TULSA PUBLIC SCHOOLS

6th Grade

Distance Learning Activities

SHAPE America

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April 2020

Secondary Mind & Body Calendar

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
National Health Observances • National Autism Awareness Month • National Minority Health Month • National Distracted Driving Awareness Month • Stress Awareness Month • April 7: World Health Day			**1** Yoga is a great way to relieve stress. Try Savasana, considered to be the hardest yoga pose! Fully relax & clear your mind. 	**2 Star Jumps** Jump up with your arms and legs spread out like a star. Do 10 then rest and repeat.	**3 Crane Pose** Here's a challenge! Put your hands on the ground, lean forward & balance your knees on your elbows. 	**4 4 Walls** Face each wall in a room and do a different exercise for 30 seconds -side shuffle -grapevine to left then right -wide stance punches -vertical jumps
5 Mindful Snack When eating a snack today, really pay attention to the taste, feel, sound, smell and look of the snack you're eating. What do you notice?	**6 Balance** Stand on your right leg and lift your left knee at a 90 degree angle. Touch your toe without falling repeat 10 times then switch sides.	**7 World Health Day** Did you know regular, moderate-intensity physical activity can help prevent diabetes? Go for a walk with an adult & discuss other ways to prevent diabetes.	**8 10 Jump Lunges** Complete a right leg lunge, while in the down position jump up landing in a lunge position on the left leg.	**9 Tabata** Jump squats 20 seconds of work 10 seconds of rest 8 rounds	**10 Before Bed Breathing** While lying in bed, place your hands on your stomach and pay attention to the up and down of your belly as you breathe.	**11 Dribble Challenge** Dribble a ball 100 times with each hand. Can you successfully dribble 100 times with each hand while moving?
12 Fish Pose Hold fish pose for 60 seconds. Take a break and hold for another 60 seconds 	**13 Card Fitness** Take a deck of cards, flip the top card. Complete exercises based on the suit & number on the card. Face cards are worth 15. Spades- jumping jacks, Clubs- squats, Hearts- mountain climbers, Diamonds- Your choice	**14 Wild Arms** As fast as you can complete: 10 Arm Circles front & back 10 Forward punches 10 Raise the Roof's Repeat 3x	**15 Mindful Senses** What do you notice around you? Find: 5 things you see 4 things you feel 3 things you hear 2 things smell 1 thing you taste	**16 Jump rope to music!** Can you jump to an entire song without stopping?	**17 How Fast Can You Go?** Pick a distance and see how fast you can run the distance.	**18 Slide, Slide, Sprint** Slide to your left for 10 steps, slide to right for 10 steps then face forward and sprint for 10 seconds.
19 Garland Pose Practice your balance with this pose! 	**20 Tabata** Tuck Jumps 20 seconds of work 10 seconds of rest 8 rounds	**21 Commercial Break** Can you hold a plank for an entire TV commercial break?	**22 Nighttime Note** Empty your mind before you go to bed by writing a note about what you're thinking and leave it for tomorrow.	**23 Chair Pose** Hold for 30 seconds, relax then repeat. 	**24 Positive Talk** Be sure to talk to yourself today like you would talk to someone you love.	**25 Jump, Jump** Jump side-to-side over an object or line for 1 minute straight. Go again but jump front to back. Repeat each jump twice.
26 Put your favorite song on and make up a dance or fitness routine!	**27 Paper Plate Planks** In plank position with paper plates under your feet. Complete 30s each: -mountain climbers -in and out feet -knees to chest	**28 Step Jumps** Find a step or a bench and jump up and down 50 times. Be careful. Take a break if you need to.	**29 A Gratitude Attitude** Write down something you're thankful for and why.	**30** Try Savasana again. Use this to relax and wind down all year! 	**SHAPE America recommends school-age children accumulate at least 60 minutes and up to several hours of physical activity per day. Each bout of physical activity should be followed by cool-down stretches that help reduce soreness and avoid injury. Happy exercising!** Yoga photos from www.forteyoga.com	

Name: _____ Class: _____

Growing Up

By Gary Soto
1990

Gary Soto is an American poet, novelist, and memoirist. In this short story, a teenage girl decides not to go on vacation with her family. As you read, take notes on Maria's emotions throughout the story.

[1] Now that Maria was a tenth-grader, she felt she was too grown-up to have to go on family vacation. Last year, the family had driven three hundred miles to see their uncle in West Covina. There was nothing to do. The days were hot, with a yellow sky thick with smog they could feel on their fingertips. They played cards and watched game shows on television. After the first four days of doing nothing while the grown-ups sat around talking, the kids finally got to go to Disneyland.

"Vocho 1" by Sara Garnica is licensed under CC0

Disneyland stood tall with castles and bright flags. The Matterhorn had wild dips and curves that took your breath away if you closed your eyes and screamed. The Pirates of the Caribbean didn't scare anyone but was fun anyway, and so were the teacups, and It's a Small World. The parents spoiled the kids, giving each of them five dollars to spend on trinkets.[1] Maria's younger sister, Irma, bought a Pinocchio coloring book and a candy bracelet. Her brothers, Rudy and John, spent their money on candy that made their teeth blue.

Maria saved her money. She knew everything was overpriced, like the Mickey Mouse balloons you could get for a fraction of the price in Fresno. Of course, the balloon at Hanoian's supermarket didn't have a Mickey Mouse Face, but it would bounce and float and eventually pop like any other balloon.

Maria folded her five dollars, tucked it in her red purse, and went on rides until she got sick. After that, she sat on a bench, jealously watching other teenage girls who seemed much better dressed than she was. She felt stricken by poverty.[2] All the screaming kids in nice clothes probably came from homes with swimming pools in their backyards, she thought. Yes, her father was a foreman[3] at a paper mill, and yes, she had a Dough-boy swimming pool[4] in her backyard, but still, things were not the same. She had felt poor, and her sundress, which seemed snappy in Fresno, was out of style at Disneyland, where every other kid was wearing Esprit shirts and Guess jeans.

1. a small toy
2. **Poverty** ***(noun):*** the state of being extremely poor
3. a worker who supervises others
4. a brand of above-ground pools

[5] This year Maria's family planned to visit an uncle in San Jose. Her father promised to take them to Great America,[5] but she knew that the grown-ups would sit around talking for days before they remembered the kids and finally got up and did something. They would have to wait until the last day before they could go to Great America. It wasn't worth the boredom.

"Dad, I'm not going this year," Maria said to her father. He sat at the table with the newspaper in front of him.

"What do you mean?" he asked, slowly looking up. He thought a moment and said, "When I was a kid we didn't have money for vacations. I would have been happy to go with my father."

"I know, I know. You've said that a hundred times," she snapped.

"What did you say?" he asked, pushing his newspaper aside.

[10] Everything went quiet. Maria could hear the hum of the refrigerator and her brothers out in the front yard arguing over a popsicle stick, and her mother in the backyard watering the strip of grass that ran along the patio.

Her father's eyes locked on her with a dark stare. Maria had seen that stare before. She pleaded in a soft daughterly voice, "We never do anything. It's boring. Don't you understand?"

"No, I don't understand. I work all year, and if I want to go on a vacation, then I go. And my family goes too." He took a swallow of ice water, and glared.

"You have it so easy," he continued. "In Chihuahua, my town, we worked hard. You worked, even los chavalos![6] And you showed respect to your parents, something you haven't learned."

Here it comes, Maria thought, stories about his childhood in Mexico. She wanted to stuff her ears with wads of newspaper to keep from hearing him. She could recite his stories word-for-word. She couldn't wait until she was in college and away from them.

[15] "Do you know my father worked in the mines? That he nearly lost his life? And today his lungs are bad." He pounded his chest with hard, dirt-creased knuckles.

Maria pushed back her hair and looked out the window at her brothers running around in the front yard. She couldn't stand it anymore. She got up and walked away, and when he yelled for her to come back, she ignored him. She locked herself in her bedroom and tried to read Seventeen, thought she could hear her father complaining to her mother, who had come in when she had heard the yelling.

"Habla con tu mocosa,"[7] she heard him say.

5. an amusement park
6. Spanish for "the kids"
7. Spanish for "talk to your brat"

She heard the refrigerator door open. He was probably getting a beer, a "cold one," as he would say. She flipped through the pages of her magazine and stopped at a Levi's ad of a girl about her age walking between two happy-looking guys on a beach. She wished she were that girl, that she had another life. She turned the page and thought, I bet you he gets drunk and drives crazy tomorrow.

Maria's mother was putting away a pitcher of Kool-Aid the boys had left out. She looked at her husband, who was fumbling with a wadded-up napkin. His eyes were dark, and his thoughts were on Mexico, where a father was respected and his word, right or wrong, was final. "Rafael, she's growing up; she's a teenager. She talks like that, but she still loves you."

