



Dear 6th – 8th Grade Parents and Guardians:

While your students are home, we ask that you continue to partner with us in ensuring ongoing learning. Below is a list of activities we recommend your students complete on a daily basis.



Reading (20 minutes) - if you have access to online resources, your student can log into [Clever](#) to access district resources such as Pearson Realize, Compass Learning, and [Scholastic](#). Please encourage your student to choose stories or articles to read. If you have reading materials at home, feel free to use those as well. After students are done reading, have your students tell you what their article or story was about. Students may also complete hard copy Reading activities as well. Reading packet options are available [here](#).



Writing (30 minutes)- if you have access to online resources, please visit [Scholastic Story Starters](#) (6th grade only), [Story Jumpers](#), or [Story Board That](#) for fun and creative story starters and writing prompts. Have students use these prompts and tools to create their very own story. Students can also write... a story, their feelings, their thoughts about what they are reading, a letter, an information piece about something on which they are an expert. Writing packet options are available [here](#).



Math (30 minutes) - if you have access to online resources, your student can log into [Clever](#) to access Mathia. A Math [scavenger hunt](#) is provided to encourage your student to find the math that is all around them. Visit [IXL](#), [Khan Academy](#), and [Cool Math](#) for practice and fun Math games. Math packet options are available [here](#).



Social Studies (20 minutes) - if you have online access, your student can log into [Clever](#) to access district resources. You will also find articles in both English and Spanish at [Tweentribune](#). Have students to read and complete the quiz. Also visit [Education.com](#), [Newsela](#), and [IXL](#) for interactive Social Studies activities. Social Studies packet options are available [here](#).



Science (20 minutes) - if you have access to online access, your student can log into [Clever](#) to access district resources. Visit [Energy Kids](#) to learn more about energy as well as games and activities. Visit this [Optics 4 Kids](#) to learn about cool optical illusions and visit [Ask a Biologist](#) for virtual field trips and activities. Visit [YouTube videos](#) and [National Geographic Kids](#) to learn more about science. Science packet options are available [here](#).



Exercise (60 minutes a day) - regular exercise and movement is important to do every day. Movement helps you reduce stress, build strong bones and muscles, and helps you to be ready to learn! Try to get 60 minutes of physical activity every day. Visit [GoNoodle](#) for movement videos.



Estimados padres y tutores de 6º a 8º grado:

Mientras sus estudiantes estén en casa, le pedimos que continúe colaborando con nosotros para garantizar un aprendizaje continuo. A continuación, hay una lista de actividades que recomendamos que sus estudiantes completen diariamente.



Lectura (20 minutos) - Si tiene acceso a recursos en línea, su estudiante puede iniciar sesión en [Clever](#) para acceder a recursos del distrito como Pearson Realize, Compass Learning y [Scholastic](#). Por favor anime a su estudiante a elegir historias o artículos para leer. Si tiene materiales de lectura en casa, siéntase libre de usarlos también. Una vez que los alumnos hayan terminado de leer, pídeles que le cuenten de qué se trata su artículo o historia. Los estudiantes también pueden completar actividades de lectura impresas. Las opciones de paquetes de lectura están disponibles [aquí](#).



Escritura (30 minutos)- Si tiene acceso a recursos en línea, visite [Scholastic Story Starters](#) (solo 6th grado), [Story Jumpers](#), o [Story Board That](#) para iniciadores de historias divertidas y creativas y mensajes de escritura. Haga que los estudiantes usen estas indicaciones y herramientas para crear su propia historia. Los estudiantes también pueden escribir ... una historia, sus sentimientos, sus pensamientos sobre lo que están leyendo, una carta, una información sobre algo en lo que son expertos. Las opciones de paquetes de escritura están disponibles [aquí](#).



Matemáticas (30 minutos) - Si tiene acceso a recursos en línea, su estudiante puede iniciar sesión en [Clever](#) para usar Mathia. Una búsqueda de matemáticas se puede encontrar en [scavenger hunt](#) para animar a su estudiante a encontrar las matemáticas que en todo su alrededor. Visite [IXL](#), [Khan Academy](#), y para practicar y divertirse con juegos matemáticos. Las opciones de paquetes matemáticos están disponibles [aquí](#).



Estudios sociales (20 minutos) - Si tienen acceso en línea, su estudiante puede iniciar sesión en [Clever](#) para acceder los recursos. Encontrarán artículos en inglés y español en [Tweentribune](#). Los estudiantes pueden leer y contestar las preguntas aquí. También visite [Education.com](#), [Newsela](#), y [IXL](#) para actividades interactivas. Las opciones de paquetes de estudios sociales están disponibles [aquí](#).










Ciencias (20 minutos) - Si tiene acceso a recursos en línea, su estudiante puede iniciar sesión en [Clever](#) para acceder los recursos. Visite [Energy Kids](#) para aprender más sobre energía, juegos y actividades. Visite [Optics for Kids](#) para aprender sobre ilusiones ópticas geniales y otras actividades. Visite [Ask a Biologist](#) para excursiones virtuales y actividades. Visite [YouTube videos](#) y [National Geographic Kids](#) para aprender más de ciencias. Las opciones de paquetes de ciencias están disponibles [aquí](#).










Ejercicio (60 minutos diarios) - es importante hacer ejercicio y movimiento regularmente todos los días. ¡El movimiento te ayuda a reducir el estrés, desarrollar huesos y músculos fuertes, y te ayuda a estar listo para aprender! Intente realizar 60 minutos de actividad física todos los días. Visite [GoNoodle](#) para videos de movimiento.










<p>Access these programs from Clever at https://www.clever.com/in/maywood89</p>	
	Lexia Core 5 has literacy activities with tracked progress and customized lessons. K-5; App available
	Raz-Kids has online leveled books from basic to advanced. Students can record themselves and take quizzes. K-5; English and Spanish; App available
	Imagine Español has Spanish literacy activities with tracked progress and customized lessons. K-3; Spanish
	Imagine Math has math activities with tracked progress and customized lessons. K-5
	Wonders/Maravillas includes literature, vocabulary, writing, and grammar activities K-5; English and Spanish; App available (separate sign-in required—email teacher if needed)
	World Book A world of learning at your fingertips. Explore important people, animals, maps, science, and activities. K-8; English and Spanish
	Edgenuity Pathblazer includes Math and Reading activities linked to standards. K-8; Limited School Access

If you need login assistance with login information, contact your teacher through [email](#).






Additional Resource Links






Reading	
	https://classroommagazines.scholastic.com/support/learnathome.html Choose books, videos, and activities by grade levels
	https://www.thespanishexperiment.com/stories Children's stories in Spanish
	https://www.storylineonline.net/ Actors and Actresses read books with illustrations
	https://www.getepic.com/ 1000's of award winning books. English and Spanish Signup required, free 30 days
	https://newsela.com/ English; https://newsela.com/rules/spanish Spanish News articles written for students with quizzes and writing prompts for 3-8; English and Spanish
	https://www.tweentribune.com/ Informational text at different grade levels
	https://stories.audible.com/start-listen Free audiobooks for PreK-High school students



Online Magazines	
	Time for Kids http://www.timeforkids.com
	Scholastic News http://magazines.scholastic.com English https://classroommagazines.scholastic.com/spanish.html Spanish
	Highlights Kids https://www.highlightskids.com/
	Sport Illustrated Kids http://www.sikids.com
	National Geographic Kids http://kids.nationalgeographic.com



Writing	
	http://www.scholastic.com/teachers/story-starters/index.html Story Starter ideas by grade level
	https://www.storyboardthat.com/ Digital story telling with backgrounds, characters, and text


Dual Language	
	https://l2trec.utah.edu/news/utahdliathome/spanish.php Spanish and Dual language activities and resources

