7th Grade FUESD Independent Study Plan, Week of May 18th

Week 9 Monday/ lunes	Tuesday/ martes	Wednesday/ miercoles	Thursday/ jueves	Friday/viernes
ELA • Read 30 minutes independently • 1 Lexia/or Reading Plus Lesson • Read: *The House on Mango Street:Laughter* • Complete The Text Dependent Questions Science • Read *Technological Advances in Documenting Earthquakes* • Quiz ELD/Social Studies • ELD Monday • Read *Black Death Pottery* • Work on the Google Slides Presentation or One Pager (NOT BOTH) Math • 1 Dreambox or ST Lesson • Mid Chapter Check • Mid Chapter Check Answer Sheet PE • PE Week 9 Leadership Activities: • Coping with Emotions • SEL Managing Emotions	ELA • Read 30 minutes independently • 1 Lexia/or Reading Plus Lesson • Complete Complex and Compound Complex Sentences Science • Read *Technological Advances in Documenting Earthquakes* • Work on the Text Dependent Question ELD/Social Studies • ELD Tuesday • Read *Black Death Pottery* • Work on the Google Slides Presentation or One Pager (NOT BOTH) Math • 1 Dreambox or ST Lesson • Multiplying Fractions Notes • Multiplying Fractions Practice • Multiplying Fractions Answer Sheet • PE • PE Week 9 Leadership Activities: • Coping with Emotions • SEL Managing Emotions	ELA • Read 30 minutes independently • 1 Lexia/or Reading Plus Lesso • Read *The House on Mango Street: Gil's Furniture Bought and Sold* • Complete The Text Dependent Questions Science • Read *Puerto Rico Earthquake* • Quiz ELD/Social Studies • ELD Wednesday • Read *Primary Source: The Black Death* • Work on the Google Slides Presentation or One Pager (NOT BOTH) Math • 1 Dreambox or ST Lesson • Dividing Fractions Notes • Dividing Fractions Practice • Dividing Fractions Answer Sheet PE • PE Week 9 Leadership Activities: • Coping with Emotions • SEL Managing Emotions	ELA • Read 30 minutes independently • 1 Lexia/or Reading Plus Lesson • Complete Different Kinds of Sentences Worksheets Science • Read *Puerto Rico Earthquake* • Work on the Text Dependent Question ELD/Social Studies • ELD Thursday • ReadPrimary Source: The Black Death • Work on the Google Slides Presentation or One Pager (NOT BOTH) Math • 1 Dreambox or ST Lesson • Mixed Practice Murder Mystery • Murder Mystery Answer Sheet PE • PE Week 9 Leadership Activities: • Coping with Emotions • SEL Managing Emotions	ELA • Read 30 minutes independently • 1 Lexia/or Reading Plus Lesson • Read: *The House on Mango Street: Meme Ortiz* • Complete The Text Dependent Questions Science • Six Word Summary on either article ELD/Social Studies • ELD Friday • Finish the Google Slides Presentation or One Pager (NOT BOTH) Math • 1 Dreambox or ST Lesson • Mixed Practice Color by Number Extension • Menu Choice Board PE • PE Week 9 Leadership Activities: • Coping with Emotions • SEL Managing Emotions

7 Grado - Plan de Estudio independiente de FUESD - 18 de mayo

Semana 9 Monday/ lunes	Tuesday/ martes	Wednesday/ miercoles	Thursday/ jueves	Friday/viernes
ELA/ SS • Leer 30 minutos independiente(registro de lectura) • 1 Lexia/o Leccion de Reading Plus • Leer *The House on Mango Street:My Name* • Contestar las preguntas de comprensión Ciencias • Lee el documento Technological Advances in Documenting Earthquakes • Contesta las preguntas de comprensión ELD/SS • ELD lunes • Lee el documento *Black Death Pottery* • Trabaja en la presentación de Google Slides or el trabajo de una página (escoge uno) Matematicas • 1 Dreambox or ST Lesson • Mid Chapter Check • Mid Chapter Check Answer Sheet PE • Fisica semana 9 Actividades de "Leadership": • Coping with Emotions • SEL Managing Emotions	ELA/ SS • Leer 30 minutos independiente(registro de lectura) • 1 Lexia/o Leccion Reading Plus • Complete la pagina de Complex and Compound Complex Sentences Ciencia • Lee el documento Technological Advances in Documenting Earthquakes • Contesta las preguntas de comprensión ELD/SS • ELD martes • Lee el documento *Black Death Pottery* • Trabaja en la presentación de Google Slides or el trabajo de una página (escoge uno) Matematicas • 1 Dreambox or ST Lesson • Multiplying Fractions Notes • Multiplying Fractions Practice • Multiplying Fractions Answer Sheet PE • Fisica semana 9 Actividades de "Leadership": • Coping with Emotions • SEL Managing Emotions	ELA • Leer 30 minutos independiente(registro de lectura) • 1 Lexia/o Leccion Reading Plus • Leer Read *The House on Mango Street:Cathy Queen of Cats* • Contestar las preguntas de comprensión Ciencia • Lee el documento Puerto Rico Earthquake • Contesta las preguntas de comprensión ELD/SS • ELD miércoles • Lee el documento *Primary Source: The Black Death* • Trabaja en la presentación de Google Slides or el trabajo de una página (escoge uno) Matematicas • 1 Dreambox or ST Lesson • Dividing Fractions Notes • Dividing Fractions Practice • Dividing Fractions Answer Sheet PE • Fisica semana 9 Actividades de "Leadership": • Coping with Emotions • SEL Managing Emotions	ELA/Science • Leer 30 minutos independiente(registro de lectura) • 1 Lexia/o Leccion Reading Plus • Complete la pagina de Different Kinds of Sentences Ciencia • Lee el documento Puerto Rico Earthquake • Contesta las preguntas de comprensión ELD/SS • ELD jueves • Lee el documento *Primary Source: The Black Death* • Trabaja en la presentación de Google Slides or el trabajo de una página (escoge uno) Matematicas • 1 Dreambox or ST Lesson • Mixed Practice Murder Mystery • Murder Mystery Answer Sheet PE • Fisica semana 9 Actividades de "Leadership": • Coping with Emotions • SEL Managing Emotions	ELA/Science • Leer 30 minutos independiente(registro de lectura) • 1 Lexia/o Leccion Reading Plus • Leer Read: *The House on Mango Street: Our Good Day* • Contestar las preguntas de comprensión Ciencia • Escoge un documento y escribe un resumen de 6 palabras ELD/SS • ELD viernes • Termina la presentación de Google Slides or el trabajo de una página (escoge uno) Matematicas • 1 Dreambox or ST Lesson • Mixed Practice Color by Number Extension • Menu Choice Board PE • Fisica semana 9 Actividades de "Leadership": • Afila la sierra • Coping with Emotions • SEL Managing Emotions

The House on Mango Street Text Dependent Questions

Use the RACE strategy to answer the following questions. Type your answers in the boxes below. The boxes will expand as you type. '

Monday: *Laughter*

1. In what ways is Esperanza's sister, Nenny, similar to Esperanza?

2. This is an episodic novel written in small vignettes or literary sketches. What observation about family do you think Cisneros is making in this chapter?

Wednesday: *Gil's Furniture Bought and Sold*

1. What are the "gold glasses floating in the dark"?

2. In what way is Esperanza both disappointed in the music box Nenny finds and delighted with it? To what extent may the box be considered a metaphor for Esperanza's neighborhood?

3. Why do you think the old man does not want to sell the music box?

4. Contrast Nenny's behavior toward the man who owns the junk shop with Esperanza's. Why doesn't Esperanza talk to the old man?

Friday: *Meme Ortiz*

1. Why do you think Meme and his dog both have two names?

2. Support or refute the following statement: The huge tree in Meme's backyard is a metaphor describing how the outside world views Esperanza's neighborhood. What can the red balls represent?

3. What does the following passage from the story suggest about Meme's character? "This is the tree we chose for the First Annual Tarzan Jumping Contest. Meme won. And broke both arms."

The House on Mango Street

by Sandra Cisneros

Laughter

Nenny and I don't look like sisters ... not right away. Not the way you can tell with Rachel and Lucy who have the same fat popsicle lips like everybody else in their family. But me and Nenny, we are more alike than you would know. Our laughter for example. Not the shy ice cream bells' giggle of Rachel and Lucy's family, but all of a sudden and surprised like a pile of dishes breaking. And other things I can't explain. One day we were passing a house that looked, in my mind, like houses I had seen in Mexico.

I don't know why. There was nothing about the house that looked exactly like the houses I remembered. I'm not even sure why I thought it, but it seemed to feel right.

Look at that house, I said, it looks like Mexico.

Rachel and Lucy look at me like I'm crazy, but before they can let out a laugh, Nenny says: Yes, that's Mexico all right. That's what I was thinking exactly.

The House on Mango Street

by Sandra Cisneros

Gil's Furniture Bought & Sold

There is a junk store. An old man owns it. We bought a used refrigerator from him once, and Carlos sold a box of magazines for a dollar. The store is small with just a dirty window for light. He doesn't turn the lights on unless you got money to buy things with, so in the dark we look and see all kinds of things, me and Nenny. Tables with their feet upside-down and rows and rows of refrigerators with round corners and couches that spin dust in the air when you punch them and a hundred TV's that don't work probably. Everything is on top of everything so the whole store has skinny aisles to walk through.

You can get lost easy.

The owner, he is a black man who doesn't talk much and sometimes if you didn't know better you could be in there a long time before your eyes notice a pair of gold glasses floating in the dark. Nenny who thinks she is smart and talks to any old man, asks lots of questions. Me, I never said nothing to him except once when I bought the Statue of Liberty for a dime.