[20] "Sure, and that's how she shows her love, by talking back to her father." He rubbed the back of his neck and turned his head, trying to make the stiffness go away. He knew it was true, but he was the man of the house and no daughter of his was going to tell him what to do.

Instead, it was his wife, Eva, who told him what to do. "Let the girl stay. She's big now. She don't want to go on rides no more. She can stay with her nina."[8]

The father drank his beer and argued, but eventually agreed to let his daughter stay.

The family rose just after six the next day and was ready to go by seven-thirty. Maria stayed in her room. She wanted to apologize to her father but couldn't. She knew that if she said, "Dad, I'm sorry," she would break into tears. Her father wanted to come into her room and say, "We'll do something really special this vacation. Come with us, honey." But it was hard for him to show his emotions around his children, especially when he tried to make up to them.

The mother kissed Maria. "Maria, I want you to clean the house and then walk over to your nina's. I want no monkey business while we're gone, do you hear me?"

[25] "Si, Mama."

"Here's the key. You water the plants inside and turn on the sprinkler every couple of days." She handed Maria the key and hugged her. "You be good. Now, come say goodbye to your father."

Reluctantly, she walked out in her robe to the front yard and, looking down at the ground, said goodbye to the garden hose at his feet.

After they left, Maria lounged in her pajamas listening to the radio and thumbing through magazines. Then she got up, fixed herself a bowl of Cocoa Puffs, and watched "American Bandstand." Her dream was to dance on the show, to look at the camera, smile and let everyone in Fresno see that she could have a good time, too.

But an ill feeling stirred inside her. She felt awful about arguing with her father. She felt bad for her mother and two brothers, who would have to spend the next three hours in the car with him. Maybe he would do something crazy, like crash the car on purpose to get back at her, or fall asleep and run the car into an irrigation ditch. And it would be her fault.

8. godmother

[30] She turned the radio to a news station. She listened for half an hour, but most of the news was about warships in the Persian Gulf and a tornado in Texas. There was no mention of her family.

Maria began to calm down because, after all, her father was really nice beneath his gruffness. She dressed slowly, made some swishes with the broom in the kitchen, and let the hose run in a flower bed while she painted her toenails with her mother's polish. Afterward, she called her friend Becky to tell her that her parents had let her stay home, that she was free — for five days at least.

"Great," Becky said. "I wish my mom and dad would go away and let me stay by myself."

"No, I have to stay with my godmother." She made a mental note to give her nina a call. "Becky, let's go to the mall and check out the boys."

"All right."

[35] "I'll be over pretty soon."

Maria called her nina, who said it was OK for her to go shopping, but to be at her house for dinnertime by six. After hanging up, Maria took off her jeans and T-Shirt, and changed into a dress. She went through her mother's closet to borrow a pair of shoes and drenched her wrists in Charlie perfume. She put on coral-pink lipstick and smudge of blue eye shadow. She felt beautiful, although a little self-conscious. She took off some of the lipstick and ran water over her wrists to dilute[9] the fragrance.

While she walked the four blocks to Becky's house, she beamed happiness until she passed a man who was on his knees pulling weeds from his flower bed. At his side, a radio was reporting a traffic accident. A big rid had overturned after hitting a car near Salinas, twenty miles from San Jose.

A wave of fear ran through her. Maybe it was them. Her smile disappeared, and her shoulders slouched. No, it couldn't be, she thought. Salinas is not that close to San Jose. Then again, maybe her father wanted to travel through Salinas because it was a pretty valley with wide plains and oak trees, and horses and cows that stared as you passed them in your speeding car. But maybe it did happen; maybe they had gotten in an awful wreck.

By the time she got to Becky's house, she was riddled[10] with guilt, since it was she who would have disturbed her father and made him crash.

[40] "Hi," she said to Becky, trying to look cheerful.

"You look terrific, Maria," Becky said. "Mom, look at Maria. Come inside for a bit."

Maria blushed when Becky's mother said she looked gorgeous. She didn't know what to do except stare at the carpet and say, "Thank you, Mrs. Ledesma."

9. **Dilute** ***(verb):*** to make something thinner or weaker by adding water
10. **Riddle** ***(verb):*** to fill with something undesirable or unpleasant

Becky's mother gave them a ride to the mall, but they'd have to take a bus back. The girls first went to Macy's, where they hunted for a sweater, something flashy but not too flashy. Then they left to have a Coke and sit by the fountain under an artificial tree. They watched people walk by, especially the boys, who they agreed, were dumb but cute nevertheless.

They went to The Gap, where they tried on some skirts, and ventured into The Limited, where they walked up and down the aisles breathing in the rich smells of 100-percent wool and silk. They were about to leave, when Maria heard once again on someone's portable radio that a family had been killed in an auto accident near Salinas. Maria stopped smiling for a moment as she pictured her family's overturned Malibu station wagon.

[45] Becky sensed that something was wrong and asked, "How come you're so quiet?"

Maria forced a smile. "Oh, nothing, I was just thinking."

"'bout what?"

Maria thought quickly. "Oh, I think I left the water on at home." This could have been true. Maria remembered pulling the hose from the flower bed, but couldn't remember if she had turned the water off.

Afterward they rode the bus home with nothing to show for their three hours of shopping except a small bag of See's candies. But it had been a good day. Two boys had followed them, joking and flirting, and they had flirted back. The girls gave them made-up telephone numbers, then turned away and laughed into their hands.

[50] "They're fools," Becky said, "but cute."

Maria left Becky when they got off the bus, and started off to her nina's house. Then she remembered that the garden hose might still be running at home. She hurried home, clip-clopping clumsily in her mother's shoes.

The garden hose was rolled neatly against the trellis.[11] Maria decided to check the mail and went inside. When she pushed open the door, the living room gave off a quietness she had never heard before. Usually the TV was on, her younger brothers and sister were playing, and her mother could be heard in the kitchen. When the telephone rang, Maria jumped. She kicked off her shoes, ran to the phone, and picked up the receiver only to hear a distant clicking sound.

"Hello, hello?" Maria's heart began to thump. Her mind went wild with possibilities. An accident, she thought, they're in an accident, and it's all my fault. "Who is it? Dad? Mom?"

She hung up and looked around the room. The clock on the television set glowed 5:15. She gathered the mail, changed into jeans, and left for her nina's house with a shopping bag containing her nightie[12] and a toothbrush.

[55] Her nina was happy to see her. She took Maria's head in her hands and gave it a loud kiss.

11. a framework of wood or metal for trees or climbing plants
12. pajamas

"Dinner is almost ready," she said, gently pulling her inside.

"Oh, good. Becky and I only had popcorn for lunch."

They had a quiet evening together. After dinner, they sat on the porch watching the stars. Maria wanted to ask her nina if she had heard from her parents. She wanted to know if the police had called to report that they had gotten into an accident. But she just sat on the porch swing, letting anxiety eat a hole in her soul.

The family was gone for four days. Maria prayed for them, prayed that she would not wake up to a phone call saying that their car had been found in a ditch. She made a list of the ways she could be nicer to them: doing the dishes without being asked, watering the lawn, hugging her father after work, and playing with her youngest brother, even if it bored her to tears.

[60] At night Maria worried herself sick listening to the radio for news of an accident. She thought of her uncle Shorty and how he fell asleep and crashed his car in the small town of Medota. He lived confined to a motorized wheelchair and was scarred with burns on the left side of his face.

"Oh, please, don't let anything like that happen to them," she prayed.

In the morning she could barely look at the newspaper. She feared that if she unfolded it, the front page would feature a story about a family from Fresno who had flown off the roller coaster at Great America. Or that a shark had attacked them as they bobbed happily among the white-tipped waves. Something awful is going happen, she said to herself as she poured Rice Krispies into a bowl.

But nothing happened. Her family returned home, dark from lying on the beach and full of great stories about the Santa Cruz boardwalk and Great America and an Egyptian Museum. They had done more this year than in all their previous vacations.

"Oh, we had fun," her mother said, pounding sand from her shoes before entering the house.

[65] Her father gave her a tight hug as her brothers ran by, dark from hours of swimming.

Maria stared at the floor, miffed.[13] How dare they have so much fun? While she worried herself sick about them, they had splashed in the waves, stayed at Great America until nightfall, and eaten at all kinds of restaurants. They even went shopping for fall school clothes.

Feeling resentful[14] as Johnny described a ride that dropped straight down and threw your stomach into your mouth, Maria turned away and went off to her bedroom, where she kicked off her shoes and thumbed through an old Seventeen. Her family was alive and as obnoxious as ever. She took back all her promises. From now on she would keep to herself and ignore them. When they asked, "Maria, would you help me?" she would pretend not to hear and walk away.