Math	
	https://www.coolmath4kids.com/ K-5 Math games, lessons, brainteasers
	https://minds-in-bloom.com/math-scavenger-hun/ K-5 Math scavenger hunt ideas
	https://www.khanacademy.org/math K-8 Practice early math through grade 8
	https://www.ixl.com/ K-8 Practice early math through grade 8
	https://www.mathgames.com/math-games.html K-8 math games by grade and topic

Science and Social Studies	
	BrainPop Jr https://jr.brainpop.com BrainPOP Español https://esp.brainpop.com BrainPop https://www.brainpop.com/ BrainPopELL https://ell.brainpop.com Animated educational videos and activities on many school topics K-8; App available (Username: district89; Password: brainpop2)
	https://www.eia.gov/kids/ Information and games about energy
	https://www.optics4kids.org/illusions Optical illusions
	https://blockly.games/ Programming games for kids
	https://www.education.com/activity/social-studies/ Social Studies activities by grade level

Health	
	https://www.gonoodle.com/ Movement and mindfulness videos
	https://aha-nflplay60.discoveryeducation.com/families Fun activities, videos, and virtual field trips

Art/Music	
	http://www.maywoodfinearts.org/?page_id=3043 Take an online class with Maywood Fine Arts
	https://colormandala.com/ Color mandelas online

For Parents	
	http://www.parenttoolkit.com/ English; http://www.parenttoolkit.com/home?lang=es Spanish Age level guides for academic, health, social emotional topics and video parenting guides English and Spanish

Virtual Field Trips/Tours

Use Google Earth to explore our National Parks.

[Badlands National Park](#)

[Death Valley National Park](#)

[Denali National Park](#)

[Everglades National Park](#)

[Glacier National Park](#)

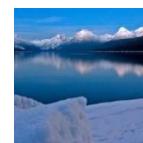
[Grand Canyon National Park](#)

[Great Smoky Mountain National Park](#)

[Redwood National and State Parks](#)

[Rocky Mountain National Park](#)

[Yellowstone National Park](#)



Lesson ideas:

Choose a National Park. Record your observations, then choose to create one of the following:

- Design a travel brochure
- Write a newspaper article to describe the location and encourage travel there
- Create a map that shows the location of the national park

Zoos and Web Cams - Observe various zoo animals through web cams.

[Smithsonian's National Zoo](#)

[San Diego Zoo](#)

[Animal Planet Live](#)

[National Aquarium](#): Black Tip Reef Sharks, Jellies, and Pacific Coral Reef Live

[Seattle Aquarium](#): YouTube virtual field trip and lesson

[Seattle Aquarium Live Cams](#)



Lesson ideas:

Visit and observe an animal of your choice. Complete one of the following:

- Observe the animal for one week. Record these observations and then write a journal about the animal and its habits.
- Create an informative poster about the animal.
- Describe the animal's habitat.

[Planetarium](#) - Explore over 60,000 stars, locate planets, and watch sunrises and solar eclipses. If you enter your location, and you can see all the constellations that are visible in the night sky in your corner of the world.

[NASA Commercial Crew Virtual Tours](#) - YouTube series containing virtual tours of training facilities. Learn how the astronauts train for space travel and life aboard the International Space Station.

[Smithsonian Latino Center](#) - Features live broadcasts of Latina writers and virtual exhibits around latino cultures. Includes a Latino Virtual Museum Bilingual Teacher Training Took Kit that is now available online and via iTunes U.

Tour various locations from around the world.

[The Great Wall of China](#)

[Pompeii](#)

[Ellis Island](#) - this site also includes some additional activities

Lesson ideas:

Write a journal entry from about a journey to this location.

Create a travel brochure.

Take a trip to Walt Disney World and go on a virtual ride of some of Disney's famous attractions.

[Space Mountain](#)

[Splash Mountain](#)

[Test Track](#)

[Expedition Everest](#)

[Rock n Roller Coaster](#)

[Soarin'](#)

[Seven Dwarfs Mine Train](#)

[Rise of the Resistance](#)

[Mickey and Minnie's Runaway Railway](#)

[Slinky Dog Dash](#)

[Millenium Falcon/ Smuggler's Run](#)



Student eLearning Activities Log Week 5 – April 21 - 24

Student Name _____ Grade _____

Teacher _____

Please write the activities you completed each day.

	Monday	Tuesday	Wednesday	Thursday	Friday
Example:		Reading packet Math packet Raz-Kids Art Imagine Math	Imagine Math Writing Virtual Tour Read a book Jumped Rope/Burpees	Imagine Math Reading packet Math packet Social Studies Music YouTube exercise video	Imagine Math Reading packet Math packet Art project Science experiment Raz-Kids Lexia
Activities/ Assignments					

Parent Signature _____ Date _____

Registro de actividades de aprendizaje electrónico semana 5 del 21 de abril al 24 de abril

Nombre _____ Grado _____

Maestro/a _____

Por favor escribe las actividades que completaste cada día.

	lunes	martes	miércoles	jueves	viernes
Ejemplo:		Paquete de lectura Paquete de matemáticas Raz-Kids Arte Imagine Math Lexía	Imagine Math Escritura Paseo Virtual Leer un libro Brincar la cuerda/sentadillas lexía	Imagine Math Paquete de lectura Paquete de matemáticas Estudios Social Video YouTube de ejercicio	Imagine Math Paquete de lectura Paquete de matemáticas Arte Experimento de Ciencia Raz-Kids Lexía
Actividades/ Tareas					

Firma de Padres _____ Fecha _____

6th

Literary Analysis: Fables and Folk Tales

Practice

Fables and folk tales are stories. **Fables** teach a simple lesson, known as a moral. Fables often feature animal characters that act almost human. **Folk tales** are stories that involve adventure, heroes or heroines, magic, and lessons about good and evil.

Fable	Folk Tale
Has a lesson known as a moral Features animals that act human	Involves an adventure Has heroes or heroines Involves magic Has lessons about good and evil

A Read the following fable. Then, answer the questions.

One summer day, Grasshopper was singing to his heart's content. Ant passed by, carrying a heavy ear of corn to his nest.

"Why not enjoy life," said Grasshopper, "instead of working so hard?"

"I am saving food for the winter," said Ant, "and you should, too."

When the winter came, Grasshopper had no food and was dying of hunger, while all of the ants ate the corn and grain they had collected during the summer. Grasshopper's lack of planning was the end of him.

1. Who are the main characters in this fable? _____
2. What is the moral of the fable?

B The following passage is the beginning of a folk tale. Read it. Then, answer the questions.

A young woman went searching for her husband. He had gone on a long hunting trip and had not returned. She paddled her canoe into rough waters, and it hurtled toward a great waterfall. But Heno, the god of thunder, caught the young woman in his arms and carried her to his home beneath the pounding water.

1. What is adventurous about the folk tale? _____
2. What elements of magic are in the folk tale? _____

Literary Analysis: Fables and Folk Tales**Assess****A** Read the following fable. Then, answer the questions.

The Hare bragged about his great speed. "I always win the races I run! I challenge anyone to try to beat me."

The Tortoise said quietly, "I accept your challenge."

The great race began, and the other animals cheered. The Hare darted off immediately. He ran so far ahead of the Tortoise that he decided to lie down and nap. The Tortoise kept on going at his own slow pace. When the Hare finally awakened, he realized that he had slept too long. The Tortoise was crossing the finish line.

1. Who are the main characters in this fable? _____
2. How would you describe the good or bad qualities of each character?

3. What is the moral of the fable? _____

B The following passage is the beginning of a folk tale. Read it. Then, answer the questions.

Long ago there lived a woodcutter and his wife. One morning the wife saw a peach in the river and brought it home. Just as she gave her husband the peach, it split in two, and out came a beautiful baby. The couple named him Pit and raised him as their own son. He grew up to be strong and brave. When the evil ogres threatened to raid his parents' village, Pit decided to stop them.