But Nenny, I hear her asking one time how's this here and the man says, This, this is a music box, and I turn around quick thinking he means a pretty box with flowers painted on it, with a ballerina inside. Only there's nothing like that where this old man is pointing, just a wood box that's old and got a big brass record in it with holes. Then he starts it up and all sorts of things start happening. It's like all of a sudden he let go a million moths all over the dusty furniture and swan-neck shadows and in our bones. It's like drops of water. Or like marimbas only with a funny little plucked sound to it like if you were running your fingers across the teeth of a metal comb.

And then I don't know why, but I have to turn around and pretend I don't care about the box so Nenny won't see how stupid I am. But Nenny, who is stupider, already is asking how much and I can see her fingers going for the quarters in her pants pocket.

This, the old man says shutting the lid, this ain't for sale.

The House on Mango Street

by Sandra Cisneros

Meme Ortiz

Meme Ortiz moved into Cathy's house after her family moved away. His name isn't really Meme. His name is Juan. But when we asked him what his name was he said Meme, and that's what everybody calls him except his mother.

Meme has a dog with gray eyes, a sheepdog with two names, one in English and one in Spanish. The dog is big, like a man dressed in a dog suit, and runs the same way its owner does, clumsy and wild and with the limbs flopping all over the place like untied shoes.

Cathy's father built the house Meme moved into. It is wooden. Inside the floors slant. Some rooms uphill. Some down. And there are no closets. Out front there are twenty-one steps, all lopsided and jutting like crooked teeth (made that way on purpose, Cathy said, so the rain will slide off), and when Meme's mama calls from the doorway, Meme goes scrambling up the twenty-one wooden stairs with the dog with two names scrambling after him.

Around the back is a yard, mostly dirt, and a greasy bunch of boards that used to be a garage.

But what you remember most is this tree, huge, with fat arms and mighty families of squirrels in the higher branches. All around, the neighborhood of roofs, black-tarred and A-framed, and in their gutters, the balls that never came back down to earth. Down at the base of the tree, the dog with two names barks into the empty air, and there at the end of the block, looking smaller still, our house with its feet tucked under like a cat.

This is the tree we chose for the First Annual Tarzan Jumping Contest. Meme won. And broke both arms.

Lesson 5
Complex and Compound-Complex Sentences

CCSS
L.7.1b: Choose among . . . complex [and] compound-complex sentences to signal differing relationships among ideas.

Introduction A **clause** is a group of words with both a subject and a predicate. An **independent clause** can stand alone; a **dependent clause** cannot. A dependent clause usually begins with a **subordinating conjunction** such as *while*, *because*, or *although* or a **relative pronoun** such as *who*, *that*, or *which*.

- A **complex sentence** has an independent clause and at least one dependent clause.

  While many people enjoy music, some scientists think that it also makes them smarter.

  Scientists have done studies that suggest a link between music and reading skills.

- A **compound-complex** sentence has at least two independent clauses joined by a **coordinating conjunction**, as well as one or more dependent clauses.

  Scientists have made some important discoveries about music, and this research has encouraged people who want school music programs to continue.

Guided Practice **Identify each sentence type by writing *complex* or *compound-complex*. Underline the dependent clause or clauses in each sentence.**

Hint

Remember: A complex sentence has one independent clause. A compound-complex sentence has at least two independent clauses. Both types of sentences have at least one dependent clause.

1. Researchers have found interesting connections between music and brain activity, although the results are not final.

   _____

2. When college students in one study had received musical training before age 12, they were able to remember more words from a list than students who had not received training. _____

3. In another study, students had higher reading scores after seven months if they had received daily music lessons, and their scores remained high after a year. _____

4. Most schools do not want to cut music programs, but some schools have no choice because they do not have enough money.

   _____

Common Core Practice

For numbers 1–4, choose the sentence that answers each question.

Answer Form

1 Ⓐ Ⓑ Ⓒ Ⓓ
2 Ⓐ Ⓑ Ⓒ Ⓓ
3 Ⓐ Ⓑ Ⓒ Ⓓ
4 Ⓐ Ⓑ Ⓒ Ⓓ

Number Correct ___/4

1 Which of these is a complex sentence?

A Schools have had to cut not only music but also art.

B Many students love music, and most of them like art.

C Teachers value music and art, and many have fought to keep these programs.

D While some children take private music lessons, many students can't afford them.

2 Which of these is a compound-complex sentence?

A Some schools have found ways to offer music instruction to their students.

B These schools receive money from outside organizations that donate money.

C A foundation is an organization that raises money for causes, and some foundations focus on music programs.

D Music may raise students' test scores, so these foundations see music programs as an investment in the future.

3 Which of these is a complex sentence containing more than one dependent clause?

A A foundation in Tennessee bought musical instruments for students in Memphis who could not pay for their own instruments.

B Only ten percent of families in the Memphis City Schools could afford to rent an instrument, so the foundation provided the money.

C During the next eight years, the school district was voted one of the "Best Communities for Music Education in America" four times!

D Because the foundation believed in the importance of music, all students in Memphis now have access to instruments, which has changed children's lives.

4 Which is the **best** way to combine the sentences into a compound-complex sentence?

Music relaxes some people. Other people get energy from music. Music increases their heart rate.

A Music relaxes some people and gives other people energy and increases their heart rate.

B Music relaxes some people, but other people get energy from music because it increases their heart rate.

C Music relaxes people, and it increases their heart rate while it gives energy to them.

D Because music relaxes some people and it gives energy to others, music increases their heart rate.

Lesson 6
Using Different Kinds of Sentences

CCSS
L.7.1b: Choose among simple, compound, complex, and compound-complex sentences to signal differing relationships among ideas.

Introduction Building your sentences in different ways can help you eliminate wordiness and make clear connections between ideas. There are four basic types of sentences:

Type	Definition	Example
Simple	has one **independent** clause	Jousting was a medieval sport.
Compound	has two or more **independent** clauses	Medieval knights had to be experts in battle, and jousting was one way to prepare for battle.
Complex	has one **independent** clause and one or more **dependent** clauses	Although jousting was a form of entertainment, it also let knights practice important skills.
Compound-complex	has two or more **independent** clauses and one or more **dependent** clauses	Jousting wasn't as dangerous as combat, but a knight could still be hurt when he fell off his horse.

Varying the sentence types when you write can also make your writing more interesting to read.

Guided Practice **Underline the independent clause or clauses in each sentence. Then write *simple*, *compound*, *complex*, or *compound-complex* to identify the sentence type.**

Hint

The independent and dependent clauses in a complex or compound-complex sentence may be in any order. For instance, the dependent clause may come first.

Example:
While a knight had to be brave, he also had to be respectful, and he had to be loyal to his king.

1. A knight's training began early in life, and it ended in the knight's teenage years. _____

2. Jousts kept knights in great condition for real battles.

   _____

3. When spectators attended jousts, they often rooted for a favorite knight. _____

4. Although jousts often ended in bloodshed, the matches were a popular part of life, and townspeople regularly gathered to watch these events. _____

5. Jousting competitions were usually part of a larger tournament that included other events as well. _____

Common Core Practice

For numbers 1–4, choose the best way to combine the sentences to eliminate repetition and make the relationships between ideas clear.

Answer Form

1	Ⓐ	Ⓑ	Ⓒ	Ⓓ
2	Ⓐ	Ⓑ	Ⓒ	Ⓓ
3	Ⓐ	Ⓑ	Ⓒ	Ⓓ
4	Ⓐ	Ⓑ	Ⓒ	Ⓓ

Number Correct ___/4

1 Jousts could be dangerous. Often knights broke bones. This would happen even though knights wore armor.

A Although jousts could be dangerous, knights wore armor and still broke bones.

B Because knights wore armor, they broke bones, and jousts were still dangerous.

C Jousts could be dangerous, and although knights wore armor, they still often broke bones.

D Because jousts could be dangerous, knights broke bones, but knights wore armor.

2 Special lances for jousting had to be made to avoid serious injury. This was because battle lances were such dangerous weapons.

A Battle lances were such dangerous weapons that special lances for jousting had to be made to avoid serious injury.

B Special lances for jousting had to be made to avoid serious injury although battle lances were such dangerous weapons.

C Because the special lances for jousting had to be made to avoid serious injury, battle lances were dangerous weapons.

D Battle lances were such dangerous weapons because special lances for jousting had to be made to avoid serious injury.

3 Knights had many obligations and duties. They had to be strong and kind.

A Knights had to be strong and kind, but they had many duties and obligations.

B Knights had many duties and obligations, and they also had to be strong and kind.

C Knights had many duties and obligations because they had to be strong and kind.

D Although they had to be strong and kind, knights had many duties and obligations.

4 A knight had a hard life. He fought to honor his king both on and off the battlefield.

A A knight had a hard life, so he fought to honor his king both on and off the battlefield.

B Although he fought to honor his king both on and off the battlefield, a knight had a hard life.

C A knight had a hard life after he fought to honor his king both on and off the battlefield.

D Because he fought to honor his king both on and off the battlefield, a knight had a hard life.

Grammar Answer Sheet

Tuesday: Complex and Compound Complex Sentences

1.
2.
3.
4.

1.	
2.	
3.	
4.	

Thursday: Using Different Kinds of Sentences

1.
2.
3.
4.
5.

1.	
2.	
3.	
4.	

Week 9 Answer Sheet

Monday- Technological Advances in Documenting Earthquakes Quiz

1.	
2.	
3.	
4.	

Tuesday- Use the RACE strategy to answer the following question.

Choose a problem (and solutions) described in the text. Explain what the problem is and why it matters, using examples, facts, and details from the text. If possible, describe any solutions proposed in the text. Type your answer in the box.