13. annoyed
14. **Resentful** ***(adjective):*** feeling or expressing bitterness or irritation

"They're heartless," she muttered. "Here I am worrying about them, and there they are having fun." She thought of the rides they had gone on, the hours of body surfing, the handsome boys she didn't get to see, the restaurants, and the museum. Her eyes filled with tears. For the first time in years, she hugged a doll, the one her grandmother Lupe had stitched together from rags to old clothes.

"Something's wrong with me," she cried softly. She turned on her radio and heard about a single-engine plane that had crashed in Cupertino, a city not far from San Jose. She thought of the plane and the people inside, how the pilot's family would suffer.

[70] She hugged her doll. Something was happening to her, and it might be that she was growing up. When the news ended, and a song started playing, she got up and washed her face without looking in the mirror.

That night the family went out for Chinese food. Although her brothers fooled around, cracked jokes, and spilled a soda, she was happy. She ate a lot, and when her fortune cookie said, "You are mature and sensible," she had to agree. And her father and mother did too. The family drove home singing the words to "La Bamba" along with the car radio.

Text-Dependent Questions

Directions: For the following questions, choose the best answer or respond in complete sentences.

1. PART A: Which statement best expresses a theme of the short story?
    A. Being a teenager can be a difficult and confusing time.
    B. Family vacations are a good way to keep family members close.
    C. The world encourages kids to grow up too quickly.
    D. Most teenagers aren't ready for the independence they are given.

2. PART B: Which detail from the text best supports the answer to Part A?
    A. "She felt stricken by poverty. All the screaming kids in nice clothes probably came from homes with swimming pools in their backyards, she thought." (Paragraph 4)
    B. "'I work all year, and if I want to go on a vacation, then I go. And my family goes too.' He took a swallow of ice water, and glared." (Paragraph 12)
    C. "'Let the girl stay. She's big now. She don't want to go on rides no more. She can stay with her nina.'" (Paragraph 21)
    D. "Her eyes filled with tears. For the first time in years, she hugged a doll, the one her grandmother Lupe had stitched together from rags to old clothes." (Paragraph 68)

3. Which option describes the main purpose of paragraphs 14-16 in the story?
    A. They suggest that Maria and her father have never had a good relationship.
    B. They suggest that Maria gets her short temper from her father.
    C. They show how Maria and her father struggle to understand each other's experiences.
    D. They show how Maria is a spoiled child who has never had to listen to her parents.

4. How does Maria's attitude towards her family change throughout the text?
    A. Maria's attitude swings between feeling loved by her family to feeling unappreciated.
    B. Maria's attitude shifts from worrying about her family to being incredibly angry with them.
    C. Maria remains angry with her family from when they leave for vacation until they return.
    D. Maria feels guilty throughout the text, for being mean to her family and not going on vacation with them.

5. How does Maria's changing attitude emphasize the theme of the short story? Use details from the text to support your answer.

Discussion Questions

Directions: Brainstorm your answers to the following questions in the space provided. Be prepared to share your original ideas in a class discussion.

1. In the short story, Maria gets upset when her family returns and says to herself, "something's wrong with me." Why do you think Maria experiences such intense emotions? Have you ever felt like this? How does Maria recover from her bad mood? What can you do if you feel like this?

2. In the short story, Maria is allowed to stay home from the family's vacation. Have you been given or wish you've been given more independence or responsibilities as you've grown up? If so, describe them.

3. In the short story, Maria has an argument with her father. Do you think it's common to disagree with your parents as you get older? Why or why not? Have you ever disagreed with your family? How did you resolve the argument?

COMMONLIT

Name: _____ Class: _____

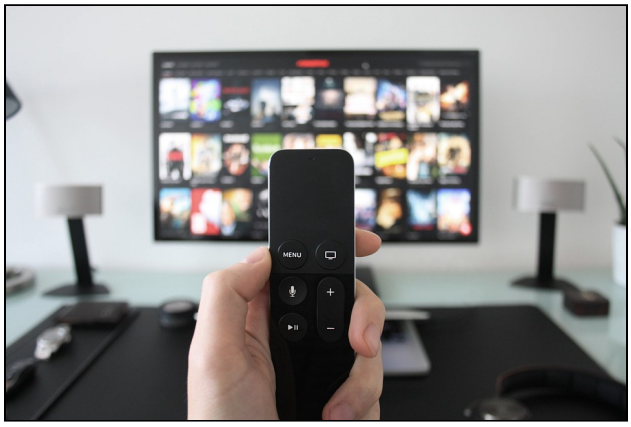
'Couch potatoes' tend to be TV-energy hogs

Small group of heavy U.S. watchers use one-third of all energy linked to TV viewing

By Kathiann Kowalski
2016

How many hours of television do you watch a day? Depending on your answer, you could be responsible for wasting a lot of electricity. As you read, take notes on how couch potatoes can help save energy and reduce global warming.

[1] Television brings us lots of news and entertainment. It also eats up electricity. A new analysis now offers a bright idea for lowering the electricity used by TV viewers: Focus on the couch potatoes.



"Untitled" by StockSnap is licensed under CC0

Energy-efficiency programs[1] reward people for doing things to use less electricity. For example, new TV sets tend to use far less electricity than older ones. So an energy-efficiency program might offer money back — a rebate — to anyone who buys an energy-saving TV.

But some people will save far more electricity than others if they make the switch. That's what Eric Williams and his team found. Williams is a sustainability scientist at the Rochester Institute of Technology in New York. His work combines social science, engineering and data analysis.

His team focused on how people use their TVs. To do that, they mined[2] data from the American Time Use Survey. The U.S. Bureau of Labor Statistics conducts this survey. Each year, it asks more than 11,000 people to spell out how they spent their time the day before.

[5] The Rochester team put all of the survey data on time spent watching TV into a computer model. Then the model used math equations to divide these people into three groups. The equations work to reduce to a minimum any differences between people in each group, Williams explains.

On average, about 54 percent of U.S. viewers watch TV for slightly more than one hour each day. Another 33 percent watch about 3.5 hours per day. The average TV time for the remaining 14 percent was about 7.7 hours each day. Indeed, people in that last group — the so-called "couch potatoes" — typically spent nearly half their waking hours watching TV.

1. programs with the goal of reducing how much energy is used
2. to extract something of value from a source

The research team then estimated the amount of electricity used by each group. To do this, they based their calculations on an average television. And they showed that the 14 percent in that heavy-viewing group — "is responsible for a third of the total TV-energy use," says Ashok Sekar. He's a graduate student at the Rochester Institute of Technology.

Using the findings

The team then dug into the data to see who those heavy viewers were. Half of them were over age 54. People in the group were more likely to work part-time or be retired. In general, those people also had less education — and less money to spend — than those in the other groups.

If those people switched to a new TV, they would save the most electricity. On average, Sekar points out, "The heavy watcher will get seven times the energy savings compared to the light watcher."

[10] "People are different, and those differences in what you like make a big difference in how you use energy," notes Williams. Understanding that might help government set policies aimed at helping the environment, he points out.

Here's how. About two-thirds of the nation's electricity comes from power plants that burn coal or other fossil fuels. (Those numbers come from the U.S. Energy Information Administration.) Among other things, these fossil-fueled plants emit[3] carbon dioxide and other greenhouse gases.[4] Power plants that burn fossil fuels are the single largest U.S. source of those gases. Those power plants, alone, spewed some 30 percent of the total in 2014, notes the U.S. Environmental Protection Agency. So lowering electricity use can cut down on the pollution that helps drive global warming.

Knowing these TV viewing patterns can help improve programs to promote energy efficiency. Those programs cost money. So it makes sense to get the most value from the money spent. The new study suggests the best plan may be to zero in on the small group of viewers who watch TV the most and then encourage them to buy more efficient TVs.

Extra benefits

Getting those people to switch would also save society money. "There's actually double savings," Sekar notes. "The purchasers save money because they're using fewer kilowatt-hours" of electricity. (Kilowatt-hours is how power companies measure electricity use.) And electric companies save money "if they're using less power during the peak" periods of energy use, he adds. (That's because they must run extra, less efficient plants to generate the extra power at this time of day. Alternatively, they might need to buy that electricity from another company.) Those peak times tend to occur in the afternoon and on especially warm days.

The researchers also have a few ideas about how to tweak existing energy-efficiency programs. An electric company might send a postcard to all customers about rebates[5] on low-power TVs and appliances. That company might also make phone calls to customers who fit the "couch potato" profile and explain how much energy — and money — they might save with a new TV.