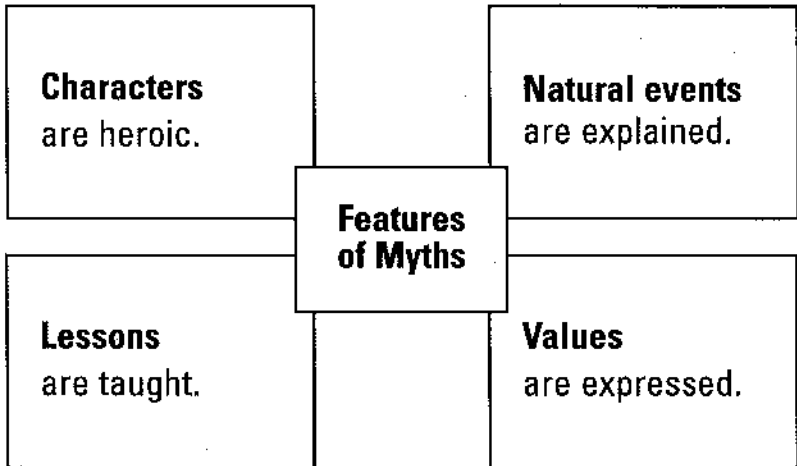
1. What is adventurous about the folk tale? _____
2. What qualities do the main characters possess? _____

3. What elements of magic does the folk tale contain? _____

Literary Analysis: Myths

Practice

Myths are stories that describe the actions of ancient heroes and gods. Every culture has myths that tell interesting tales, explain events, teach lessons, and express values.



Answer the question that follows each sentence below.

1. A myth describes a young man named Legardo, who enters the cave of a fire-breathing dragon.
Why is Legardo a hero? _____
2. The people of the valley fear the dragon because the monster has prevented the rains from falling for three months.
What characteristic of a myth is shown in this statement? _____

3. Legardo is willing to risk his life to defeat the dragon so that his people might be saved.
What value is expressed in this statement? _____
4. Years later, the people of the valley tell stories about Legardo's great deeds.
What lesson is taught by this myth? _____

Literary Analysis: Myths**Assess****A** Answer the question that follows each sentence below.

1. A myth describes a young woman named Persia who has been permitted to go into the realm of the gods because of her great skill with a knife.

What characteristic of a myth is shown in this statement? _____

2. Persia is able to use her knife to slice through great tree trunks to create wood for fire.

What characteristic of a myth is shown in this statement? _____

3. Persia enjoys being among the gods, but her heart is in pain, because she had to leave her family behind her.

What value is expressed in this statement? _____

4. Stories are told by Persia's family about how she was willing to leave her home so that there would be enough heat and cooking fuel in her village.

What lesson is taught by this myth? _____

B Read the myth below. Describe at least two elements that help you know that the story is a myth.

In the forest lived a young man named Mun, who befriended animals and all living things. He spoke their language, and they understood him.

One day, a gigantic beast charged into the forest, crushing branches and small trees beneath him. Mun heard the cries of the branches as they were ripped and torn. He rushed to the other forest creatures and asked for their help.

Together, Mun and the forest creatures threw so many rocks at the beast that he turned and ran away. Then Mun and his friends blocked off the forest's entrance with large boulders to keep other invaders out.

Literary Analysis: Fantasy

Practice

Fantasy is writing in which the writer uses his or her imagination to introduce characters, situations, or events that cannot exist or occur in real life. Many fantastic stories contain some **realistic** elements.

Sample Fantasy This morning, space aliens speaking English dropped by for a barbecue. After everyone ate, we all played a game of catch. Then we sat together to watch the the stars as they appeared in the morning sky.

Elements of Fantasy Not Found in Real Life

- space aliens speaking English
- stars appearing in the sky in the morning

Elements of Fantasy Found in Real Life

- characters having a barbecue
- characters playing catch and sitting together

A Write *Fantasy* in the blank before each item that describes a situation in a work of literature that is not found in real life. Write *Reality* in the blank before each item that describes a situation that is found in real life.

1. _____ A character is named Barnaby the Talking Dog.
2. _____ A character is named Barnaby Smith.
3. _____ A narrator travels back in time and talks to Abraham Lincoln.
4. _____ A writer describes the presidency of Abraham Lincoln.

B Read this story. Then, list at least two elements of fantasy and two elements of reality. Think of actions, characters, events, and situations that seem either unreal or real.

I knew as soon as I entered the room that something was different. It wasn't the walls made of cheese, the cotton-candy pillows, or the gingerbread man sitting at the kitchen table. No, it was Marie—for some reason, she was angry with me.

Elements of Fantasy: _____

Elements of Reality: _____

Literary Analysis: Fantasy**Assess**

A Write *Fantasy* in the blank before each item that describes a situation in a story that would not be found in real life. Write *Reality* in the blank before each item that describes a situation in a story that may be found in real life.

1. _____ Two characters are astronauts who take a trip to the moon.
2. _____ Two characters are brothers who take a vacation on the moon.
3. _____ A narrator tells of her experiences studying gorillas and monkeys in the African jungle.
4. _____ A narrator tells of her experiences studying gorillas and monkeys that can sing songs from a famous opera.
5. _____ Two characters, a king and a queen, tell all of the people in their country that the next day will be a special holiday for everyone.
6. _____ Two characters, a king and a queen, tell all of the people in their country that the next day the moon will turn blue for twelve hours.
7. _____ A man discovers he can fly.
8. _____ A man discovers a new medicine.

B Read the story below. Then, list an element of fantasy and an element of reality. Think of actions, characters, events, and situations that seem either unreal or real.

Yesterday, I poured several buckets of cold water onto my kitchen floor and opened all the windows. I put on my blue ice skates and waited while the water froze. Then I skated all around my kitchen, gliding from one side to another. When I got tired of skating, I went outside for a walk.

Element of Fantasy: _____

Element of Reality: _____

Answer Key

Literary Analysis: Fables and Folk Tales

Practice, p. 240

- A** 1. a grasshopper and an ant
2. Sample answers: Planning is important.

B Sample answers: 1. Taking the canoe into the rough waters is adventurous. 2. Heno is a god and has supernatural powers.

Assess, p. 241

1. the hare and the tortoise
2. The hare's bad quality is that he brags; the tortoise's good quality is that he is patient.
3. Sample answers: It is important to keep trying; victories should not be taken for granted.

B Sample answers:

1. A young man sets out to fight ogres.
2. Pit is strong and brave; the parents are kind and good; the ogres are evil. 3. The child is "born" from a peach.

Literary Analysis: Myths

Practice, p. 242

Sample answers:

1. He is willing to enter the cave of a firebreathing dragon.
2. The monster is mythical; a creature could not prevent rain.
3. The statement expresses the value of selfsacrifice to save others' lives.
4. The lesson taught is that great deeds live on, and people can learn from them

Assess, p. 243 Sample answers:

- A** 1. A human can enter the gods' realm.
2. Persia does something that seems impossible.
3. The value of family ties is expressed.
4. The lesson is taught that Persia has sacrificed her happiness for the needs of others.

Answer Key

B Sample answer: Mun can speak and understand the language of the animals and plants in the forest; the forest has an entrance.