Wednesday- Puerto Rican Left Homeless After Biggest Quake of the Century Quiz

1.	
2.	
3.	
4.	

Thursday- Use the RACE Strategy to answer the following question.

Make and support a claim about why someone should read this text. What makes this text worth reading? What will a reader gain or what might a reader do after reading this? Support your response with specific details from the text.

Friday- Choose one of the articles and write a 6 word summary. Make sure you use exactly SIX words to summarize the article of your choice.

Puerto Ricans left homeless after biggest quake in century

By Danica Coto, Associated Press, adapted by Newsela staff on 01.13.20
Word Count **896**
Level **MAX**

Image 1. A store owner and his son remove supplies from Ely Mer Mar hardware store, which partially collapsed after an earthquake hit Guanica, Puerto Rico, January 7, 2020. A magnitude 6.4 earthquake struck before dawn, killing one man, injuring others and bringing down buildings in the southern part of the island. Photo by: Carlos Giusti/AP Photo

GUANICA, Puerto Rico — Cars, cots and plastic chairs became temporary beds for hundreds of families who lost their homes in southwest Puerto Rico as a flurry of earthquakes struck the island, one of them the strongest in a century.

The magnitude 6.4 quake that struck before dawn on Tuesday, January 7, killed one person, injured nine others and knocked out power across the U.S. territory. More than 250,000 Puerto Ricans remained without water on Wednesday and another half a million without power, which also affected telecommunications.

In addition, more than 1,000 people were staying in government shelters in the island's southwest region as U.S. President Donald Trump declared an emergency and Puerto Rico Governor Wanda Vázquez activated the National Guard.

The hardest-hit municipality was the southwest coastal town of Guánica. More than 200 people had taken shelter in a gymnasium after a quake on Monday, only for the latest shake to damage that structure — forcing them to sleep outside.

Among them was 80-year-old Lupita Martínez, who sat in the dusty parking lot with her 96-year-old husband by her side. He was sleeping in a makeshift bed, a dark blue coat covering him.

"There's no power. There's no water. There is nothing. This is horrible," Martínez said.

The couple was alone, lamenting that their caretaker had disappeared and was not answering their calls. Like many Puerto Ricans affected by the quake, they had children on the U.S. mainland who urged them to move there, at least until the Earth stops shaking.

While officials said it was too early to estimate the total damage caused by the string of quakes that began the night of December 28, they said hundreds of homes and businesses in the southwest region were damaged or destroyed. Just in Guánica, a town of roughly 15,000 people, nearly 150 homes were affected by the quake, along with three schools, including one three-story structure whose first two floors were completely flattened.

In Guánica itself, "We are confronting a crisis worse than Hurricane Maria," said Mayor Santos Seda, referring to the 2017 storm that devastated the island. "I am asking for empathy from the federal government."

He said officials believe the homes of 700 families in his municipality are close to collapsing.

Tuesday's quake was the strongest to hit Puerto Rico since October 1918, when a magnitude 7.3 quake struck near the island's northwest coast, unleashing a tsunami and killing 116 people.

More than 950 quakes and aftershocks have been recorded in the area of Tuesday night's event since December 31, though most were too weak to be felt, according to the U.S. Geological Survey (USGS).

The USGS said that while it's virtually certain there will be many aftershocks in the next week, the chance of a magnitude 6 quake — similar to Tuesday's — or stronger is around 22 percent.

In Guánica, some people dragged mattresses outside their homes or set up small tents.

Authorities were trying to figure out where to shelter them all as they handed out blankets, food and water to families gathered at the gymnasium for a second night in a row. Many had their belongings in large garbage bags as they sat haphazardly on unstable plastic chairs. Some slept. Others cradled their dogs and many simply stared listlessly into the distance. One elderly man spent an entire day in his wheelchair, refusing to lay down on a cot.

Meanwhile, a handful of people slept in their cars, in chairs or on the ground as cots ran out.

"Now I'm afraid of the house," said 49-year-old Lourdes Guilbe as she wiped away tears and confided that she felt overwhelmed caring for the nearly dozen relatives gathered around her,

including her more than 90-year-old grandfather, who sat in a wheelchair wearing green pajamas and socks.

Guilbe said her home is cracked and her daughter's home collapsed, so they weren't sure where they would live in upcoming days.

Psychologists met with Guilbe and dozens of other people affected by the earthquakes, going door-to-door on Monday in affected neighborhoods and then visiting people in shelters on Tuesday. Among them was Dayleen Ortiz, who set up a speaker on the roof of her car to blast uplifting salsa music and provided crayons and paper to children and urged adults to shake their fears.

"There is a lot of uncertainty," she said. "We don't know if this is going to continue."

One young girl tapped Ortiz on her leg repeatedly: "I want to play beautician," she said.

Ortiz dug behind cases of water bottles, chairs and blankets in her car and produced eight small new nail polishes and the girl smiled wide. It's a trick the psychologist learned to entertain children after Hurricane Maria hit, causing an estimated 2,975 deaths and more than $100 billion in estimated damage.

Reconstruction has been slow, and the earthquake was the newest blow to an island where thousands of people have been living under blue tarps since the hurricane and the power grid remains fragile.

"I can't stand this," said 64-year-old Zenaida Rodríguez as she sat under a tree and the ground again rumbled. "Did you feel that?"

Quiz

1 Read the paragraph from the article.

> *Authorities were trying to figure out where to shelter them all as they handed out blankets, food and water to families gathered at the gymnasium for a second night in a row. Many had their belongings in large garbage bags as they sat haphazardly on unstable plastic chairs. Some slept. Others cradled their dogs and many simply stared listlessly into the distance. One elderly man spent an entire day in his wheelchair, refusing to lay down on a cot.*

Which of the following options BEST supports the idea the government has not yet determined how to deal with the devastation of the earthquake?

(A) Authorities were trying to figure out where to shelter them all as they handed out blankets, food and water to families gathered at the gymnasium for a second night in a row.

(B) Many had their belongings in large garbage bags as they sat haphazardly on unstable plastic chairs.

(C) Others cradled their dogs and many simply stared listlessly into the distance

(D) One elderly man spent an entire day in his wheelchair, refusing to lay down on a cot.

2 According to the article, victims of the earthquake suffered psychological harm.

Which paragraph BEST supports the idea outlined above?

(A) The magnitude-6.4 quake that struck before dawn on Tuesday killed one person, injured nine others and knocked out power across the U.S. territory. More than 250,000 Puerto Ricans remained without water on Wednesday and another half a million without power, which also affected telecommunications.

(B) The hardest-hit municipality was the southwest coastal town of Guánica. More than 200 people had taken shelter in a gymnasium after a quake on Monday, only for the latest shake to damage that structure — forcing them to sleep outside.

(C) The USGS said that while it's virtually certain there will be many aftershocks in the next week, the chance of a magnitude-6 quake — similar to Tuesday's — or stronger is around 22 percent.

(D) "Now I'm afraid of the house," said 49-year-old Lourdes Guilbe as she wiped away tears and confided that she felt overwhelmed caring for the nearly dozen relatives gathered around her, including her more than 90-year-old grandfather, who sat in a wheelchair wearing green pajamas and socks.

3 Which of these statements would be MOST important to include in an objective summary of the article?

(A) He was sleeping in a makeshift bed, a dark blue coat covering him.

(B) Tuesday's quake was the strongest to hit Puerto Rico since October 1918, when a magnitude-7.3 quake struck near the island's northwest coast, unleashing a tsunami and killing 116 people.

(C) Meanwhile, a handful of people slept in their cars, in chairs or on the ground as cots ran out.

(D) Among them was Dayleen Ortiz, who set up a speaker on the roof of her car to blast uplifting salsa music and provided crayons and paper to children and urged adults to shake their fears.

4 Read the following selection from the article.

> *In Guánica itself, "We are confronting a crisis worse than Hurricane Maria," said Mayor Santos Seda, referring to the 2017 storm that devastated the island. "I am asking for empathy from the federal government."*

Which central idea of the article is MOST supported by the selection above?

(A) Guánica is currently recovering from the devastation of Hurricane Maria.

(B) Guánica was less prepared for the earthquake than other towns.

(C) Guánica was the town that was hit hardest by the earthquake.

(D) Guánica is one of the largest cities on the island of Puerto Rico.

Technological advances in documenting earthquakes

By National Geographic Society, adapted by Newsela staff on 03.18.20
Word Count **1,075**
Level **1130L**

Image 1. A seismological earthquake monitoring station on volcano Vesuvio in Italy. These earthquake monitors send data about ground movements to a central station. Photo: angie7/Getty Images tk

As tectonic plates grind past each other, they can get stuck. The jagged edges of one chunk of rock lock on to another, causing stress to build up over time. If this stress overpowers the friction that holds the plates in place, they suddenly slip and move along a fault. Faults are fractures or breaks in the crust.

This movement releases an enormous amount of energy, causing an earthquake. The earthquake causes intense shaking and rolling motions in the ground as energy waves travel through Earth and along the surface. These waves, called seismic waves, can cause damage to buildings and loss of life.

Scientists are working to improve how earthquakes are recorded in order to better understand them. Someday, they might be able to predict when and where they will happen, which could

reduce the damage and loss of life they cause. Scientists use a seismometer to detect earthquakes and measure their intensity.

Dragon Seismometers

The first-known version of a seismometer was invented almost two thousand years ago by Chinese scientist Zhang Heng. Heng's earthquake detector was a 1.7-meter (5-1/2-foot) tall bronze vase. It had eight dragons decorating its perimeter. Each dragon faced one of the eight compass directions and held in its mouth a small bronze ball. Surrounding the bottom of the vase were eight frogs with their mouths facing up toward the dragons. When an earthquake occurred at a distant location, a ball would shake loose from the mouth of one of the dragons and drop into the mouth of the frog below it. The dragon that released the ball would indicate in which direction the earthquake had occurred.

