin calls this buying knowledge with visible failure.

Here is the worry. Older aerospace companies became very careful, because being judged on short-term numbers punished risky, visible tests. Nothing blew up, but nothing improved either.

Here is the hope. Special voting shares keep the big decisions in the founder's hands, no matter what the price does.

So Ejin's question is: can the company keep exploding test rockets on purpose when every explosion gets a same-day price? Ejin's test is simple. Watch whether the test flights keep sometimes blowing up. The answer will take years.

3. Word Bank

Word	What it means
share	a small piece of a company that people can buy and own
IPO	short for "initial public offering": the first time a company sells its shares to the public
prototype	an early test version of a machine, built to learn from
iterative	improving something step by step: build it, test it, learn, and try again
cautious	careful and unwilling to take risks

★ Use **prototype** in a sentence of your own.

4. Check Your Understanding

★ 1. What does it mean when a company "goes public"?

★ 2. How did the rocket company learn to land its rockets?

○ It got every landing right on the first try. ○ It failed many times and learned from each failure. ○ It stopped testing rockets.

★ 3. Ejin says a rocket explosion can look like a disaster on a stock chart. Why might the same explosion actually be useful to the engineers?

★ 4. In the company's first week, the share price rose and then fell by a lot. What rocket news caused that?

☐ a rocket exploded ☐ a new rocket launched ☐ no rocket news at all

★★ 5. Ejin describes a worried (pessimist's) view and a hopeful (optimist's) view of what will happen to the company. Explain each view in your own words.

5. Ejin's Scoreboard: Results, Not Demos

Ejin keeps a public scoreboard. One column shows what the hype promised. The other shows what the data has actually delivered. Find three more claims or promises in the article and fill in the scoreboard. Then mark each one:

- **proven:** the article says the results are in, and it worked.
- **not yet:** testing has started, but the results that could prove it have not arrived.
- **we don't know:** the article says nobody can tell yet, or there is not enough information to decide.

What the hype promised	What has actually been shown so far	Score
<i>Example:</i> Blowing up test rockets on purpose is a good way to learn.	<i>The early landing tries failed in fireballs again and again. Now landings are so routine that broadcasts cut away from them.</i>	proven
		☐ proven ☐ not yet ☐ we don't know
		☐ proven ☐ not yet ☐ we don't know
		☐ proven ☐ not yet ☐ we don't know

★★ Pick one claim you marked "not yet" or "we don't know." What result would move it to "proven"?

6. Think Deeper

★ Ejn describes the company's method as "buying knowledge with visible failure." What does that mean? Give an example of a time a mistake taught you something.

★★ Ejn writes that "organizations optimize what measures them." In other words, people work hardest on whatever they are scored on. Give an example from school or sports, and explain how it connects to the rocket company.

7. Write Your Report

Write a short report answering this question: **Can a rocket company keep blowing up test rockets on purpose now that it sells shares to the public?**

- **My answer:**
- **Reason 1 (from the article):**
- **Reason 2 (from the article):**
- **One thing the other side would say:**
- **My conclusion:**

For Teachers and Parents: Answer Key

Word bank sentence: Answers vary; check that the student uses prototype to mean an early test version of something, built to learn from.

1. The company sells shares (small pieces of itself) to the public for the first time, so anyone can buy them.
2. It failed many times and learned from each failure.
3. Each explosion gives the engineers data. The data adds up over time, and that is how the company made rocket landings routine.
4. No rocket news at all. Nothing about the rockets changed during that week.
5. Pessimist: older aerospace companies became cautious because short-term measurement punished visible risk, so the same thing may eventually happen to this company. Optimist: special voting shares keep decisions with the founder, so the stock price cannot control how the engineers work.

Scoreboard (sample answers):

Claim	Shown so far	Score
The company will keep testing boldly now that it is public.	The article says "grades take years."	not yet
Special voting shares will protect the engineering culture from the stock price.	The price swung with no rocket news; the article does not say whether the company's work pace changed.	not yet or we don't know
Becoming public will make the company cautious, like older aerospace companies.	That happened to older companies, but it is too early to tell for this one.	we don't know
A stock chart shows how good the rockets are.	The price soared and slid while nothing about the rockets changed.	we don't know (accept answers saying the first week argues against it)

Accept "not yet" or "we don't know" for any claim about the company's future if the student explains that the results will take years. Only the learn-by-failing method is "proven." **Follow-up:** the test flights keep sometimes blowing up and the company keeps sharing its failures, year after year, while it is public.

Think deeper: Open answers. "Buying knowledge with visible failure" means paying for lessons with failures that everyone can see, like the early landing fireballs that taught engineers how to land rockets. For the ★★ question, strong

answers give a clear example (for example, a team that only counts goals may stop practicing defense) and connect it to the article: if the company is scored by its share price every day, it may start avoiding visible failures, even useful ones.

Report: The best-supported answer is "we don't know yet." Ejin says the scoreboard "opens now" and "grades take years." Look for a clear answer, two reasons taken from the article (for example: older aerospace companies became cautious under short-term measurement; every explosion now gets a same-day price; special voting shares keep decisions with the founder; the price moved with no rocket news), a fair statement of the other side, and a conclusion that matches the answer. Accept "yes" or "no" if the student supports it with the article.