3. **Emit** ***(verb):*** to produce and discharge something, especially gas or radiation
4. any of the gases that trap heat in the Earth's atmosphere and contribute to its warming
5. a sales promotion used as an incentive through a price reduction or refund

[15] Another idea: Change the Energy Star labels on new TV sets. Right now, those labels report energy costs for an average viewer. But, as the study shows, many viewers use their TV sets far more than average. Perhaps the label could add a QR code,[6] says Williams. A shopper might then scan the code with a smartphone. An online survey would then ask about that person's TV-viewing habits. And that website might spell out how much that person might save on energy bills by switching to a new TV.

A similar approach might work for other things that hog electricity, Williams adds. For example, some people may use air conditioning, dishwashers or other appliances far more than others do. Studies could find out who those heavy-use groups are. Then focused programs could target them with data to help them figure out how to cut back their electricity use.

What can you do?

You don't have to wait for more studies to save energy, says Williams. "Look at your own household and ask the question, 'What do we do a lot of?'" Then find out if you're using the most energy-saving technology for that activity. If not, think about making a switch, he says. In this way, everyone can help curb[7] global warming.

Reuven Sussman is a social psychologist. He works for the American Council for an Energy-Efficient Economy, in Washington, D.C. He studies ways to get people in society to reduce their energy use. "It is important to understand what behaviors are resulting in energy consumption," he says. Only in that way, he explains, can people figure out who to target about making changes in energy use. The more specific that advice can be, he says, the more likely it will lead to change.

In other words, don't just list TV-watching as one of many things that uses electricity. Advise people who watch lots of television to make a particular change, such as scrapping an inefficient TV.

[20] Better still, says Sussman, watch less TV! "It's also healthier to do non-television activities than it is to watch television," he notes. Spending too much time watching TV has been linked to several physical and mental health problems in both children and adults. Studies have found links between heavy TV-watching by children and obesity and increased aggression, for example.

So "stop watching television," Sussman advises students. Or, at least watch a lot less.

6. a type of barcode that provides information to a smartphone or smart device
7. restrain

Text-Dependent Questions

Directions: For the following questions, choose the best answer or respond in complete sentences.

1. PART A: Which statement best expresses the central idea of the text?
    A. Watching television wastes more energy than any other activity and is the biggest contributor to global warming.
    B. Despite how much money it could save television-watchers, many companies don't sell energy-efficient televisions.
    C. People who watch more television and use the most electricity don't care about the health of the environment.
    D. The people who watch the most television, also have the greatest potential to save energy and help the environment.

2. PART B: Which detail from the text best supports the answer to Part A?
    A. "On average, about 54 percent of U.S. viewers watch TV for slightly more than one hour each day. Another 33 percent watch about 3.5 hours per day." (Paragraph 6)
    B. "On average, Sekar points out, 'The heavy watcher will get seven times the energy savings compared to the light watcher.'" (Paragraph 9)
    C. "For example, some people may use air conditioning, dishwashers or other appliances far more than others do. Studies could find out who those heavy-use groups are." (Paragraph 16)
    D. "Spending too much time watching TV has been linked to several physical and mental health problems in both children and adults." (Paragraph 20)

3. What is the author's main purpose in the text?
    A. to encourage readers to switch to more renewable sources for energy
    B. to inform readers on the best television to buy to save energy
    C. to show which television-watchers use the most energy and how they can conserve it
    D. to explore all the different types of activities that contribute to global warming

4. How do paragraphs 19-20 contribute to the development of ideas in the text?
    A. They emphasize how little is truly known about how much energy people use and what they use it for.
    B. They stress how complicated it is to get people who use a lot of energy to switch to energy-efficient products.
    C. They show how understanding people and their energy-usage will lead to better energy-saving methods.
    D. They support the claim that watching television is the biggest waste of energy in most households.

5. What is the relationship between watching television and global warming? Use details from the text in your response.

Discussion Questions

Directions: Brainstorm your answers to the following questions in the space provided. Be prepared to share your original ideas in a class discussion.

1. In the text, the author discusses how watching television consumes energy but also explains that this is not the only energy-consuming activity in the typical household. Consider all the activities and services that you rely on that are powered by electricity. Which of these can you cut down on or switch to more energy-efficient versions?

2. The text explores a study that analyzed how the amount of television watched related to energy consumption. How much television do you watch? Would it be worth it for you to switch to a more energy-efficient television? Why or why not?

3. In the text, the author discusses how televisions that aren't energy-efficient contribute to global warming. What are other technologies that humans rely on that are bad for the environment?

6th Grade Mathematics for the week of 13-17 Apr.

ACCESSING HOMEWORK HELPER eBOOKS

STEP 1: CREATE AN ACCOUNT
Sign up for a free account at GreatMinds.org/store/signup.

STEP 2: ACCESS YOUR DASHBOARD
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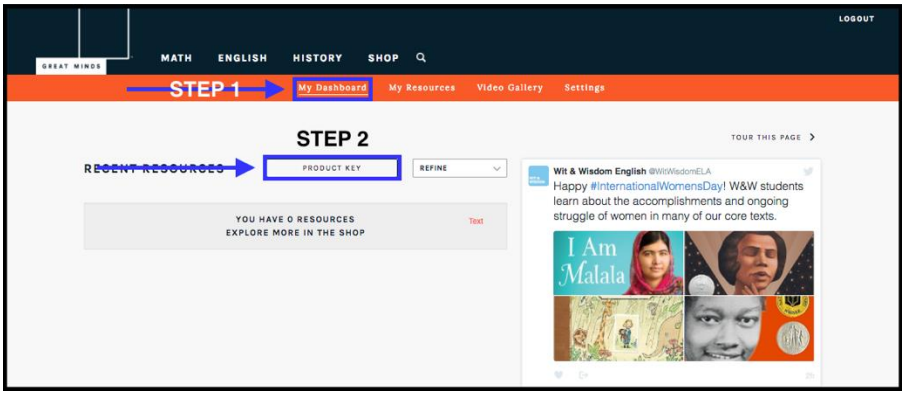

After you have logged in you can also access your Dashboard by clicking “MY DASHBOARD” in the upper right-hand corner of the site.

STEP 3: ENTER YOUR PRODUCT KEY
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EUREKA MATH™ TIPS FOR PARENTS

KEY CONCEPT OVERVIEW

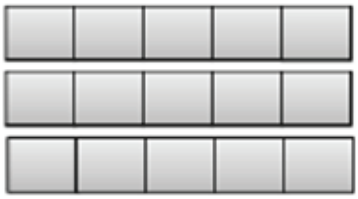
In Topic A, students use a tape diagram to examine relationships between operations. They begin by exploring the relationship between addition and subtraction. Next, they explore the relationships between multiplication and division and multiplication and addition. Students conclude the topic by exploring how subtraction and division are related.

You can expect to see homework that asks your child to do the following:

- Fill in the missing part of a **number sentence** or **equation**.
- Explain why the equations $w - x + x = w$ and $w + x - x = w$ are called **identities**.
- Examine and describe the relationships between operations.
- Write an **equivalent expression** to show a specific relationship. For example, 3×9 is equivalent to $9 + 9 + 9$, or $3d$ is equivalent to $d + d + d$.
- From a division equation, write the related subtraction equation, draw the tape diagram, and determine the value of the **variable**. (See the Sample Problem.)

SAMPLE PROBLEMS *(From Lessons 3-4)*

Write the addition and multiplication **expressions** that describe the model.



$5 + 5 + 5$ *and* 3×5

Using the equation $18 \div x = 3$, write a related subtraction equation, and represent it as a tape diagram. Then, state the value of x.

$18 - x - x - x = 0$

$x = 6$

Additional sample problems with detailed answer steps are found in the *Eureka Math Homework Helpers* books. Learn more at GreatMinds.org.

HOW YOU CAN HELP AT HOME

You can help at home in many ways. Here are some tips to help you get started.

- Read this statement with your child: "When a number is multiplied and divided by the same number, the result is the original number." For example, $11 \times 5 \div 5 = 11$. Ask your child to write a few examples to show this. Discuss with your child why the equation $3 \times 9 \div 3 = 9$ does not represent this statement. (A number is not multiplied and then divided by the same number. The 3 is multiplied by 9 and then divided by 3, not 9.)
- With your child, create a few examples of real-life money situations where the result is the original number. For example, say that you have $10. You spend $5 at the store. Then you find $5 on the sidewalk. How do your examples relate to the identities $w - x + x = w$ or $w + x - x = w$? $(10 - 5 + 5 = 10)$

TERMS

Equation: A statement indicating that two expressions are equal (e.g., $3 \times 4 = 6 \times 2$ and $5 + x = 20$).

Equivalent expressions: Expressions that have the same value (e.g., 2×6 is equivalent to $4a$ if $a = 3$).