Based on technology developed in the nineteenth century, modern seismometers have been continually improved, but they are expensive to install and operate. Scientists are looking to new technology to find less expensive and easier ways to measure earthquakes.

A typical seismometer consists of a weight that is suspended above a base firmly anchored to the ground. When the earth shakes, the base moves but the weight remains still. The movement of the base is recorded either on a moving strip of paper with a pen attached to the weight or electronically by a computer.

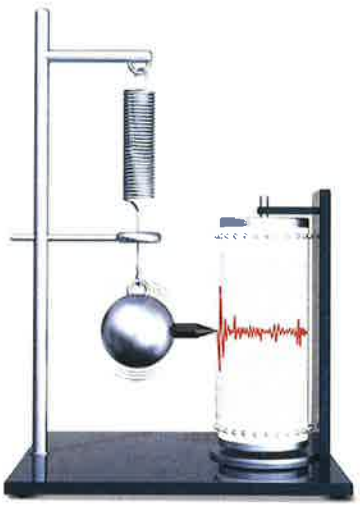
Recorded Motions

A seismogram is a graph from a seismometer that shows Earth's movements, and it provides a considerable amount of information. Scientists can determine the strength of the seismic waves by examining the size of the recorded motions.

Scientists can also calculate how far away the earthquake was when it occurred. They calculate this based on the difference in the arrival times of the first and second waves. By examining at least three seismograms from different locations around Earth, scientists can pinpoint the exact location of the earthquake. The earthquake's magnitude is the amount of energy it releases, and it is measured on a scale called the moment magnitude scale.

Scientist have set up seismic monitoring stations around the world, and these stations are connected on computer networks that allow scientists to share data. Many of these stations also

use sensitive GPS (global positioning system) receivers and other tools to measure changes in ground surface. These instruments let scientists see, in real time, how parts of Earth's surface move as the result of an earthquake.



Scientists cannot predict when earthquakes will occur, but they can issue an alert when seismometers detect the first waves from an earthquake. Alerts can give people precious seconds to find a safe place to ride out the quake.

Fiber-Optic Cable Readings

One new approach to detect earthquakes uses glass fiber-optic cables, which are cables that carry light. Scientists can watch for changes in how light travels through the cables. These changes occur because seismic waves passing through a section of the cable cause the cable to stretch or contract. This changes the time it takes the light to pass through the cable.

Another way to collect seismic data uses inexpensive ground-motion sensors connected to cellphone electronics. These sensors are installed in many different locations and send data on ground movements to a central station. Because of the low cost, scientists could install many of these units to make a complete network.

Another way that cellphones are being used to monitor earthquakes is with smartphone apps. One app, called MyShake, uses GPS and the motion detectors already in smartphones to gather and send data on earthquakes. The more citizen scientists who download and install the app, the more data on earthquakes scientists will have.

Predicting Aftershocks

Some scientists are using social media to learn where earthquakes are happening and what damage they are causing.

Scientists are also using new technology to study aftershocks, which are smaller earthquakes that occur after the initial, large earthquake, or mainshock. Aftershocks may occur for days or even weeks after the mainshock and can also result in extraordinary damages. They may occur on the same fault as the mainshock or on a nearby fault.

Scientists are using new technology to try to predict where aftershocks will occur. They have trained computers to forecast aftershock locations without knowing anything about existing faults.

Today, computers collect huge amounts of earthquake data and can analyze it quickly. By looking at very large data sets, computers can find patterns and connections that humans cannot. They can learn what data is important, and which factors influence certain outcomes. This is called artificial intelligence (AI). In one study, scientists presented computers with 131,000 mainshock–

aftershock pairs to train the computer. The study showed that a predictable pattern could be found in the data.

Researchers continue to improve the technologies used for detecting and measuring earthquakes. One day, they may be able to predict when and where earthquakes will occur.

Quiz

1 Read the list of sentences from the article.

1. *A seismogram is a graph from a seismometer that shows Earth's movements, and it provides a considerable amount of information.*
2. *Many of these stations also use sensitive GPS (global positioning system) receivers and other tools to measure changes in ground surface.*
3. *Some scientists are using social media to learn where earthquakes are happening and what damage they are causing.*
4. *One new approach to detect earthquakes uses glass fiber-optic cables, which are cables that carry light. Scientists can watch for changes in how light travels through the cables.*

Which two sentences taken together provide the BEST evidence to support the idea that seismic monitoring must be able to detect small variations in the Earth?

(A) 1 and 2

(B) 1 and 3

(C) 2 and 4

(D) 3 and 4

2 Read the sentence from the section "Dragon Seismometers."

Scientists are looking to new technology to find less expensive and easier ways to measure earthquakes.

Which of the following options BEST supports the idea that scientists are working to improve how they study earthquakes?

(A) A seismogram is a graph from a seismometer that shows Earth's movements, and it provides a considerable amount of information.

(B) Scientist have set up seismic monitoring stations around the world, and these stations are connected on computer networks that allow scientists to share data.

(C) Scientists cannot predict when earthquakes will occur, but they can issue an alert when seismometers detect the first waves from an earthquake.

(D) Today, computers collect huge amounts of earthquake data and can analyze it quickly.

3 How are ancient Chinese scientist Zhang Heng and modern scientists' ideas connected to each other?

(A) Zhang Heng's technology was not able to detect earthquakes, but his idea was developed by modern scientists.

(B) Zhang Heng's technology only indicated that an earthquake happened; modern technology provides more detail about earthquakes.

(C) Both Zhang Heng and modern scientists developed technology to detect small changes in the Earth's surface.

(D) Both Zhang Heng and modern scientists used methods of recording or graphing small movements in the Earth's surface.

4 Which of the following BEST explains how scientists interact with computers to study earthquakes?

(A) Scientists rely on computers to sift through large amounts of data to find patterns.

(B) Scientists develop apps that feed social media data into computers for analysis.

(C) Scientists use computers to predict when and where earthquakes will happen.

(D) Scientists are using computers to develop more sensitive seismometers.

ESL at Home 6-8 Weeks 3-4

Use notebook paper to complete these activities. Do one each day!

Monday	Tuesday	Wednesday	Thursday	Friday
Pick a page from a book. Change all of the nouns to things you see right in front of you in your house, then read it aloud.	Make a T-chart. Make a list of things you like about learning at home versus at school. **Home** | **School**	Find food in your house, like crackers or water bottles. Write or draw a word problem. **Omar has 346 crackers. Neveah ate one hundred three. How many are left?**	Go outside and look up at the clouds. Draw what you see.	Choose two animals. Draw and label their food web. Create a Venn diagram to compare their ecosystems.
Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
Create a shadow puppet story on the wall. Write the title, characters, problem, solution, and ending to your story.	Use crackers or candy to build a castle. How tall can you make it? How many pieces did you use? List your materials.	Take a walk in your neighborhood and search for items in nature that form the shape of letters. Draw what you see. 	Think of someone you would like to interview. Write them a letter with at least three questions.	Use the food in your house to create a menu with prices. Use them to write word problems. **Example:** **Milk = $21.00** **Bananas = $33.00** **Ice cream = $12.00**

ESL en Casa 6-8 Semanas 3-4

Usar una hoja de libreta para completer las actividades. Hacer uno por dia.

Lunes	Martes	Miercoles	Jueves	Viernes
Escoge una pagina de un libro. Cambio todos los sustantivos a cosas que ves entre de tu casa y despues lee la pagina de nuevo en voz alta.	Crear una grafica T. Hacer una lista de cosas que te gusta aprender major que en casa que en la escuela. **Casa** | **Escuela**	Encontrar comida en tu casa, como galletas o botellas de agua. Escribe una historia de problema matematica. **Omar tiene 346 galletas. Neveah comio ciento-tres. Cuantos quedan?**	Ve afuera y voltea a ver las nubes. Dibuja lo que ves.	Escoge dos animals y agrega que es lo que comen. Crear un diagrama que compare sus ecosistemas.

Lunes	Martes	Miercoles	Jueves	Viernes
Crear un espectaculo de marioneta de sombras con tus manos y la pared. Escribe el titulo, personajes, problema, solucion y el fin de la historia.	Usar galletas o dulces para hacer un castiilo? Que tan alto lo hiciste? Cuantas piezas usaste? Hacer una lista de los materiales que usaste.	sal a caminar en tu vecindad y busca cosas que parezcan letras. Dibjua lo que ves. 	Piensa en alguien a quien te gustaria entrevistar. Escribeles una carta con almenos tres preguntas.	usa la comida que tienes en casa para crear un menu con precios. Usalos para escribir problemas. **Ejemplo:** **Leche = $21.00** **Platanos = $33.00** **Nieve = $12.00**

British researcher digs up broken pottery from time of the Black Death

By Washington Post, adapted by Newsela staff on 06.01.16
Word Count **805**
Level **920L**

"Bring Out Your Dead": A street during the Great Plague in London, 1665, with a death cart and mourners. The Black Death had swept through Europe three centuries earlier. Edmund Evans/Wikimedia Commons

Carenza Lewis works in the pretty English countryside, but she does not pay much attention to the lush gardens and quaint houses. She is most interested in what is below her feet.

Beneath the ground, she knows, is evidence of a terrible time in human history.

"Huge Reservoir" Of Evidence

"Under every village, every community, there is a huge reservoir of archaeological evidence just sitting there," she said. "Evidence of these life-shattering events that people like us would have lived through - or not."