Literary Analysis: Fantasy

Practice, p. 244

A 1. Fantasy; 2. Reality; 3. Fantasy; 4. Reality

B Sample answers: Elements of Fantasy: the walls made of cheese; the cotton-candy pillows; the gingerbread man sitting at the kitchen table

Elements of Reality: going into a room and thinking something is different; one character being angry with another

Assess, p. 245

A 1. Reality; 2. Fantasy; 3. Reality; 4. Fantasy; 5. Reality; 6. Fantasy; 7. Fantasy; 8. Reality

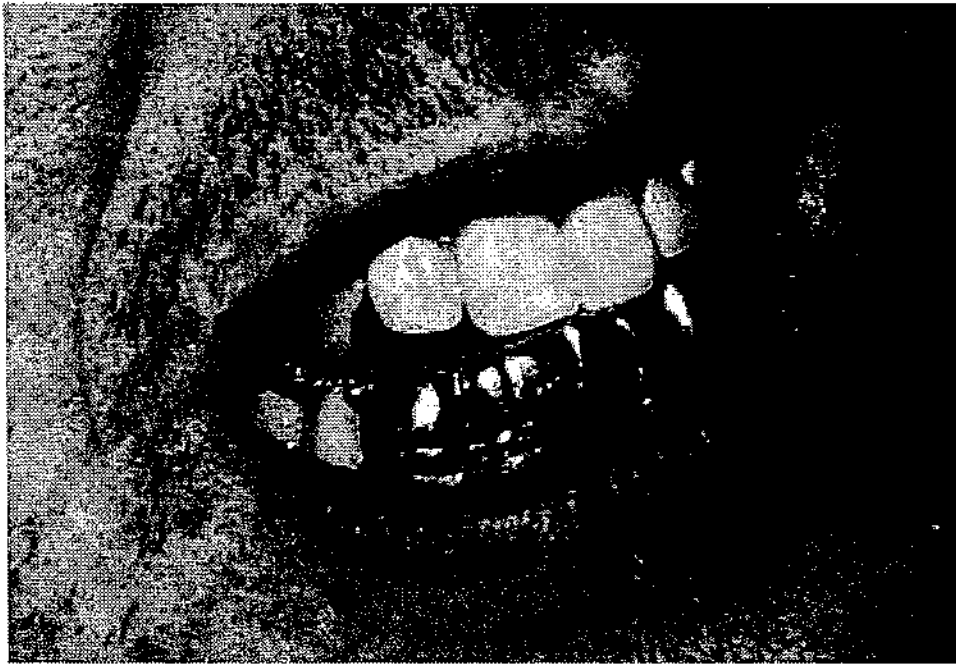
B Sample answers:

Elements of Fantasy: water that freezes on a floor; ice-skating on a kitchen floor

Elements of Reality: opening the windows in a kitchen; putting on ice skates; going outside for a walk

Practice Makes Perfect

by ReadWorks



Look around you. Most of the objects you interact with every day are the result of hundreds of years of tinkering. Your table is the way it is because someone thought they could make a better table than the ones that already existed. Your chair is how it is because someone had the idea to improve upon a previous version of a chair, taking some bits and leaving others behind. Your shirt, your telephone, all the result of someone (or a team of "someones") setting their minds to a particular design task, and working hard until they got the thing they set out to make.

This process of imagining something and then building version after version until you get it *just right* is called "iterative design." The term "iterative" refers to the different versions-or "iterations"-of a thing you produce on the way to making the right version. It is admitting, ahead of time, that you probably aren't going to get it right the first time. Rather, you know that designing something really great is going to take lots of tries. And you're committed to doing it over and over until you get it right.

Aisen Caro Chacin is very familiar with this process. When she was a student in a technology program at a design school in New York City, she had an unusual idea for her thesis project. She wanted to make a device you could wear in your mouth through which you could listen to music. She knew it would take many tries to get it just right.

She imagined the device as a cross between a video game controller, a stereo, and a "grill"-a kind of mouth jewelry. The device worked by using a small motor to vibrate the wearer's teeth-a process known as bone conduction, which, in this case, means the teeth and facial bones carry or "conduct" the sound. It looked like a mouth guard with a video game controller's directional pad: the plus-shaped part of a controller that moves up, down, left or right. She called her creation, "The Play-a-Grill."

There were many unanswered questions. What was the best way to assemble the device? How would a wearer control it? How big could it be? Chacin began her design process with that last question. She devised a simple test to determine how much room a person has, on average, on the roof of their mouth. She gave them as much gum as they could possibly fit onto the roof of their mouths, and had them spit the gum out, preserving its shape as much as possible. Taking that shape into account, she made a mold of the wearer's teeth using the same technique as dentists.

She then poured hot glue into the mold, and heated it to let it take its shape. She remembers with a laugh describing this dangerous, time-consuming, and decidedly low-budget process later to a horrified technology journalist. "He was like, 'uh, wait, what?'" she says. "It's not a material that's made for being inside the mouth for long periods of time." It was also bulky and uncomfortable. This first version connected to an audio source through a traditional headphone jack.

"The first version," she said, "was basically just to test the technology." Could a device like a mouthpiece made out of glue actually vibrate and let a wearer hear sound? As it turned out, it could. With one successful test under her belt, Chacin set about a major aesthetic and practical overhaul.

For the second version, Chacin changed virtually all of the grill's features. She used a different material to construct the grill itself, the same substance used to make tooth-whitening mouth guards. This made it more streamlined and comfortable. She added a microchip to the base of the device, so that it was self-contained. She also attached the directional pad to the part of the grill that covers the palate, which allows the wearer to control the volume of the music, as well as skip songs. She also made part of the front out of silver, to give it a classic jeweled aesthetic.

While this version was much more successful, Chacin knew it could be improved upon further. In her next version, she tried to improve the user interface, making it easier for a user to press the tongue controls. "You can apply more pressure with a finger than you can with the tongue." She also further refined the aesthetic, adding the word "TECH" in capital letters to the front.

Three versions and roughly three years from beginning her process, Chacin is still far from satisfied with her product, and plans to further refine several major areas in future iterations. The first is the electronics, the second are the motors, and the third is the Play-a-Grill's overall aesthetics.

Even in its latest iteration, Chacin acknowledges, the Play-a-Grill is too bulky. The primary reason for this is the electronics. Namely, the components which control the storage and playback of the MP3s, as well as the user tongue controls are too large, much larger than they would be in the final, consumer-focused iteration of the Play-a-Grill. "I probably need to get into a clean room to really get them small enough," Chacin says, referring to the static and (at least theoretically) dirt-free rooms staffed by scientists in hazmat suits that most professional electronics companies use to produce today's highly compact personal electronics. Until she can access a truly professional-grade facility like this, she feels her product won't be as advanced as it could be. She would also like to add a more professional grade lithium battery to her device. While it *does* currently contain a lithium battery (the same kind used in devices like pacemakers which are implanted in the body), it is consumer grade, and not the kind used by professional implant producers.

Chacin also wants to further refine the motors the Play-a-Grill uses. Again, the motors produce the vibrations that the wearer eventually perceives as music. In the first version, she used one motor. In the second and third, she used two, figuring this would produce a proportional increase in the volume and quality of the sound. This, as it turns out, was not the case.

"The new motors weren't as good of quality as the first one (I had changed the type of motor)," she explains, "and so I think that the first one worked better. It's a process! You think, 'Okay, let's change the design to make it more comfortable, this seems like it would work.' But then the component itself might not be as strong. And even though I added an amplifier to it, it still wasn't as good."

Finally, Chacin wants to improve the device's aesthetics. "The silver front of the actual grill, I chose not to do in silver, for the most recent version," she said. "I think that was kind of a mistake. It kind of took away from that rapper culture aesthetic the other one had."

While she may not be entirely satisfied, Chacin should be proud of what she's accomplished. She's gone from a relatively out-there idea—a piece of mouth jewelry that plays music by vibrating your skull—and turned it into a reality. Her device has been written about many times in the press, and featured on television. She's done this through hard work, and demonstrating a willingness to always go back to her piece and try again.

In making version after version of a device to get closer to a final thing she's happy with, Chacin is doing her work like countless other designers before her. Rockets, racecars, and smartphones were all designed in the same way. There's often no real way to get a true sense of how a design will perform without building and testing it. So, that is what people like Chacin have been doing for hundreds of years. Having an idea, building a version, testing it out, and seeing how it goes.

refine re fine

Advanced Definition

transitive verb

1. to make pure or less coarse by removing unwanted elements.

Raw cane juice is refined to make sugar.

Wheat is refined by removing the natural bran surrounding the kernel.

2. to bring to a more polished, elegant, or cultured state.

If you want to fit in with her family, you'll have to refine your table manners.