Expression: A group of numbers, symbols, and operators such as + and − with no equal sign that evaluates to a number (e.g., 2×4 and $9n + 7$).

Identity: An equation that is true no matter what values are substituted for the variables (e.g., $w - x + x = w$ because w and x can be replaced with any numbers, and the equation would remain true).

Number sentence: A statement indicating that two numerical expressions are equal (e.g., $8 - 2 = 5 + 1$).

Variable: A symbol, such as a letter, that is a placeholder for a number.

Lesson 1: The Relationship of Addition and Subtraction

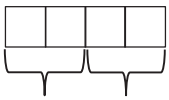
SCAN ME

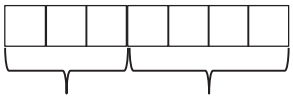
Classwork

Opening Exercise

a. Draw a tape diagram to represent the following expression: $5 + 4$.

b. Write an expression for each tape diagram.

i. 

ii. 

Exercises

1. Predict what will happen when a tape diagram has a large number of squares, some squares are removed, and then the same amount of squares are added back on.

2. Build a tape diagram with 10 squares.
   a. Remove six squares. Write an expression to represent the tape diagram.

   b. Add six squares onto the tape diagram. Alter the original expression to represent the current tape diagram.

c. Evaluate the expression.

3. Write an equation, using variables, to represent the identities we demonstrated with tape diagrams.

4. Using your knowledge of identities, fill in each of the blanks.

a. $4 + 5 - \_\_\_\_\_ = 4$

b. $25 - \_\_\_\_\_ + 10 = 25$

c. $\_\_\_\_\_ + 16 - 16 = 45$

d. $56 - 20 + 20 = \_\_\_\_\_$

5. Using your knowledge of identities, fill in each of the blanks.

a. $a + b - \_\_\_\_\_ = a$

b. $c - d + d = \_\_\_\_\_$

c. $e + \_\_\_\_\_ - f = e$

d. $\_\_\_\_\_ - h + h = g$

SCAN ME

Lesson 2: The Relationship of Multiplication and Division

Classwork

Opening Exercise

Draw a pictorial representation of the division and multiplication problems using a tape diagram.

a. $8 \div 2$

b. 3×2

Exploratory Challenge

Work in pairs or small groups to determine equations to show the relationship between multiplication and division. Use tape diagrams to provide support for your findings.

1. Create two equations to show the relationship between multiplication and division. These equations should be identities and include variables. Use the squares to develop these equations.

2. Write your equations on large paper. Show a series of tape diagrams to defend each of your equations.

Use the following rubric to critique other posters.

1. Name of the group you are critiquing
2. Equation you are critiquing
3. Whether or not you believe the equations are true and reasons why

Lesson 3: The Relationship of Multiplication and Addition

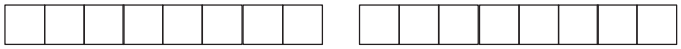
SCAN ME

Classwork

Opening Exercise

Write two different expressions that can be depicted by the tape diagram shown. One expression should include addition, while the other should include multiplication.

a. 

b. 

c. 

Exercises

1. Write the addition sentence that describes the model and the multiplication sentence that describes the model.

2. Write an equivalent expression to demonstrate the relationship of multiplication and addition.

a. $6 + 6$

b. $3 + 3 + 3 + 3 + 3 + 3$

c. $4 + 4 + 4 + 4 + 4$

d. 6×2

e. 4×6

f. 3×9

g. $h + h + h + h + h$

h. $6y$

3. Roberto is not familiar with tape diagrams and believes that he can show the relationship of multiplication and addition on a number line. Help Roberto demonstrate that the expression 3×2 is equivalent to $2 + 2 + 2$ on a number line.

4. Tell whether the following equations are true or false. Then, explain your reasoning.
   a. $x + 6g - 6g = x$

   b. $2f - 4e + 4e = 2f$

5. Write an equivalent expression to demonstrate the relationship between addition and multiplication.

   a. $6 + 6 + 6 + 6 + 4 + 4 + 4$

   b. $d + d + d + w + w + w + w + w$

   c. $a + a + b + b + b + c + c + c + c$

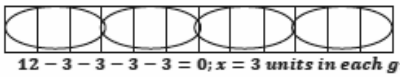
SCAN ME

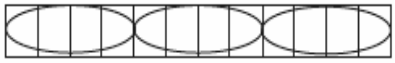
Lesson 4: The Relationship of Division and Subtraction

Classwork

Exercise 1

Build subtraction equations using the indicated equations. The first example has been completed for you.

Division Equation	Divisor Indicates the Size of the Unit	Tape Diagram	What is x, y, z?
$12 \div x = 4$	$12 - x - x - x - x = 0$	 $12 - 3 - 3 - 3 - 3 = 0; x = 3$ *units in each group*	$x = 3$
$18 \div x = 3$			
$35 \div y = 5$			
$42 \div z = 6$			

Division Equation	Divisor Indicates the Number of Units	Tape Diagram	What is x, y, z?
$12 \div x = 4$	$12 - 4 - 4 - 4 = 0$	 $12 - 4 - 4 - 4 = 0; x = 3$ *groups*	$x = 3$
$18 \div x = 3$			
$35 \div y = 5$			
$42 \div z = 6$			

Exercise 2

Answer each question using what you have learned about the relationship of division and subtraction.

a. If $12 \div x = 3$, how many times would x have to be subtracted from 12 in order for the answer to be zero? What is the value of x?

b. $36 - f - f - f - f = 0$. Write a division sentence for this repeated subtraction sentence. What is the value of f?

c. If $24 \div b = 12$, which number is being subtracted 12 times in order for the answer to be zero?

EUREKA MATH™ TIPS FOR PARENTS

KEY CONCEPT OVERVIEW

In Topic B, students extend their knowledge of **exponents** from Grade 5 as they strengthen their understanding of the related vocabulary (**base**, power, exponent, **cubed**, and **squared**) and move from whole number bases to bases written in fraction and decimal form. After studying exponents, students build on knowledge from Topic A. They learn more about the order of operations and how it is used to **evaluate** various **numerical expressions** by examining operations in terms of how *powerful* they are.

You can expect to see homework that asks your child to do the following:

- Write a number in exponential, expanded, and standard form.
- Explain why a whole number base raised to a whole number exponent gets larger, while a fractional base raised to a whole number exponent gets smaller.
- List all the powers of 3 and 4 that evaluate to any number between 3 and 1,000.
- Describe the advantage of **exponential notation** (rather than a multiplication expression) if all the factors are the same.
- Explain the difference between expressions using their knowledge of exponents. For example, $3x$ and x^3 are different because if x has a value of 2, the value of $3x$ is $3(2)$, or 6, and the value of x^3 is $2 \times 2 \times 2$, or 8.
- Evaluate an expression using the order of operations.

SAMPLE PROBLEM *(From Lesson 6)*

Evaluate using the order of operations.

$2^4 \cdot (13 + 5 - 14 \div (3 + 4))$

$2^4 \cdot (13 + 5 - 14 \div 7)$

$2^4 \cdot (13 + 5 - 2)$

$2^4 \cdot 16$

$16 \cdot 16$

256

Additional sample problems with detailed answer steps are found in the *Eureka Math Homework Helpers* books. Learn more at GreatMinds.org.

SCAN ME

Lesson 5: Exponents

Classwork

Opening Exercise

As you evaluate these expressions, pay attention to how you arrived at your answers.

$4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4$

$9 + 9 + 9 + 9 + 9$

$10 + 10 + 10 + 10 + 10$

Examples 1–10

Write each expression in exponential form.

1. $5 \times 5 \times 5 \times 5 \times 5 =$

2. $2 \times 2 \times 2 \times 2 =$

Write each expression in expanded form.

3. $8^3 =$

4. $10^6 =$

5. $g^3 =$

Go back to Examples 1–4, and use a calculator to evaluate the expressions.

What is the difference between $3g$ and g^3?

6. Write the expression in expanded form, and then evaluate.
   $(3.8)^4 =$

7. Write the expression in exponential form, and then evaluate.
   $2.1 \times 2.1 =$

8. Write the expression in exponential form, and then evaluate.
   $0.75 \times 0.75 \times 0.75 =$

The base number can also be a fraction. Convert the decimals to fractions in Examples 7 and 8 and evaluate. Leave your answer as a fraction. Remember how to multiply fractions!

9. Write the expression in exponential form, and then evaluate.

$\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} =$

10. Write the expression in expanded form, and then evaluate.

$\left(\frac{2}{3}\right)^2 =$

Exercises

1. Fill in the missing expressions for each row. For whole number and decimal bases, use a calculator to find the standard form of the number. For fraction bases, leave your answer as a fraction.