Lewis is an archaeologist and professor at Britain's University of Lincoln. As an archeologist, she studies human history by looking at artifacts and records. These days, she has been looking for bits of broken pottery. It comes from around the time of the Black Death, also known as the bubonic

plague. This disease swept through Europe about 650 years ago. Old pottery buried beneath the ground can show how communities were affected.

This week, Lewis had a paper published an article about her new study. Her research shows that the population in the towns she studied declined by about 45 percent around the time the plague hit England.

Devastation "On An Eye-Watering Scale"

The devastation, she wrote in her paper, is "evident on an eye-watering scale."

The study backs up other accounts of how the plague affected mid-14th century England. Until the last 50 years or so, historians believed that the effects of the disease were as awful as described. They accepted that the plague probably did kill a quarter to a half of Europe's people. They also believed it led to widespread social chaos.

Solid, scientific evidence was hard to come by, though. Mass graves, which were written about at the time, have not been uncovered. There are no population records to check.

Pottery Shows Stories Were True

Some have wondered if the plague was, perhaps, not as bad as has been reported. Scientists generally believe that societies are able to heal themselves when outside forces threaten them. It has seemed strange, to some, that the plague supposedly killed so many. After all, even the worst diseases of modern times killed no more than 3 percent of the world's population. Perhaps tales of the 14th century virus wiping out half of civilization were a bit exaggerated.

Or perhaps they were not. Lewis's study uncovered about 10,000 shards of pottery. They came from 50 towns across a wide stretch of eastern Britain. The study found evidence of major population shifts in almost every one of those communities. Human communities "shed pottery like dandruff," Lewis said. Just as fossils can show the appearance and extinction of species, pottery records show the rise and fall of towns.

After The Plague, Much Less Pottery

With the help of community members, Lewis and her co-workers dug about 2,000 pits in church yards and front gardens across the region. The workers were supervised by professional archaeologists.

The pottery from pre-plague years was easy to spot. It seemed to be everywhere. It was easily identifiable by its dull, gray-brown coloring and sandy feel. However, there was much less pottery from the next 200 years. The drop is evidence that there were many fewer people alive in the towns after the plague.

The number of shards also differed from town to town, which Lewis takes as evidence that the plague really did kill up to half of the population. The plague probably hit some towns harder than others. The areas that had fewer shards, Lewis believes, had more sick people. They had fewer people who were healthy enough to make pottery. The areas that had more shards had more healthy people. Lewis thinks the varying number of shards shows how different villages were affected.

Farming Areas Had It The Worst

"For the first time we can measure this impact and map it to know exactly what the decline was and where it happened," Lewis said.

The villages that were less affected by the disease depended less on farming. Bigger towns did relatively well after the plague, even if they had lost many of their people, because large numbers of people were not required to keep the farms going. In farming villages, however, there was no one left to plow the fields or harvest the crops, and these towns fell into deep decline. For many, it would take centuries to even begin to recover.

"A Clearer Picture"

Lewis hopes to keep doing research on this subject. She wants to use the same method to chart the devastation of the Black Death in towns throughout Britain. She hopes her research helps other scientists studying population shifts in the years following the disease.

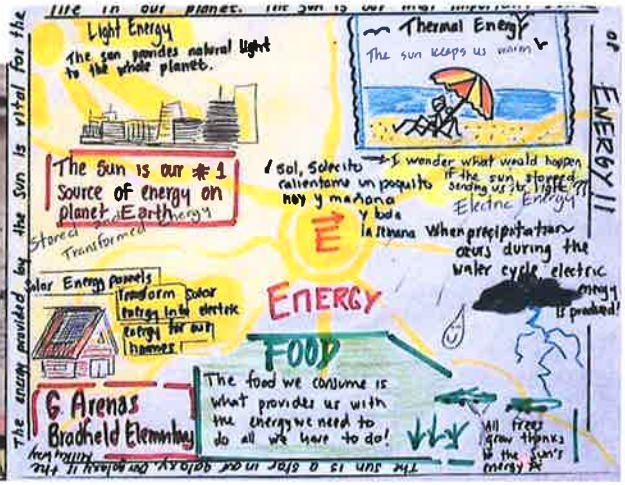
"Until we know what happened we can't understand why it happened," she said. "This is beginning to give us a clearer picture."

One Pager

You will need a blank piece of paper or a blank Google Doc (if you choose do complete this electronically). After you finish reading the articles complete one of the following:

- Sketch or insert a picture that represents what you have read
- Write out two quotations from the text
- Make connections between the text and current events using sketches and text
- Include a statement about one thing you connected with in the reading
- Identify three symbols through sketches or text.

I have included some samples to motivate you. Have fun and be creative!



Primary Sources: The Black Death, 1348

By Henry Knighton, adapted by Newsela staff on 03.30.17
Word Count **975**
Level **1040L**

A miniature from a 14th century Belgium manuscript showing people burying the dead from the Black Death in Tournai, Belgium.

The Black Death was one of the worst plagues that spread death to many countries. From 75 million to 200 million people in Eurasia and Europe died in the years between 1346 and 1353. The Black Death is thought to have come from rats and started in the plains of Central Asia. It moved west along the Silk Road, maybe with Mongol troops, reaching Eastern Europe by 1343. Cargo ships bringing riches from the east also brought rats that had a bacteria, Yersina Pestis, in their blood. Fleas on the rats bit them and drank the blood filled with Yersinia Pestis. Fleas then jumped onto humans and bit them. The Yersinia Pestis began killing humans by attacking the lungs and turning them to liquid. A cough spread the bacteria to other humans. The bacteria could also stop the blood from clotting, causing victims to bleed to death. Touching the blood or body of a sick person also spread the Black Death, which got its name because many victims were covered with black boils. There were at least two kinds of plague: pnuemonic (lung) plague or bubonic (clotting) plague.

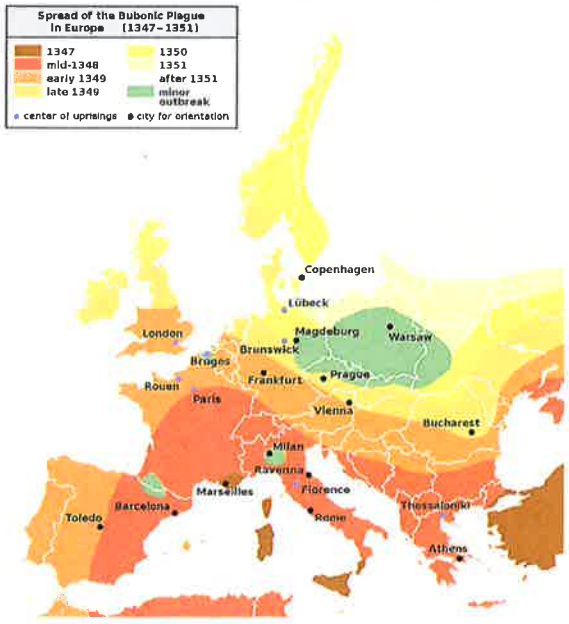
The Black Death arrived in Europe by sea in October 1347, when 12 trading ships docked in Sicily after a long journey through the Black Sea. Most of the sailors were dead and those that were still alive were very sick. The "death ships" were ordered out of the harbor, but it was too late,

and thousands in Sicily died. The expelled ships brought the disease to other ports in Italy and France. Over the next five years, the Black Death would kill almost half of the population of Europe, or 25 million people.

Henry Knighton, an Augustinian priest at St. Mary's of Leicester in England, wrote several books about the history of England. This piece is about the Black Death.

"48 Million People Died Suddenly"

In 1348 and 1349, many millions of people died throughout the world. It began first in India and moved west to Tarsus, Turkey, killing Muslims first and then Christians and Jews. The office of the pope believed that 48 million people died suddenly in those distant countries of Asia in the space of one year, from Easter to Easter. This did not include the death of Christians. When the king of Tarsus, a Muslim, saw this sudden loss of life among his people, he and his nobles set out to travel to the pope at Avignon, France. They wanted to become Christian and be baptized by the pope. The king believed that his people were being punished because they had not accepted Jesus Christ as the son of God. However, when he had completed 20 days of his journey, he heard that the fatal plague had killed many Christians, too. So they turned back to return to Tarsus. But Christians, who had been following the king and his people, attacked. They killed 1,312 people in Avignon the first day and 400 more on the second.



Then this most terrible plague came to the coast of England. It went through Southampton and came to Bristol. The cruel death took just two days to spread and almost the whole town was wiped out.

"The Scots Heard That The Plague Was Killing Their Enemy"

In the same year, a deadly sickness killed sheep throughout the country. In one place more than 5,000 sheep died in a single pasture. Their bodies were so decayed that no animal or bird would touch them. Because there was the fear of death, animals were sold at a low price. Sheep and cattle roamed through the fields eating the corn and no one stopped them.

The Scots heard that the plague was killing their enemy, the English. They felt God was punishing England. So they gathered in the forest of Selkirk, near the border, planning to invade England. However, the monstrous plague suddenly came upon them and within a short space of time around 5,000 died. They retreated to Scotland, but the English attacked and killed many of them.

"All Parties Feared The Spread Of The Plague"

At that time there were not enough priests in churches for masses, services, prayers for dying, or funerals. The plague moved through Dorset seaport, on to Devon, Somerset and up to Bristol. So the people of Gloucester stopped people escaping from Bristol. They feared the breath of those who had lived among the dying would spread the sickness. But in the end Gloucester, and then Oxford and London too, and finally the whole of England were so violently attacked that almost 90

percent of both men and women died. Cases in the courts of the king came to a stop, for all parties feared the spread of the plague. When the churchyards were not large enough to bury the dead, fields were used for the burials of the dead.