3. of writing or speaking, to make clearer or more sophisticated through precision, subtlety, or elegance of wording.

This is just the first draft of my essay; I'm planning to refine it.

intransitive verb

1. to make subtle or precise distinctions in language or thought.

Spanish cognate

refinar: The Spanish word *refinar* means refine.

These are some examples of how the word or forms of the word are used:

1. Once a mine is dug, the gold must be extracted from the ground, separated from the ore, and then **refined** into pure gold.
2. By continuously picking out the plants that had the biggest corncobs, the farmers continued to **refine** the plants. Today, a corn plant that offers the healthy, edible corncob is the most recognizable corn plant.
3. Because silicon is abundant in Earth's crust, most solar products are made from it. But silicon needs to be **refined** and treated to be useful.

version ver sion

Definition

noun

1. a particular form of something.

We saw the film version of the story after we read the book.

2. a description or report from one point of view.

John's version of the accident is different from Laura's.

Advanced Definition

noun

1. a description or report in a particular style or from one point of view.

His version of what happened was quite different from hers.

2. a particular form or adaptation of something.

The film version of the story was beautiful but missing many of the details of the book.

3. a translation into another language.

She carried with her a Korean version of the book.

Spanish cognate

versión: The Spanish word *versión* means version.

These are some examples of how the word or forms of the word are used:

1. It was not until the mid-1980s that Instant Messaging started to become more like today's **version**.
2. Some schools in Massachusetts, Maine, Maryland, New York, Virginia, Texas, and Utah have already banned dodgeball or **versions** of the game.
3. For their trek to the moon, astronauts will travel aboard the new Orion crew exploration vehicle, which is being developed. The vehicle, a modernized **version** of the Apollo craft, will attach to a lunar lander.
4. In order to get a game of baseball going without having all of the required items, New York City kids, almost all of whom were boys, created their own **version** of baseball, one that would be played on the hard, concrete streets.
5. How do we know that their bright and beautiful coloring reveals that they are poisonous? Well, what we think of as butterflies are the adult **versions** of caterpillars. As caterpillars, monarchs feed on milkweed, which contains a toxin that is poisonous to most vertebrates but not to monarch caterpillars.

Name: _____ Date: _____

1. What is "iterative design"?

- A. the process of building the same design over and over without any changes
- B. building a product once and getting the design right on the first try
- C. when multiple designers build a product and compete for the best design
- D. the process of building versions of a product until the design is perfect

2. The passage describes the sequence of steps Chacin took to design The Play-a-Grill. What happened after Chacin came up with the idea for The Play-a-Grill?

- A. She determined how big the device could be.
- B. She determined the best way to assemble the device.
- C. She determined how the wearer would control the device.
- D. She determined the best motor to use for bone conduction.

3. Chacin did not initially have a large budget for The Play-a-Grill.

What evidence from the text best supports this conclusion?

- A. The first model was bulky and uncomfortable.
- B. The first model was used to test the technology.
- C. The first model was made out of glue.
- D. The first model let a wearer hear sound.

4. "You can apply more pressure with a finger than you can with a tongue."

What can be inferred about the tongue controls for the second iteration of The Play-a-Grill?

- A. They were too small to press.
- B. They were hard to press with the tongue.
- C. They were unintuitive to use.
- D. They were hard to reach.

5. What is this passage mainly about?

- A. the iterative process Chacin used to design The Play-a-Grill
- B. the role of mouth jewelry in rap culture
- C. technological advances that made The Play-a-Grill possible
- D. Chacin's experience at a New York design school

6. Read the following sentences: "Look around you. Most of the objects you interact with every day are the result of hundreds of years of tinkering."

Why does the author begin the passage in this way?

- A. to give the reader an order and establish control
- B. to make the reader understand the importance of everyday objects
- C. to introduce the topic of iterative design
- D. to give the passage historical context

7. Choose the answer that best completes the sentence below.

The Play-a-Grill was not designed all at once, _____ required multiple design iterations.

- A. like
- B. but
- C. finally
- D. particularly

8. What is a "clean room" as defined by the passage?

9. How does Chacin plan to refine The Play-a-Grill in future iterations? Give three examples from the text.

10. Does iterative design present any difficulties or have any flaws as a creative process? If so, what are they? Use information from the text to support your answer.

1. What is "iterative design"?

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8. What is a "clean room" as defined by the passage?

A clean room is a static and dirt-free room staffed by scientists in hazmat suits that is used by professional electronics companies to produce highly compact personal electronics.

9. How does Chacin plan to refine The Play-a-Grill in future iterations? Give three examples from the text.

Students should mention three of the following: Chacin plans to reduce the size of the components that store and control the MP3s, reduce the size of the user tongue controls, add a professional grade lithium battery, refine the motors, and improve the overall aesthetic.

10. Does iterative design present any difficulties or have any flaws as a creative process? If so, what are they? Use information from the text to support your answer.

Iterative design does present difficulties as a creative process. It requires the designer to be tenacious and willing to accept multiple failures before the correct solution is found. It also requires significant amounts of materials, as multiple versions of the same product will need to be created. There is also no guarantee that the design will perform well.

HOW TO USE THIS BOOK

180 Days of Math for Sixth Grade offers teachers and parents a full page of daily mathematics practice activities for each day of the school year.

Easy to Use and Standards-Based

These activities reinforce grade-level skills across a variety of mathematical concepts. The questions are provided as a full practice page, making them easy to prepare and implement as part of a classroom morning routine, at the beginning of each mathematics lesson, or as homework.

Every sixth-grade practice page provides 12 questions, each tied to a specific mathematical concept. Students are given the opportunity for regular practice in each mathematical concept, allowing them to build confidence through these quick standards-based activities.

Question	Mathematics Concept	NCTM Standards
1	Addition or Subtraction	Understands numbers, ways of representing numbers, relationships among numbers, and number systems; Understands the meanings of operations and how they relate to one another; Computes events and makes reasonable estimates
2	Multiplication	
3	Division	
4	Place Value or Number Sense	
5	Fractions, Decimals, and Percents	Works flexibly with fractions, decimals, and percents to solve problems; Compares and orders fractions, decimals, and percents efficiently; Understands the meaning and effects of arithmetic operations with fractions and decimals
6	Order of Operations and Patterns	Understands the meanings of operations and how they relate to one another
7	Algebra and Algebraic Thinking	Understands patterns, relations, and functions; Represents and analyzes mathematical situations and structures using algebraic symbols
8		
9	Measurement	Understands measurable attributes of objects and the units, systems, and processes of measurement; Applies appropriate techniques and formulas to determine measurements
10	Geometry	Uses visualization and spatial reasoning to solve problems; Analyzes characteristics and properties of two- and three-dimensional geometric shapes
11	Data Analysis/Probability	Selects and uses appropriate statistical methods to analyze data; Understands and applies basic concepts of probability
12	Word Problem/Logic Problem or Mathematical Reasoning	Solves problems that arise in mathematics and in other contexts; Applies and adapts a variety of appropriate strategies to solve problems

Standards are listed with the permission of the National Council of Teachers of Mathematics (NCTM). NCTM does not endorse the content or validity of these alignments.

NAME: _____

DIRECTIONS

Solve each problem.