Exponential Form	Expanded Form	Standard Form
3^2	3×3	9
	$2 \times 2 \times 2 \times 2 \times 2 \times 2$	
4^5		
	$\frac{3}{4} \times \frac{3}{4}$	
	1.5×1.5	

2. Write five cubed in all three forms: exponential form, expanded form, and standard form.

3. Write fourteen and seven-tenths squared in all three forms.

4. One student thought two to the third power was equal to six. What mistake do you think he made, and how would you help him fix his mistake?

6TH GRADE SCIENCE MODULE 1: HEALTH OF ECOSYSTEMS

Distance Learning for April 13- April 29

Name:_____ Period:_____ Teacher:_____

INSTRUCTIONS FOR PARENTS AND STUDENTS: Students should spend about 30 minutes per day learning material in this packet and additional time reviewing material, working on projects, and explaining content to others at home to make sure students meet their learning objectives.

If you have questions: email your teacher or email Dr. Jennifer Miller (milleje3@tulsaschools.org) for help. You may also call your teacher or 918.925.1118 if you need help and do not have internet access.

GOAL: Evaluate competing design solutions for maintaining biodiversity and ecosystem services.

BIG QUESTION: **How can we protect biodiversity to maintain ecosystem services?**

STANDARD:

MS-LS2-5: You will evaluate designs for maintaining biodiversity and ecosystem services.

LEARNING OBJECTIVES:

By the end of this module (unit) you should be able to:

WEEK 1: APRIL 13-17

- ❏ Define biodiversity
- ❏ Explain how biodiversity helps determine health of an ecosystem
- ❏ Tell someone about biodiversity and what it means in an ecosystem
- ❏ Explain how small changes in biodiversity can cause large changes in an ecosystem
- ❏ Explain how a change in one part of the ecosystem can affect other parts of the ecosystem
- ❏ Explain and give examples of how resources humans need can be impacted by changes in biodiversity

WEEK 2: APRIL 20-24 **PROJECT!** And part of WEEK 3: APRIL 27-29

- ❏ Evaluate competing design solutions for maintaining biodiversity and ecosystem services
  - ❏ ecosystem services could include water purification,nutrient recycling, and prevention of soil erosion
  - ❏ design solution constraints could include scientific, economic, and social considerations
- ❏ Explain what problem (involving biodiversity and/or ecosystem services) is being solved by the given design solutions, including information about why biodiversity and/or ecosystem services are necessary to maintaining a healthy ecosystem
- ❏ Identify and describe the additional evidence (in the form of data, information, or other appropriate forms) that is relevant to the problem, design solutions, and evaluation of the solutions, including:
  - ❏ The variety of species (biodiversity) found in the given ecosystem.
  - ❏ Factors that affect the stability of the biodiversity of the given ecosystem.
  - ❏ Ecosystem services (e.g., water purification, nutrient recycling, prevention of soil erosion) that affect the stability of the system.

→ THIS PROJECT IS DUE ON WEDNESDAY, APRIL 29! ←

WEEK 1: APRIL 13-17

BIODIVERSITY:

Biodiversity refers to the variety of living species on Earth, including plants, animals, bacteria, and fungi. While Earth's biodiversity is so rich that many species have yet to be discovered, many species are being threatened with extinction due to human activities, putting the Earth's magnificent biodiversity at risk.

grasshoppers:
Although all of these insects have a similar structure and may be genetic cousins, the beautiful variety of colors, shapes, camouflage, and sizes showcase the level of diversity possible even within a closely-related group of species.

PHOTOGRAPH BY FRANS LANTING

Biodiversity is the term used to describe the enormous variety of life on Earth. It can be used more specifically to refer to all of the species in one region or ecosystem. Biodiversity refers to every living thing, including plants, bacteria, animals, and humans. Scientists have estimated that there are around 8.7 million species of plants and animals in existence. However, only around 1.2 million species have been identified and described so far, most of which are insects. This means that millions of other organisms remain a complete mystery.

Scientists are interested in how much biodiversity there is on a global scale, given that there is still so much biodiversity to discover. They also study how many species exist in single ecosystems, such as a forest, grassland, tundra, or lake. A single grassland can contain a wide range of species, from beetles to snakes to antelopes. Ecosystems that host the most biodiversity tend to have ideal environmental conditions for plant growth, like the warm and wet climate of tropical regions. Ecosystems can also contain species too small to see with the

naked eye. Looking at samples of soil or water through a microscope reveals a whole world of bacteria and other tiny organisms.

All of the Earth's species work together to survive and maintain their ecosystems. For example, the grass in pastures feeds cattle. Cattle then produce manure that returns nutrients to the soil, which helps to grow more grass. This manure can also be used to fertilize cropland. Many species provide important benefits to humans, including food, clothing, and medicine.

Much of the Earth's biodiversity, however, is in jeopardy due to human consumption and other activities that disturb and even destroy ecosystems. The demand of people wanting more and more stuff has a devastating effect on biodiversity . Also, as the human population continues to grow at very fast rates, we use up valuable resources, like wood and other plants and fish and other animals, faster than they can be replaced.

Habitats are lost as we take over land for homes, factories, and farms. We overuse pesticides and fertilizers, polluting our rivers, lakes, and oceans. As we move around, we disturb the balance of ecosystems and we introduce invasive species from other places, pushing out native species and changing ecosystems. Pollution, climate change, and population growth are all threats to biodiversity. These threats have caused an unprecedented rise in the rate of species extinction. Some scientists estimate that half of all species on Earth will be wiped out within the next century. Conservation efforts are necessary to preserve biodiversity and protect endangered species and their habitats.

Check for Understanding:

1. What is biodiversity?

2. What living things are included in the biodiversity of Earth?

3. Which organism accounts for most of the species on Earth?

4. If you decide to become a botanist (someone who studies plants) what evidence in the reading above proves that you might be able to discover a new species of plant?

5. What are some resources (Ecosystem services) that biodiversity provides to humans?

6. What are some factors that threaten biodiversity on Earth?

7. Review the paragraph beginning with “All the Earth’s species” in the reading above. In the space below, create a flowchart that shows the factors working together in this ecosystem.

8. What would occur to the system you created above if one of the living factors in your flowchart above becomes endangered? Explain your answer.

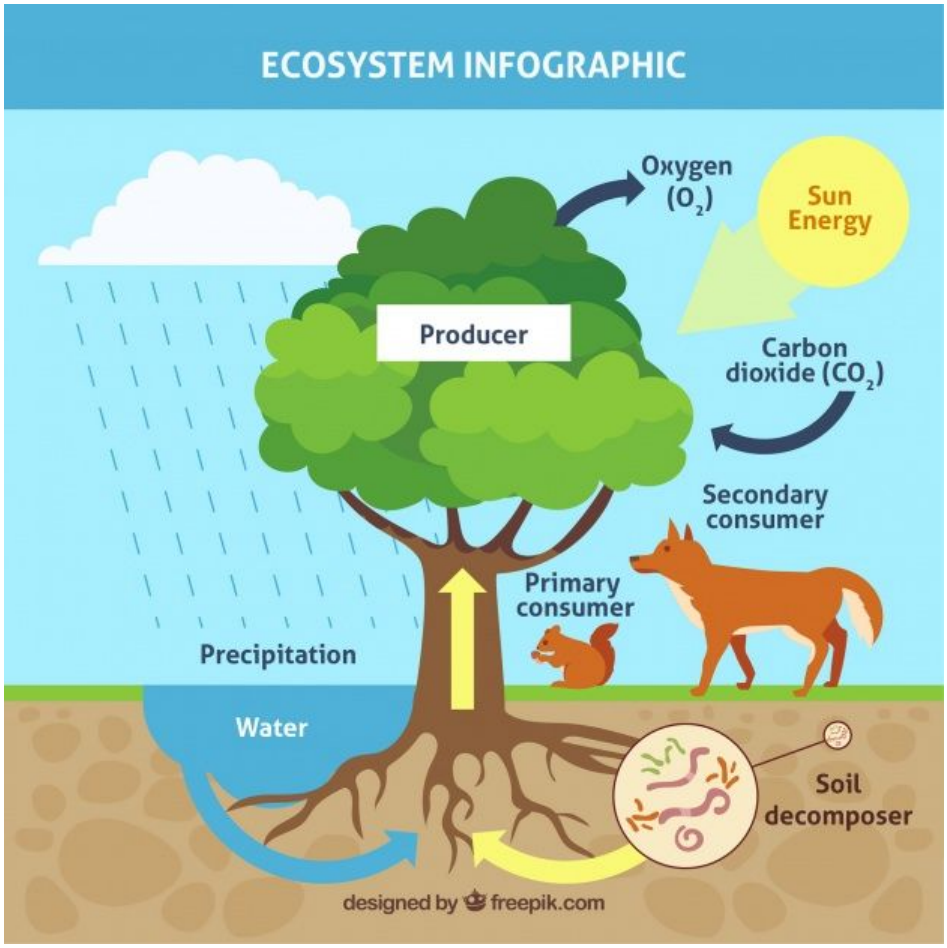
BIODIVERSITY AND ECOSYSTEM HEALTH:

Biodiversity boosts ecosystem productivity where each species, no matter how small, has an important role to play. For example, a larger number of plant species means a greater variety of crops, greater species diversity ensures natural sustainability for all forms of life, and healthy ecosystems can better withstand and recover from a variety of disasters.