Hardly anyone dared to have anything to do with the sick. They fled from the things left by the dead, which had once been precious but were now poisonous to health. People who one day had been full of happiness on the next were found dead. Victims had little black boils scattered over their whole body. Of these people very few, indeed hardly any, recovered life and health. The plague, which began in Bristol on the feast of the Assumption of the Virgin [15 August] and in London around Michaelmas [29 September], raged for more than a year in England and completely emptied many villages.

ln the following year it laid waste to the Welsh and English in Wales, and then it moved to Ireland, where the English residents were cut down in great numbers. But the native Irish living in the mountains and uplands were scarcely touched until 1357, when it took them unawares and killed them, too.

Mid-Chapter Check

Vocabulary Check

1. Define *rational number*. Give some examples of rational numbers written in different forms. (Lessons 3 and 4)

2. Fill in the blank in the sentence below with the correct term. (Lesson 1)

   Repeating decimals can be represented using _____.

Skills Check and Problem Solving

Add or subtract. Write in simplest form. (Lessons 3–5)

3. $\frac{5}{8} + \frac{3}{8} =$

4. $-\frac{1}{9} + \frac{2}{9} =$

5. $-\frac{11}{15} - \frac{1}{15} =$

6. $2\frac{5}{9} + 1\frac{2}{3} =$

7. $8\frac{3}{4} - 2\frac{5}{12} =$

8. $5\frac{1}{6} - 1\frac{1}{3} =$

9. The table at the right shows the fraction of each state that is water. Order the states from least to greatest fraction of water. (Lesson 2)

What Part is Water?	
Alaska	$\frac{3}{41}$
Michigan	$\frac{40}{97}$
Wisconsin	$\frac{1}{6}$

10. The maximum height of an Asian elephant is 9.8 feet. What mixed number represents this height? (Lesson 1)

11. CCSS **Persevere with Problems** The table shows the weight of a newborn infant for its first year. During which three-month period was the infant's weight gain the greatest? (Lesson 5)

Month	Weight (lb)
0	$7\frac{1}{4}$
3	$12\frac{1}{2}$
6	$16\frac{5}{8}$
9	$19\frac{4}{5}$
12	$23\frac{3}{20}$

Key Concept

Multiply Fractions

Words To multiply fractions, multiply the numerators and multiply the denominators.

Examples Numbers $\frac{1}{2} \times \frac{2}{3} = \frac{1 \times 2}{2 \times 3}$ or $\frac{2}{6}$ Algebra $\frac{a}{b} \cdot \frac{c}{d} = \frac{a \cdot c}{b \cdot d}$ or $\frac{ac}{bd}$, where $b, d \neq 0$

When multiplying two fractions, write the product in simplest form. The numerator and denominator of either fraction may have common factors. If this is the case, you can simplify before multiplying.

Examples

Multiply. Write in simplest form.

1. $\frac{1}{2} \times \frac{1}{3}$

$\frac{1}{2} \times \frac{1}{3} = \frac{1 \times 1}{2 \times 3}$ ◄ Multiply the numerators. ◄ Multiply the denominators.

$= \frac{1}{6}$ Simplify.

2. $2 \times \left(-\frac{3}{4}\right)$

$2 \times \left(-\frac{3}{4}\right) = \frac{2}{1} \times \left(\frac{-3}{4}\right)$ Write 2 as $\frac{2}{1}$ and $\frac{-3}{4}$ as $\frac{3}{-4}$.

$= \frac{2 \times (-3)}{1 \times 4}$ ◄ Multiply the numerators. ◄ Multiply the denominators.

$= \frac{-6}{4}$ or $-1\frac{1}{2}$ Simplify.

3. $\frac{2}{7} \times \left(-\frac{3}{8}\right)$

$\frac{2}{7} \times \left(-\frac{3}{8}\right) = \frac{1}{\cancel{2}} \times \left(-\frac{3}{\cancel{8}}\right)$ Divide 2 and 8 by their GCF, 2.

$= \frac{1 \times (-3)}{7 \times 4}$ or $-\frac{3}{28}$ Multiply.

Got It? Do these problems to find out.

Multiply. Write in simplest form.

a. $\frac{3}{5} \times \frac{1}{2}$ b. $\frac{2}{3} \times (-4)$ c. $-\frac{1}{3} \times \left(-\frac{3}{7}\right)$

GCF
In Example 3, GCF stands for the greatest of the common factors of two or more numbers.
Example: The GCF of 8 and 2 is 2.

a. _____

b. _____

c. _____

Multiply Mixed Numbers

When multiplying by a mixed number, you can rename the mixed number as an improper fraction. You can also multiply mixed numbers using the Distributive Property and mental math.

Example

4. **Find $\frac{1}{2} \times 4\frac{2}{5}$. Write in simplest form.**

Estimate $\frac{1}{2} \times 4 = 2$

Method 1 **Rename the mixed number.**

$\frac{1}{2} \times 4\frac{2}{5} = \frac{1}{2} \times \frac{22}{5}$ Rename $4\frac{2}{5}$ as an improper fraction $\frac{22}{5}$. Divide 2 and 22 by their GCF, 2.

$= \frac{1 \times 11}{1 \times 5}$ Multiply.

$= \frac{11}{5}$ Simplify.

$= 2\frac{1}{5}$ Simplify.

Method 2 **Use mental math.**

The mixed number $4\frac{2}{5}$ is equal to $4 + \frac{2}{5}$.

So, $\frac{1}{2} \times 4\frac{2}{5} = \frac{1}{2}\left(4 + \frac{2}{5}\right)$. Use the Distributive Property to multiply, then add mentally.

$\frac{1}{2}\left(4 + \frac{2}{5}\right) = 2 + \frac{1}{5}$ Think: Half of 4 is 2 and half of 2 fifths is 1 fifth.

$= 2\frac{1}{5}$ Rewrite the sum as a mixed number.

Check for Reasonableness $2\frac{1}{5} \approx 2$ ✓

So, $\frac{1}{2} \times 4\frac{2}{5} = 2\frac{1}{5}$.

Using either method, the answer is $2\frac{1}{5}$.

Got It? Do these problems to find out.

Multiply. Write in simplest form.

d. $\frac{1}{4} \times 8\frac{4}{9}$ e. $5\frac{1}{3} \times 3$ f. $-1\frac{7}{8} \times \left(-2\frac{2}{5}\right)$

Simplifying
If you forget to simplify before multiplying, you can always simplify the final answer. However, it is usually easier to simplify before multiplying.

d. _____

e. _____

f. _____

NAME _____ DATE _____ PERIOD _____

Lesson 6 Homework Practice

Multiply Fractions

Multiply. Write in simplest form.

1. $\frac{3}{5} \times \frac{1}{2}$
2. $\frac{3}{4} \times \frac{2}{7}$
3. $10 \times \frac{1}{3}$
4. $-\frac{5}{8} \times 7$
5. $\frac{1}{7} \times \frac{7}{9}$
6. $-\frac{6}{11} \times \left(-\frac{1}{6}\right)$
7. $\frac{5}{6} \times \frac{1}{5}$
8. $\frac{1}{8} \times \frac{4}{5}$
9. $\frac{3}{8} \times \frac{8}{9}$
10. $\frac{4}{7} \times \frac{21}{32}$
11. $-\frac{5}{8} \times \frac{18}{25}$
12. $\frac{20}{21} \times \frac{3}{5}$
13. $3\frac{1}{5} \times \frac{3}{8}$
14. $\frac{2}{3} \times \left(-4\frac{1}{3}\right)$
15. $15 \times 2\frac{2}{5}$
16. $5\frac{1}{2} \times 4$
17. $8 \times 3\frac{3}{8}$
18. $10 \times 1\frac{1}{15}$
19. $5\frac{1}{4} \times \left(-4\frac{2}{3}\right)$
20. $2\frac{2}{7} \times 1\frac{1}{8}$

For Exercises 21 and 22, use measurement conversions.

21. Find $\frac{1}{10}$ of $\frac{1}{100}$ of a meter.

22. Find $\frac{1}{60}$ of $\frac{1}{60}$ of an hour.

For Exercises 23–25, evaluate each verbal expression.

23. one fourth of two thirds

24. three fifths of one sixth

25. two fifths of one half

26. **GASOLINE** Jamal filled his gas tank and then used $\frac{7}{16}$ of the tank for traveling to visit his grandfather. He then used $\frac{1}{3}$ of the remaining gas in the tank to run errands around town. What fraction of the tank is filled with gasoline?

27. **HIKING** A hiker averages $6\frac{3}{8}$ kilometers per hour. If he hikes for $5\frac{1}{3}$ hours, how many kilometers does he hike?

Key Concept

Divide Fractions

Watch

Words To divide by a fraction, multiply by its multiplicative inverse, or reciprocal.

Examples

Numbers	Algebra
$\frac{7}{8} \div \frac{3}{4} = \frac{7}{8} \cdot \frac{4}{3}$	$\frac{a}{b} \div \frac{c}{d} = \frac{a}{b} \cdot \frac{d}{c}$, where $b, c, d \neq 0$

Dividing 3 by $\frac{1}{4}$ is the same as multiplying 3 by the reciprocal of $\frac{1}{4}$, which is 4.

reciprocals

$3 \div \frac{1}{4} = 12 \qquad 3 \cdot 4 = 12$

same result

STOP and Reflect

What is the reciprocal of $\frac{2}{3}$? of 15? of $-\frac{1}{4}$? Write your answers below.

Is this pattern true for any division expression?