1. Find the sum of 257 and 64.

2. $10 \cdot 24 =$ _____

3. $9 \overline{)738}$

4. What is the place value of 7 in the number 174,569?

5. Write the improper fraction for $1\frac{2}{3}$.

6. Complete the table. Then write the conversion rule for centimeters to meters.

Centimeter	300	500		900	
Meter	3		7		11

7. Find a . $a + 2 = 10$

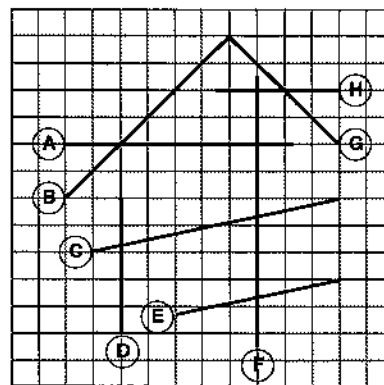
 $a =$ _____

8. Find d . $28d = 56$

 $d =$ _____

9. How many liters are in 5,275 milliliters?

10. Which line segment is perpendicular to lines A and H?



11. Reina counted the number of tickets sold for the school play for 10 nights. What is the range?
20, 26, 19, 24, 19, 28, 22, 18, 24, 24

12. Mai's pencil is 24 cm long. She sharpens it, and it loses $\frac{1}{8}$ of its length. How long is her pencil now?

SCORE

1. (Y) (N)

2. (Y) (N)

3. (Y) (N)

4. (Y) (N)

5. (Y) (N)

6. (Y) (N)

7. (Y) (N)

8. (Y) (N)

9. (Y) (N)

10. (Y) (N)

11. (Y) (N)

12. (Y) (N)

___ / 12

Total

NAME: _____

DIRECTIONS

Solve each problem.

SCORE

1. (Y) (N)

1. $188 - 294 =$ _____

9. What time is two hours before 22:17?

2. (Y) (N)

2. $4 \times 600 =$ _____

3. (Y) (N)

3. What is half of 92? _____

10. What is the name of a triangle with exactly two equal angles?

4. (Y) (N)

4. $40,000 + 9,000 + 60 + 8 =$

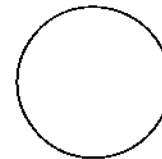
5. (Y) (N)

5. Round 4.8 to the nearest whole number.

6. (Y) (N)

6. $(5^2 - 3) \times 4 =$ _____

11. Draw a spinner that has a 25% probability of landing on green, a 25% probability of landing on orange, and a 50% probability of landing on blue.



7. (Y) (N)

7. 0.10 of is 9.

12. Circle the factors of the given product.

8. (Y) (N)

8. Find e . $2.5e = 100$

$e =$ _____

Possible Factors									Product
6	5	9	4	2	17	3	16	15	105

___ / 12

Total

NAME: _____

DIRECTIONS

Solve each problem.

1. Calculate the sum of 45 and 39.

2.
$$\begin{array}{r} 43 \\ \times 5 \\ \hline \end{array}$$

3. $149 \div 5 =$ _____

4. Round 12,685 to the nearest thousand.

5. Write $4 + \frac{5}{100} + \frac{3}{1000}$ as a decimal.

6. $8 + 9 \times 3 - 1 =$ _____

7. $194 \square 63 = 131$

8. Find k . $k + 73 = 125$

$k =$ _____

9. How many meters are in 8.475 kilometers?

10. How many axes of symmetry does the shape have?



11. Steve, Mark, Melissa, Joe, and Mary are in a group. They randomly line up at the door. What is the probability that a person whose name begins with S lines up first?

12. Mark had twice as much money as Karen. When Mark gave Karen \$10.00, they both had the same amount. How much did Karen have originally?

SCORE

1. (Y) (N)

2. (Y) (N)

3. (Y) (N)

4. (Y) (N)

5. (Y) (N)

6. (Y) (N)

7. (Y) (N)

8. (Y) (N)

9. (Y) (N)

10. (Y) (N)

11. (Y) (N)

12. (Y) (N)

____ / 12

Total

NAME: _____

DIRECTIONS

Solve each problem.

SCORE

1. (Y) (N)

1.
$$\begin{array}{r} 328 \\ - 169 \\ \hline \end{array}$$

2. (Y) (N)

2. $4 \times 40 = \underline{\hspace{2cm}}$

3. (Y) (N)

3. $7 \overline{)95}$

4. (Y) (N)

4. How do you know that 9 is a square number?

5. (Y) (N)

6. (Y) (N)

7. (Y) (N)

5. $\frac{3}{5} - \frac{2}{10} = \underline{\hspace{2cm}}$

8. (Y) (N)

6. $305 \div 5 = 60 + \square$

9. (Y) (N)

7. $\square^2 = 25$

10. (Y) (N)

11. (Y) (N)

8. $7 \times \square = 30 - 9$

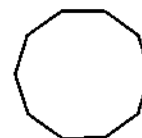
12. (Y) (N)

9. Calculate the average hourly speed when 180 miles are traveled in 4 hours.

___ / 12

Total

10. Complete the chart for the shape.



Name the figure:	
How many sides?	
How many angles?	
Does it have symmetry?	
Is it a plane shape or a solid shape?	

11. Time Spent on Homework

Day	Minutes
Monday	52
Tuesday	45
Wednesday	30
Thursday	45
Friday	0

One-half of the time on Wednesday was spent reading. How many minutes were spent reading on Wednesday?

12. William has a binder with 32 pages in it. Each page holds $4\frac{3}{4}$ baseball cards. If the book is full, how many baseball cards are in the binder?

NAME: _____

DIRECTIONS

Solve each problem.

1. Add 37, 46, and 54.

2. Find the product of 6 and 50.

3. $9 \overline{)171}$

4. What is the ordinal number for twenty?

5. Round 5.1 to the nearest whole number.

6. Insert parenthesis to make the following true.

$$8 + 9 \times 3 - 1 = 50$$

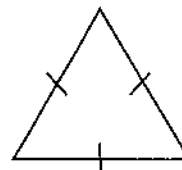
7. $369 \div \square = 123$

8. Find q . $q - 89 = 121$

$$q = \underline{\hspace{2cm}}$$

9. What is the volume of a solid that is 3 m long, 2 m wide, and 4 m tall?

10. Name the triangle.



11. List all possible outcomes you can get when you flip two coins.

12. Mindy saves more than \$12.70 each week. In five weeks, could she save \$61.50, \$63.00, \$62.90, or \$64.20?

SCORE

1. (Y) (N)

2. (Y) (N)

3. (Y) (N)

4. (Y) (N)

5. (Y) (N)

6. (Y) (N)

7. (Y) (N)

8. (Y) (N)

9. (Y) (N)

10. (Y) (N)

11. (Y) (N)

12. (Y) (N)

____ / 12

Total

ANSWER KEY *(cont.)*

Day 119

- 75
- 335
- 29
- yes
- $\frac{3}{10}$
- 13
- +
- $7x - 63$
- 750 cm^3
- yes
- 14.3 points
- 10 cubes

Day 120

- 38
- 730
- $9\frac{17}{20}$ or 9.85
- 87,642
- 6% should be circled.
- 957
- 7
- 4
- 4,700 g
- greater than
- \$15.75
- 39 bottles

Day 121

- 321
- 240
- 82
- ten thousands
- $\frac{5}{3}$
-

Centimeter	300	500	700	900	1,100
Meter	3	5	7	9	11


Rule: Divide centimeters by 100 to convert to meters.