Healthy ecosystems need a healthy balance of living things. For example, plants need sunlight, rain, and healthy soil full of nutrients. Insects like bees and ants feed on plants. They also help the plants make seeds by bringing pollen from flower to flower. Animals like deer, rabbits, and grasshoppers eat the plants too. And their poop returns nutrients to the soil, making it a healthy place for plants to grow.

But if there were too many hungry animals, they would eat up all the plants! Fortunately, carnivorous animals like snakes, foxes, jaguars, and even some insects keep the plant eaters in check by eating them.

Let's examine one ecosystem that can be found in Oklahoma:



Check for Understanding:

6. What living things contribute to the biodiversity in the ecosystem in the image?

7. An oil company purchases land in the Oklahoma ecosystem depicted above. To prepare to extract oil from the land using fracking, the land is cleared of trees. What impact will this have on each of the biotic (living) and abiotic (nonliving) factors of this ecosystem? If you think it has no effect on a factor, write "no effect."
    a. Coyote

    b. Squirrel

    c. Decomposers

    d. Air

    e. Water

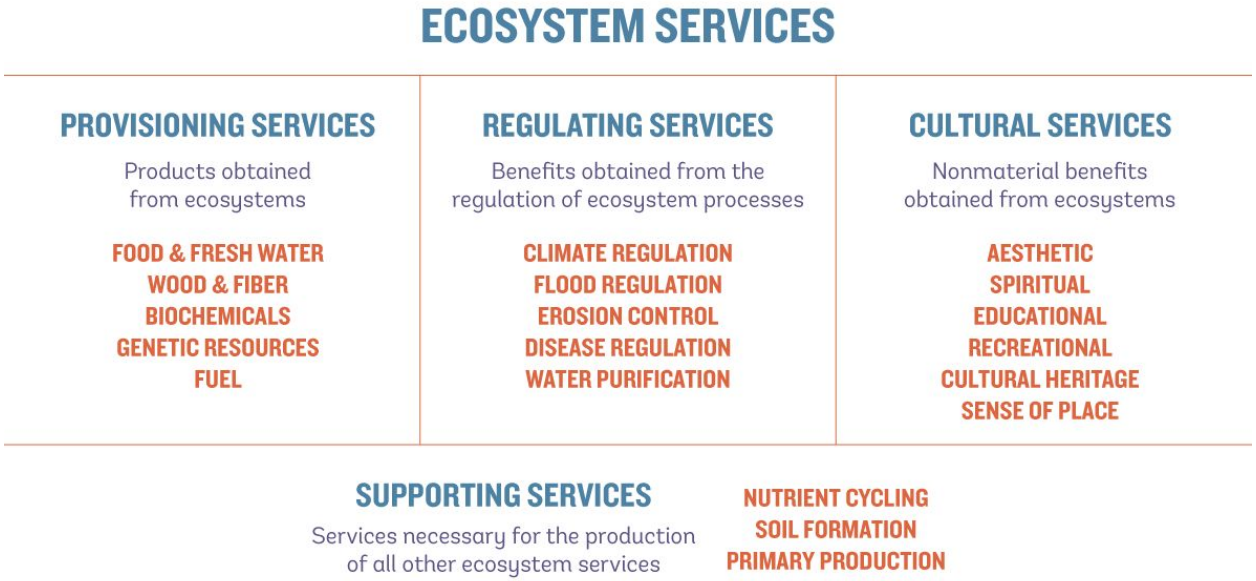
    f. Soil/grass

8. What will happen to the biodiversity of this ecosystem? Explain your answer.

9. Oklahoma experiences heavy rains during spring. How would these heavy rains affect Oklahomans now that the land has been cleared for fracking? Explain your answer.

Threats to Ecosystem Services:

Ecosystem services are the benefits people obtain from ecosystems, including those benefits that people perceive and those they do not perceive. Ecosystem services are classified into four groups of services: Provisioning, Regulating, Cultural, and Supporting.



Business and human activities can be direct threats to ecosystems, biodiversity and ecosystem services. They can cause destruction, degradation, and the impairment of biodiversity and other natural resources. Ecosystem threats include (1) climate change, (2) pollution, (3) habitat destruction, (4) overexploitation, and (5) introduction of invasive species.

Climate change is one of the greatest threats to sustainability. Over the last two centuries, rapid industrialization and the corresponding increased burning of fossil fuels and deforestation of large tracts of land globally has caused the concentrations of greenhouse gases to increase significantly in our atmosphere. *Pollution* is the contamination, harm, or disruption of the natural environment through the emissions of harmful substances. Pollution is most typically associated with human activity but can also occur from natural activity, such as volcanic eruptions. Pollution can impact air, water, and land. Pollutants include domestic, industrial, and agricultural waste. It comes in many different forms and can be chemical substances or noise, heat, or light. *Habitat destruction* brought on by the activity of humans threatens resident species and ecosystems. Two examples of habitat destruction are deforestation and desertification. Deforestation occurs when a forest or stand of trees is removed, converting the land to a non forest use. This changes the ecosystem drastically and results in a dramatic loss of biodiversity. Deforestation can be the result of timber harvesting or of clearing land for agricultural, commercial, or residential use. The loss of biodiversity and trees alters the ecosystem and can result in aridity and erosion. It also results in climate change and extinction, and it can lead to desertification if on a significant enough scale. The social impacts can include displacement of indigenous peoples. Desertification is the degradation of land quality and features low biodiversity, dry conditions, and poor soil quality. Deserts are formed through

both natural processes and human activity. However, desertification is occurring at a greater rate than past geological time scales due to human activity. *Overexploitation* is the consumption of a natural resource at a rate greater than that natural resource can maintain itself. Overhunting of species is one of the clearest examples of overexploitation, but there are other forms. *Invasive species* are brought on by transporting species either intentionally or accidentally from other areas of the world. This can be devastating to existing species as invasive species are introduced on a timescale much more quickly than typically would happen with evolution over longer time periods. This can include outcompeting native species in the ecosystem, leading to the decline or extinction of local species, and overpopulation as these invasive species may not have any predators in this new ecosystem. They also can be a major economic cost.

Check for understanding:

10. Give one specific example of an ecosystem service and how it is used to benefit humans in each of the four categories below.
    (example: Provisioning-Fiber-*cotton for clothes*)
    a. Provisioning:

    b. Regulating:

    c. Cultural:

    d. Supporting:

11. What are the five direct threats to ecosystem services? Summarize each threat.

12. Think about it. What could you do to help preserve biodiversity in ecosystems to preserve ecosystem services? Explain how this would help.