Consider $\frac{7}{8} \div \frac{3}{4}$, which can be rewritten as $\frac{\frac{7}{8}}{\frac{3}{4}}$.

$$\frac{\frac{7}{8}}{\frac{3}{4}} = \frac{\frac{7}{8} \times \frac{4}{3}}{\frac{3}{4} \times \frac{4}{3}}$$ Multiply the numerator and denominator by the reciprocal of $\frac{3}{4}$, which is $\frac{4}{3}$.

$$= \frac{\frac{7}{8} \times \frac{4}{3}}{1}$$ $\frac{3}{4} \times \frac{4}{3} = 1$

$$= \frac{7}{8} \times \frac{4}{3}$$

So, $\frac{7}{8} \div \frac{3}{4} = \frac{7}{8} \times \frac{4}{3}$. The pattern is true in this case.

Examples

Tutor

1. **Find $\frac{1}{3} \div 5$.**

$\frac{1}{3} \div 5 = \frac{1}{3} \div \frac{5}{1}$ A whole number can be written as a fraction over 1.

$= \frac{1}{3} \times \frac{1}{5}$ Multiply by the reciprocal of $\frac{5}{1}$, which is $\frac{1}{5}$.

$= \frac{1}{15}$ Multiply.

2. **Find $\frac{3}{4} \div \left(-\frac{1}{2}\right)$. Write in simplest form.**

Estimate $1 \div \left(-\frac{1}{2}\right) = -2$

$\frac{3}{4} \div \left(-\frac{1}{2}\right) = \frac{3}{4} \cdot \left(-\frac{2}{1}\right)$ Multiply by the reciprocal of $-\frac{1}{2}$, which is $-\frac{2}{1}$.

$= \frac{3}{4} \cdot \left(-\frac{\overset{1}{2}}{1}\right)$ Divide 4 and 2 by their GCF, 2.

$= -\frac{3}{2}$ or $-1\frac{1}{2}$ Multiply.

Check for Reasonableness $-1\frac{1}{2} \approx -2$ ✓

Got It? **Do these problems to find out.**

Divide. Write in simplest form.

a. $\frac{3}{4} \div \frac{1}{4}$ b. $-\frac{4}{5} \div \frac{8}{9}$ c. $-\frac{5}{6} \div \left(-\frac{2}{3}\right)$

Divide Mixed Numbers

To divide by a mixed number, first rename the mixed number as a fraction greater than one. Then multiply the first fraction by the reciprocal, or multiplicative inverse, of the second fraction.

Example

Tutor

3. **Find $\frac{2}{3} \div 3\frac{1}{3}$. Write in simplest form.**

$\frac{2}{3} \div 3\frac{1}{3} = \frac{2}{3} \div \frac{10}{3}$ Rename $3\frac{1}{3}$ as a fraction greater than one.

$= \frac{2}{3} \cdot \frac{3}{10}$ Multiply by the reciprocal of $\frac{10}{3}$, which is $\frac{3}{10}$.

$= \frac{\overset{1}{2}}{1} \cdot \frac{\overset{1}{3}}{\underset{5}{10}}$ Divide out common factors.

$= \frac{1}{5}$ Multiply.

Got It? **Do these problems to find out.**

Divide. Write in simplest form.

d. $5 \div 1\frac{1}{3}$ e. $-\frac{3}{4} \div 1\frac{1}{2}$ f. $2\frac{1}{3} \div 5$

a. _____

b. _____

c. _____

d. _____

e. _____

f. _____

NAME _____ DATE _____ PERIOD _____

Lesson 8 Homework Practice

Divide Fractions

Divide. Write in simplest form.

1. $\frac{3}{5} \div \frac{3}{4}$

2. $-\frac{4}{7} \div \frac{8}{9}$

3. $\frac{6}{7} \div \frac{5}{6}$

4. $\frac{1}{4} \div \frac{1}{2}$

5. $7 \div \frac{1}{3}$

6. $\frac{6}{11} \div 2$

7. $4\frac{1}{5} \div (-7)$

8. $8 \div 4\frac{2}{3}$

9. $\frac{3}{4} \div 1\frac{1}{6}$

10. $-\frac{7}{9} \div \left(-2\frac{5}{8}\right)$

11. $3\frac{2}{5} \div 5\frac{1}{10}$

12. $4\frac{8}{9} \div \frac{2}{3}$

13. $2\frac{3}{5} \div 1\frac{1}{4}$

14. $7\frac{1}{2} \div 2\frac{1}{2}$

15. $5\frac{1}{4} \div \frac{7}{8}$

16. $-8\frac{1}{3} \div \frac{5}{9}$

17. COOKING Mrs. Lau rolls out $2\frac{3}{4}$ feet of dough to make noodles. If the noodles are $\frac{3}{8}$ of an inch wide, how many noodles will she make?

18. PIZZA Use the table that shows the weights of three sizes of pizza.

Pizza Size	Weight (lbs)
Extra large	$6\frac{1}{2}$
Medium	$3\frac{1}{4}$
Small	$1\frac{5}{8}$

a. How many times as heavy is the extra large pizza than the small pizza?

b. How many times heavier is the medium pizza than the small pizza?

NAME_____ DATE_____ PERIOD_____

A P.I. R^2 Mini-Mystery

Who Killed Mr. Frac?

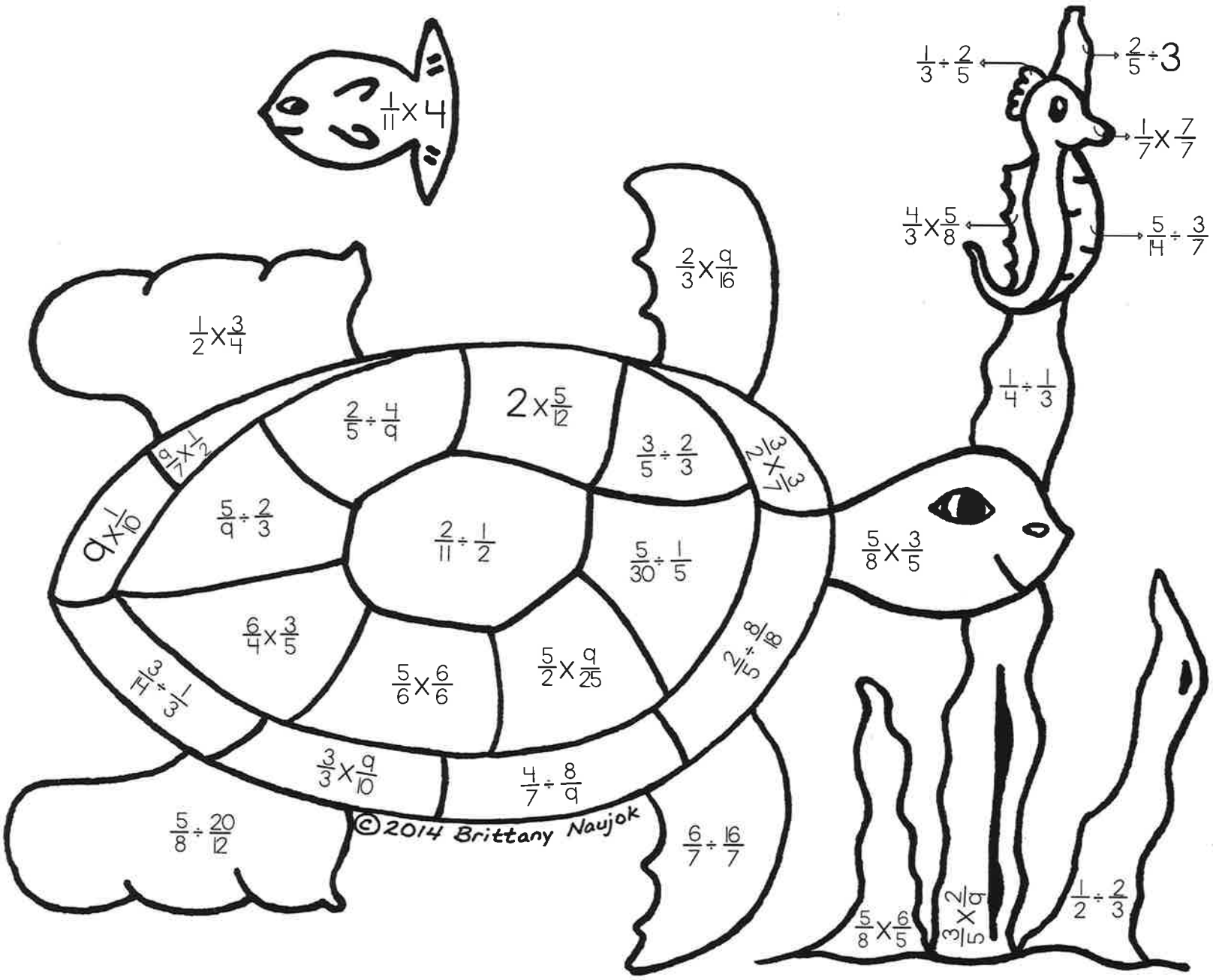
Directions: Find the value of each expression in lowest terms, then use your solutions to eliminate the suspects and solve the mystery.