- 8
- 2
- 5.275 liters
- line F
- 10
- 21 cm

Day 122

- 106
- 2,400
- 46
- 49,068
- 5
- 88
- 90
- 40
- 20:17
- isosceles triangle
- $\frac{1}{2}$ blue, $\frac{1}{4}$ green, $\frac{1}{4}$ orange
- 5, 3, 15

Day 123

- 84
- 215
- $29\frac{4}{5}$ or 29.8
- 13,000
- 4.053
- 34
-
- 52
- 8,475 m
-  1 lines of symmetry
- $\frac{1}{5}$
- \$20

Day 124

- 159
- 160
- $13\frac{4}{7}$
- The product of an integer (3 or -3) and itself equals 9.
- $\frac{4}{10}$ or $\frac{2}{5}$
- 1
- 5
- 3
- 45 mph
- decagon; 10; 10; yes; plane shape
- 15 minutes
- 96 cards

Day 125

- 137
- 300
- 19
- 20th
- 5
- $(8 + 9) \times 3 - 1 = 50$
- 3
- 210
- 24 m^3
- equilateral triangle
- heads and tails; heads and heads; tails and tails
- \$64.20

Day 126

- 168
- 240
- $82\frac{4}{5}$ or 82.8
- less than
- $12\frac{95}{100}$ or $12\frac{19}{20}$
- $8 + 9 \times (3 - 1) = 26$
- 5
- 10
- 4.5 cm^2
- pentagon
- Spinner B
- 300 feet

Day 127

- 140
- 85
- 91
- 1, 2, 4, 7, 8, 14, 28, 56
- 60
- 44
- 90
- 147
- 18:58
- 5 faces
- $\frac{5}{7}$
- 17 chickens

Day 128

- 45
- 468
- $47\frac{1}{6}$
- 3^3
- 4
- $7 \times (8 - 4) \times 3 = 84$
- 872
- 8 or -8
- 110 miles
- 360°
- 251 and 722
- 3,101

Day 129

- 78
- 800
- $87\frac{8}{9}$
- 8, 16, 24, 32, 40
- $2\frac{38}{100}$ or $2\frac{19}{50}$
- 4
- 3
- $96 - 12n$
- 350 cm^3
- no
- 24 cookies
-

	Faces	Edges	Vertices
Octagonal Pyramid	9	16	9
Octagonal Prism	10	24	16

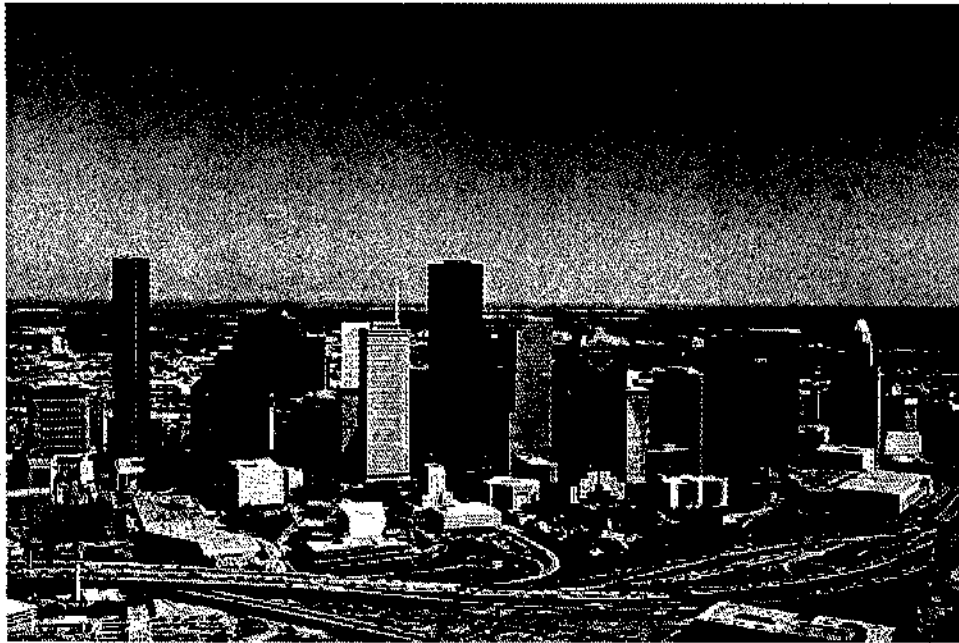
Day 130

- 185
- 145
- $47\frac{1}{2}$ or 47.5
- 6 digits
- $\frac{7}{10}$
- 2,025
- 900
- $17s$ or $17 \times s$
- 250 grams
- 81 degrees
- 31
-

13	8	10	7
14	3	17	4
9	12	6	11
2	15	5	16

Predicting the Future

by ReadWorks



Houston, Texas

Garry Golden sits in a small cafe in Brooklyn, New York. In front of him, sheets of paper with diagrams litter the table. He rapidly sketches trains, cars and highways as he explains his ideas. Garry Golden has one passion: transportation. The science of how to move people from place to place fascinates him. He spends his days studying the relationships between cars, subways, and trains. But he's most excited about imagining the way these relationships will change in the next 20 years.

Golden is a futurist. Futurists are scientists who analyze the way the world is today and use that information to make predictions about what the world will be like in the future. In this way, they are the opposite of historians, who try to better understand the present through studying the past. Futurists hope that by making scientific predictions about the future, we can make better decisions today.

Some futurists study the environment. Some study human society. Golden focuses on the study of transportation. He earned his graduate degree in Future Studies from the University of Houston. Living in Houston for those two years changed the way he viewed transportation in the United States.

Many public transportation advocates dislike Houston. They argue the city is too sprawling (it can take more than three hours to drive from one side of the city to the other during rush hour) and that there aren't enough buses and subways. However, Houston was a source of inspiration for Golden.

"Houston is a really interesting place, and their transportation is a fascinating story—it's worth watching. When you think about it, what is the U.S. like? It's more like Houston. So you need to understand how Houston approaches things to understand the country as a whole. New York City is the exception," said Golden in an interview with *The New York Times*.

Golden points out that people in New York City own fewer cars and walk much more than anywhere else in the United States. "It's a unique environment," says Golden. "Very different from the rest of the country."

However, Golden believes American cities will become more similar to New York City in several ways over the next 20 years. He sees a trend toward fewer cars in the future. He explains, "Cities have a cost of car ownership that is a challenge. All these vehicles cost the city: in services, in having to repair roads and all of the other things." Cars also take up a lot of space. Houston, for example, has 30 parking spaces for every resident. That's 64.8 million parking spaces in only one city.

Golden points out that having so many parking spaces is inefficient. Much of the time the parking spaces sit empty. At high-use times—for example, Saturday afternoon when everyone is running errands—every parking space at a shopping center is full. But at 3 a.m. on a Monday, no one is at the shopping center. What is the solution? "I think cities are going to start to legislate cars in very new ways," says Golden. He explains that cities will make new laws to limit the number of cars people can have within city limits. Instead, people will use taxis, subways and buses. New technology, like smartphones, can make these forms of public transportation even better.

Buses have the same problem of inefficiency as parking spaces, explains Golden. Sometimes they are full, and sometimes they are empty. But imagine if everyone had a smartphone and used them to signal when they wanted to ride the bus. Buses could change their route, depending on who wanted to ride.

How soon would these changes come? Golden admits that it will take several years. Cities can be slow to change. Also, new systems of transportation can be expensive. "But it's coming," he says. "The trend of the empowered city will be here soon."

The other trend that excites Golden is electric cars. "We need to reduce the amount of fuel we consume," says Golden. "Everyone agrees on this. The question is how to do it." Golden especially believes in the future of electric cars that have sensors to understand the world around them. "If we have cars that can communicate with one another, they can adjust speeds to eliminate traffic jams," he says. Rush hour in Houston would suddenly be much less painful.

One challenge related to the production of electric cars is that it is hard to cheaply produce batteries that are strong enough for these cars. This is partially because cars are so heavy. But Golden argues you could also make cars out of strong plastic composites. The cars would then be much lighter and much cheaper to make. "This could revolutionize the highways," he says. When could electric smart cars become the norm? Golden argues as soon as 2030.

As a futurist, Golden shares his predictions with other scholars at conferences across the country. He also provides advice to companies that want to know what the future will be like so that they can make better strategies. Golden remains optimistic about the future. "There are so many exciting developments," he says. "In thirty years we will live a very different world."

Name: _____ Date: _____

1. What is Gary Golden's one passion?

- A. Houston, Texas
- B. the environment
- C. human society
- D. transportation

2. One problem with electric cars is that they require very strong batteries. Part of the reason the batteries have to be so strong is that cars are so heavy. What solution does Golden propose for this problem?