WEEK 2: APRIL 20-24 AND PART OF WEEK 3: APRIL 27-29

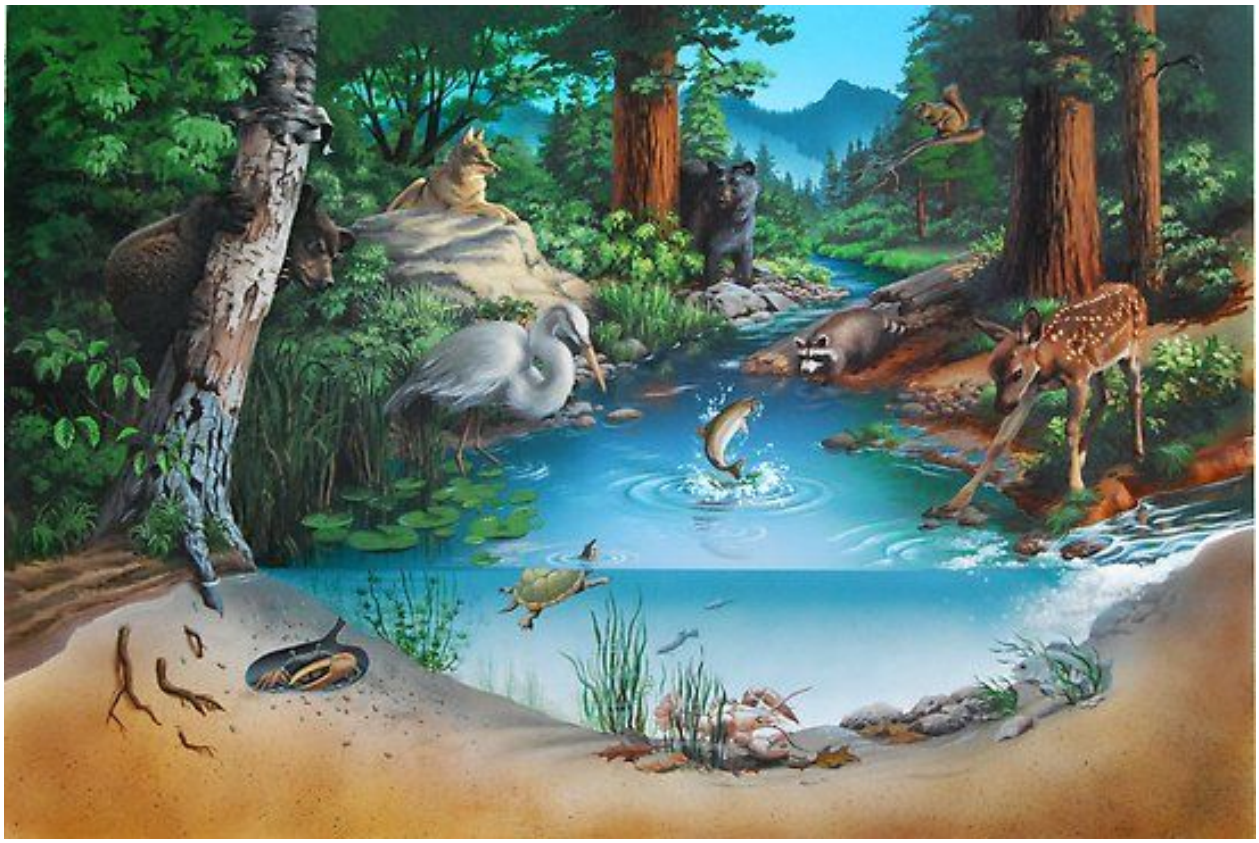
PROJECT:

Your task is to evaluate two different strategies for protecting biodiversity to sustain ecosystem resources.

Emerald Ash Borer

Emerald Ash Borer (adult)

Emerald Ash Borer (larvae)



Ecosystem containing ash trees

The Emerald ash borer (EAB), Agrilus planipennis Fairmaire, is an exotic beetle that was discovered in southeastern Michigan near Detroit in the summer of 2002. The adult beetles nibble on ash tree foliage but cause little damage. The larvae (the immature stage) feed on the inner bark of ash trees, disrupting the tree's ability to transport water and nutrients. Emerald ash borer probably arrived in the United States on solid wood packing material carried in cargo ships or airplanes originating in its native Asia. As of October 2018, it is now found in 35 states, and the Canadian provinces of Ontario, Quebec, New Brunswick, Nova Scotia and Manitoba. The EAB is now found in much of the eastern and central United States including northeastern Oklahoma. EAB is now considered the most destructive forest pest ever seen in North America.

Since its discovery, EAB has:

- Killed hundreds of millions of ash trees in North America.
- Caused regulatory agencies and the USDA to enforce quarantines and fines to prevent potentially infested ash trees, logs or hardwood firewood from moving out of areas where EAB occurs.
- Cost municipalities, property owners, nursery operators and forest products industries hundreds of millions of dollars.

The Oklahoma Forestry Service has provided strategies for preventing the infestation of the EAB. You will evaluate the effectiveness of two of these strategies.

Strategy 1:
Since the discovery of the emerald ash borer in 2002, eradication efforts have been implemented in an attempt to eliminate or contain the spread of this invasive beetle. The eradication protocol called for the removal of every ash tree within a 0.8 km radius around an infested tree. Reducing the number of ash trees available to the insect reduces the number of opportunities for the developing EAB population, and might even play a role in causing a growing population to be steered away from moving in a certain direction.

Strategy 2:
If your tree is in the infested area, a professional arborist can evaluate the tree for potential insecticide treatment. The efficacy of a specific insecticide depends on factors such as tree health, tree age, pest population, site conditions, and frequency of application. Insecticide applications must be performed by a certified pesticide applicator holding an active commercial license with the Agency of Agriculture.

Instructions for this project:
To evaluate these two different strategies for protecting biodiversity to sustain ecosystem resources you will construct a paper, speech, media file, etc. to:

1. Explain what problem (involving biodiversity and/or ecosystem services) is being solved by the given design solutions, including information about why biodiversity and/or ecosystem services are necessary to maintaining a healthy ecosystem
2. Identify and describe the additional evidence (in the form of data, information, or other appropriate forms) that is relevant to the problem, design solutions, and evaluation of the solutions, including:
    a. The variety of species (biodiversity) found in the given ecosystem.
    b. Factors that affect the stability of the biodiversity of the given ecosystem.
    c. Ecosystem services that affect the stability of the system.
3. Examine constraints including scientific, economic, and social considerations

This project is due no later than Wednesday, April 29.

Reflection:

Review the learning objectives at the beginning of this lesson. What level of understanding do you feel you have of the standard?

Standard MS-LS2-5	Level of Understanding (Mastery-proficient-progressing-rudimentary)	Reason for Level Chosen, be specific about the things you know well and what you struggle with.
You will evaluate designs for maintaining biodiversity and ecosystem services.		

END OF MODULE 1! Good work!

6th Grade, Social Studies, At Home Activities and Resources

Directions: Students can spend time twice a week on Social Studies. Activities 1-3 and 9-11 are shorter activities, numbers 4-6 can be done over multiple days.

Activity 1	Studies Weekly	*Studies Weekly* is the curricular resource for students in grades K-6. It is a newspaper-like reading with activities for students to complete. Parents and students can sign up for a free digital trial of Studies Weekly for 90 days. Sign up for *SS Weekly* and select an article to read. https://app.studiesweekly.com/online/free_trial
Activity 2	The Smithsonian Tween Tribune	The Smithsonian Tween Tribune website has articles on a variety of topics with questions and quizzes at the end for students to complete. At the top of each article are different Lexile scores, the lower the score the easier the reading. https://www.tweentribune.com/
Activity 3	Time for Kids	Time for Kids website- this has digital articles, videos, and some assessments, often with information in Spanish. The resources are available for students in grades Kindergarten to 6th. There are free resources available. https://www.timeforkids.com/
Activity 4	Diary of a Revolutionary	Pretend you are a colonist or soldier during the Revolutionary War and write a page-long diary entry about your life. Include what you might have experienced during that time.
Activity 5	Oral History	Interview a family or community member to write, or draw, an oral history. Ask about a historical event (including questions such as who, what, when, where, why and how). Ask how the historical event impacted the life of the person they are interviewing.

Activity 6	Letter to a Government Official	Write a letter to a government official- such as the mayor of Tulsa, a tribal leader, the Oklahoma governor, or the President. Identify a major issue and what you would like the government leader to do to help. Include important facts that support your ideas.
Activity 7	This Day in History	Go to the People History website and research some of the important events that happened today in a different year! Summarize the event and also compare and contrast today's world with what you learned. http://www.thepeoplehistory.com/this-day-in-history.html
Activity 8	Home Map & Scavenger Hunt	First, make a map of your home. Next, divide it up into a grid and use cardinal directions(north, south, east, west) to label each section of the grid. Then leave clues on pieces of paper in different parts of the grid that lead the student to the next clue. The hunt should end in a specific object or a piece of candy. For example, the first piece of paper would say, "look under the chair that's in the SE square of the home." Then under the chair would be another piece of paper that says, "look inside the shoe that's in the NW part of the home." And so on, until all the hidden clues are found.
Activity 9	Comparing Memories and Stories	Think about a specific memory you have with your family. Summarize the specific memory. Now, interview each family member about the same memory. Detail the account of each person and compile all the information you can. In the end, examine the final body of work. Compare and contrast the different accounts about the same event. Why are there differences? What made similarities possible? What does this tell us about larger historical events? How will this impact how you analyze other parts of history or current events?
Activity 10	What a Time!	Did you know that you are living through a historic time? In future decades, like the 2030s, researchers will research the COVID-19 pandemic.. They will look to primary sources, first-hand accounts or other data

		sources to learn how people were affected by this pandemic. To support them: 1. Write down what news you are hearing every day, noting the changes that are taking place, for one week. 2. Provide your perspective and personal experiences to the news you are hearing. 3. Interview at least three (3) people that are older than you about their experience. Identify the similarities and differences in how they have reacted.
Activity 11	Hero Research	Who is your hero? How did they become your hero? Research this person and figure out how they became who they are. Summarize your investigation.