- A. build cars out of strong plastic composites so that they are lighter
- B. find an easier and faster way to produce strong batteries for cars
- C. build cars out of lighter weight metals so they don't need as many batteries
- D. create a way for cars to communicate with each other and adjust their speeds

3. Cars require a lot of space in cities. What evidence from the passage best supports this conclusion?

- A. Cities have to build parking spaces and repair roads for cars.
- B. Cities may limit the number of cars people can have within the city.
- C. In Houston, there are 30 parking spaces for every resident.
- D. Parking lots at shopping centers are not full all of the time.

4. Based on Garry Golden's predictions, how can transportation systems of the future best be described?

- A. expensive and complicated
- B. high-tech and efficient
- C. high-tech yet impractical
- D. inexpensive yet outdated

5. What is this passage mostly about?

- A. how one futurist thinks transportation will change in the coming years
- B. reasons why cars cost the city money and are an inefficient use of resources
- C. how to improve electric cars so that they are more widely used and available
- D. a comparison of public transportation systems across the United States

6. Read the following sentences: "Houston, for example, has 30 parking spaces for every resident. That's 64.8 million parking spaces in only one city. Golden points out that having so many parking spaces is **inefficient**. Much of the time the parking spaces sit empty. At high-use times—for example, Saturday afternoon when everyone is running errands—every parking space at a shopping center is full. But at 3 a.m. on a Monday, no one is at the shopping center."

As used in this sentence, what does the word "**inefficient**" most nearly mean?

- A. productive without wasting time and materials
- B. successful and effective
- C. imaginative and creative
- D. wasteful of space and materials

7. Choose the answer that best completes the sentence below.

Historians study the past in order to better understand the present. _____, futurists analyze the present in order to make scientific predictions about the future.

- A. In particular
- B. Such as
- C. In contrast
- D. Ultimately

8. What does Garry Golden spend most of his days studying?

9. Buses are currently inefficient. According to Golden, how could this type of transportation be improved?

10. Explain how communications technology (such as smartphones and sensors) could help improve transportation in the future. Support your answer using information from the passage.

1. What is Gary Golden's one passion?

- A. Houston, Texas
- B. the environment
- C. human society
- D. transportation**

2. One problem with electric cars is that they require very strong batteries. Part of the reason the batteries have to be so strong is that cars are so heavy. What solution does Golden propose for this problem?

- A. build cars out of strong plastic composites so that they are lighter**
- B. find an easier and faster way to produce strong batteries for cars
- C. build cars out of lighter weight metals so they don't need as many batteries
- D. create a way for cars to communicate with each other and adjust their speeds

3. Cars require a lot of space in cities. What evidence from the passage best supports this conclusion?

- A. Cities have to build parking spaces and repair roads for cars.
- B. Cities may limit the number of cars people can have within the city.
- C. In Houston, there are 30 parking spaces for every resident.**
- D. Parking lots at shopping centers are not full all of the time.

4. Based on Garry Golden's predictions, how can transportation systems of the future best be described?

- A. expensive and complicated
- B. high-tech and efficient**
- C. high-tech yet impractical
- D. inexpensive yet outdated

5. What is this passage mostly about?

- A. how one futurist thinks transportation will change in the coming years
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- B. Such as
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- D. Ultimately

8. What does Garry Golden spend most of his days studying?

Garry Golden spends most of his days studying the relationships between cars, subways, and trains.

9. Buses are currently inefficient. According to Golden, how could this type of transportation be improved?

According to Golden, buses could be improved if passengers could use their smartphone to signal to the bus, indicating when they wanted to be picked up. Buses could change their route based on who wanted to ride.

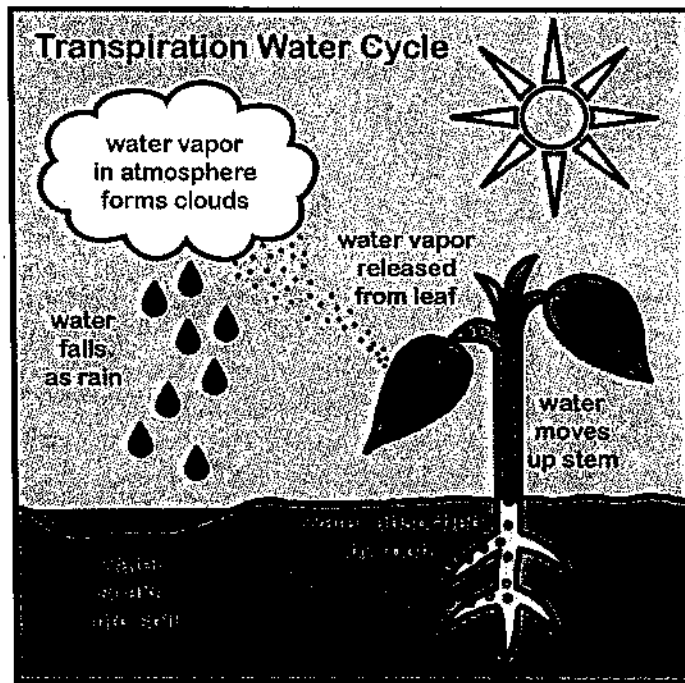
10. Explain how communications technology (such as smartphones and sensors) could help improve transportation in the future. Support your answer using information from the passage.

Answers may vary and should be supported by the passage. Students should indicate that communications technology could help transportation become more efficient and connected. For example, if people could use their smartphones to signal to buses when they want to be picked up, buses could change their routes based on who wanted to ride. This could keep buses from driving around with no passengers, thus improving efficiency. Communications technology could help improve cars, too. If cars could communicate with each other via sensors, they could adjust their speed based on the cars around them. This could help eliminate traffic jams and improve efficiency.

THE WATER CYCLE

Water covers most of our planet. It can be found in oceans, lakes, and ponds, and in the ground itself. The cycle of water from **liquid** to **vapor** to **solid** is called **the water cycle**. The water cycle is an exciting and continuous process, with no beginning or end. The water cycle is the movement of water in the environment by **evaporation**, **condensation**, and **precipitation**.

The warm sun causes liquid water to *evaporate* (to change from a liquid into a gas or vapor) and rise up into the sky. The water vapors that are formed cool during evaporation. These cooled water vapors form clouds in the sky. The transformation of the vapor into clouds (that is, from a gas into a liquid) is *condensation*. Clouds can be a mass of water droplets and/or ice particles. When the clouds get heavy enough, the water falls back to the ground in the form of rain, snow, or hail. This is *precipitation*.



Plants in our environment contain water in a liquid form. They release water vapor into the atmosphere. When plants do this it is called **transpiration**. Transpiration is a kind of evaporation.

ANSWER THE QUESTIONS ABOUT THE WATER CYCLE

1. What are the three forms of water listed in the article?
 - a. liquid, vapor, solid
 - b. frozen, vapor, solid
 - c. liquid, gas, hail
 - d. water, gas, solid

2. Which of the following is the best definition of evaporation?
 - a. It is the process of disappearing.
 - b. It is a magical process of turning into vapor.
 - c. It is the process of changing from liquid to vapor.
 - d. It is the process of moving from one place to another.

3. Which of the following is the best definition of condensation?
 - a. It is the process of moving things very close together.
 - b. It is the process of changing from vapor to liquid.
 - c. It is the process of changing from liquid to vapor.
 - d. It is the process of changing from vapor to solid.

4. Which of the following is the best example of precipitation?
 - a. rain
 - b. clouds
 - c. evaporation
 - d. ice

5. What causes evaporation?
 - a. The warm sun and photosynthesis.
 - b. Perspiration and precipitation.
 - c. Rain and snow.
 - d. The sun and transpiration.

6. What are clouds?
 - a. Masses of condensed water formed by cooled water vapors.
 - b. Masses of condensed vapors.
 - c. Masses of cotton balls.
 - d. Masses of evaporated water.

7. What causes precipitation?
 - a. Evaporation.
 - b. The weight of the clouds.
 - c. The hot sun.
 - d. Plant transpiration.

ANSWERS TO THE WATER CYCLE

1. a
2. c
3. b
4. a
5. d
6. a
7. b