1. $\frac{1}{2} \times \frac{3}{4}$
2. $\frac{1}{4} \times \frac{3}{5}$
3. $\frac{2}{3} \times \frac{9}{10}$
4. $\frac{4}{5} \times \frac{3}{8}$
5. $\frac{1}{6} \div \frac{5}{12}$
6. $\frac{13}{2} \div \frac{1}{2}$
7. $\frac{14}{15} \div \frac{7}{5}$
8. $\frac{35}{32} \div \frac{7}{4}$
9. $\frac{5}{7} \times \frac{14}{45}$
10. $\frac{6}{5} \times \frac{5}{12}$
11. $\frac{15}{6} \times \frac{2}{5}$
12. $\frac{7}{32} \times \frac{8}{21}$
13. $\frac{18}{56} \div \frac{12}{56}$
14. $\frac{28}{3} \div \frac{7}{9}$
15. $\frac{15}{24} \div \frac{5}{6}$
16. $\frac{7}{10} \div \frac{2}{5}$
17. $\frac{27}{35} \times \frac{49}{33}$
18. $\frac{68}{15} \times \frac{60}{17}$
19. $\frac{34}{75} \div \frac{51}{100}$
20. $\frac{96}{125} \div \frac{16}{5}$

WHO?	
☐ Mr. Jones	$\frac{2}{9}$
☐ Mr. Brown	$1\frac{8}{55}$
☐ Mr. Patrick	$\frac{3}{5}$
☐ Ms. Manns	$\frac{1}{3}$
☐ Mrs. Wright	1
☐ Ms. Davis	$\frac{3}{10}$
WHAT?	
☐ Crowbar	$\frac{3}{4}$
☐ Pistol	$\frac{2}{3}$
☐ Poison	$\frac{4}{5}$
☐ Knife	$1\frac{1}{2}$
☐ Rope	$\frac{3}{8}$
☐ Vase	$\frac{6}{25}$
WHERE?	
☐ Dining Room	16
☐ Game Room	$\frac{2}{5}$
☐ Office	12
☐ Kitchen	$\frac{8}{9}$
☐ Bedroom	$\frac{5}{8}$
☐ Garage	$1\frac{3}{4}$
☐ Cellar	13
☐ Library	$\frac{1}{2}$
☐ Hall	$\frac{3}{20}$
☐ Balcony	$\frac{5}{6}$
☐ Garden	$\frac{1}{12}$

IT WAS (WHO)	WITH A (WHAT)	IN THE (WHERE)

Solve the problem in each shape to determine its color then color it according to the directions.



1. Color the piece brown if the answer equals $\frac{2}{3}$
2. Color the piece yellow if the answer equals $\frac{3}{4}$
3. Color the piece black if the answer equals $\frac{2}{5}$
4. Color the piece orange if the answer equals $\frac{2}{15}$
5. Color the piece blue if the answer equals $\frac{5}{6}$
6. Color the piece red if the answer equals $\frac{4}{11}$
7. Color the piece purple if the answer equals $\frac{9}{10}$
8. Color the piece green if the answer equals $\frac{3}{8}$
9. Color the piece gray if the answer equals $\frac{9}{14}$
10. Color the piece pink if the answer equals $\frac{1}{7}$

THE NUMBER SYSTEM

Menu Choice board

Name: _____

due date: _____

Choose activities from the project menu below that equal $10 or more.
Shade in each box to show which activities you completed.

Standards	Appetizers $1	Entrées $5	Desserts $3	Project Proposal
7.NS.A.1 I can apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.	**Game** Design your own game where players have to add, subtract, and multiply rational numbers. After writing step-by-step directions, play your game with a friend and record all of your work on a record sheet.	**Science Journal** Look up the freezing points of 15 liquids. Record the temperature at which each liquid becomes a solid. If glycerol has a freezing point of 17.8 degrees Celsius, calculate how many more degrees the temperature must drop in order for the other liquids to freeze. Graph each problem on a number line. Create a journal to record all of your results.	**Interactive Notebook** Create your own interactive notebook page that explains that when subtracting rational numbers you are adding the additive inverse and that the distance between two rational numbers on the number line is the absolute value of their difference. Your page should include at least one foldable/ interactive element, 5 real-world practice problems, definitions of important vocabulary, and an objective.	Not interested in doing any of the projects here? Create your own project using the project proposal form and present it to your teacher. Once your project is approved, your teacher will determine how many points your project is worth.
7.NS.A.2 I can apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.	**Exit Card** Create 10 fractions and determine which fractions have terminating decimals and which have repeating decimals. What do the dominators of the terminating decimals have in common?	**Lesson Plan** Think about lessons that you learned and enjoyed the most. Design your own math lesson where you teach others how divide rational numbers and interpret the quotients by describing real-world contexts.	**Scavenger Hunt** Create your own multiplication and division of rational numbers scavenger hunt that ultimately reveals a hidden message. Your scavenger hunt must included a minimum of 15 problems and a key!	
7.NS.A.3 I can solve real-world and mathematical problems involving the four operations with rational numbers.	**Murder Mystery** Write your own murder mystery where the main character cracks the case by finding and solving clues that requires him to solve problems involving the four operations with rational numbers.	**Fundraiser** The six seventh grade classes held a fundraiser where they sold candy bars. The school's principal award a $1000 prize to be divided between the six classes. If each class sold a different quantity, what would be the most equitable way to divide the money based on their sales? If 8,200 candy bars were sold, simulate how you divide the money between the six classes.	**Jeopardy** Create a jeopardy game where teams have to solve real-world and mathematical problems involving the four operations with rational numbers. As the question value increases so should the difficulty of the problems. Don't forget to include a challenging final jeopardy question!	

THE NUMBER SYSTEM

Project Proposal

Name: _____

date: _____

What product will you create? _____ **Standard Addressed:** _____

Write a detailed description of your project: _____

_____

_____

How many points do you feel your project should be worth? *Circle one* Appetizer ($1) Entrée ($5) Dessert ($3)

Why do you want to create this project?

_____

_____

Teacher Use Only

Approval Decision : Not Approved Approved

Modifications to Project: _____

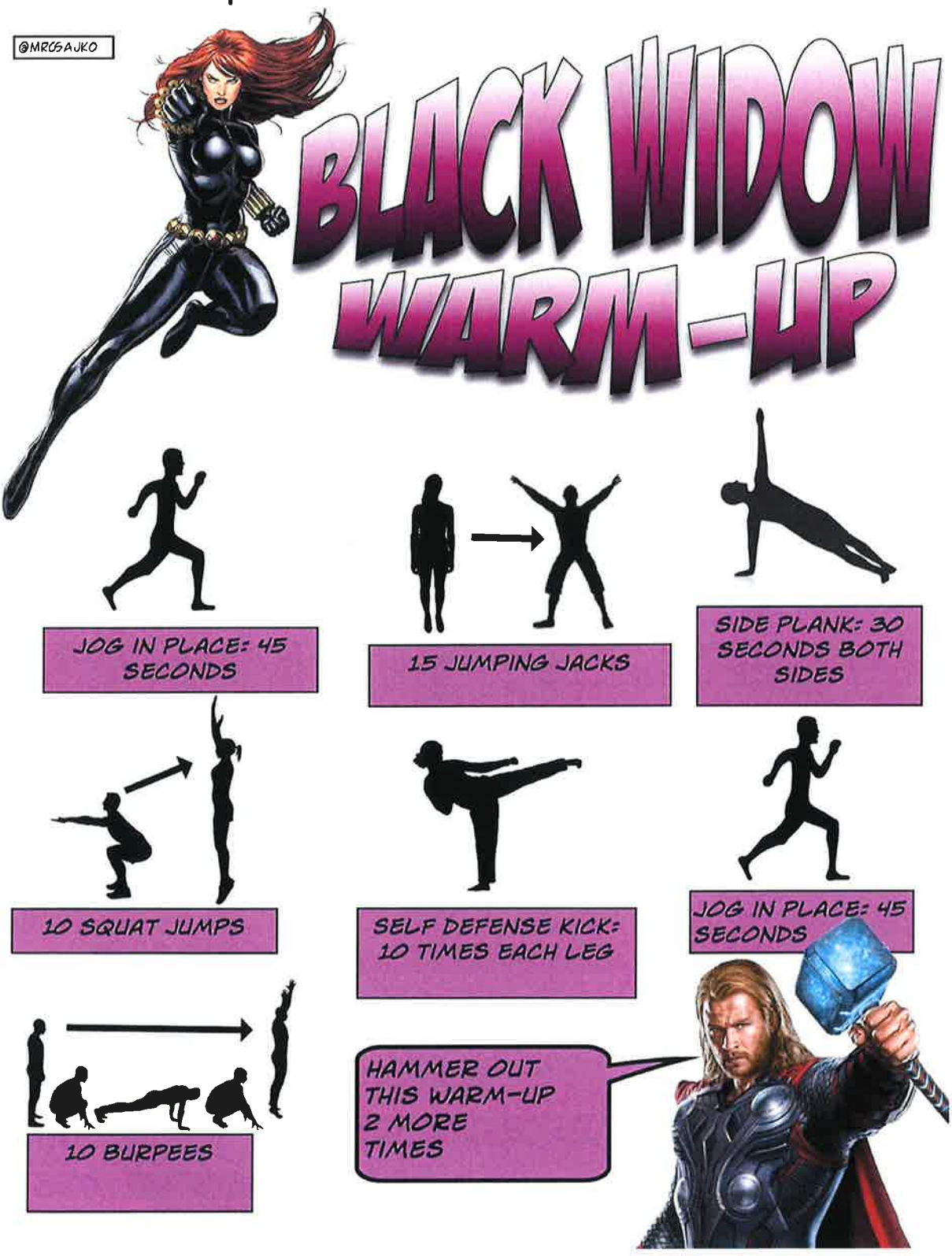
_____

Project Level : Appetizer ($1) Entrée ($5) Dessert ($3)

BLACK WIDOW

WARM-UP

Complete three rounds of each exercise!



FLASH

WARM-UP

Complete three rounds of each exercise!

FLASH WARM-UP

JOG IN PLACE:
15 SECONDS

SPRINT IN PLACE:
15 SECONDS

JOG IN PLACE:
15 SECONDS

PUSH UP POSITION:
30 SECONDS

SPRINT IN PLACE:
15 SECONDS

JOG IN PLACE:
30 SECONDS

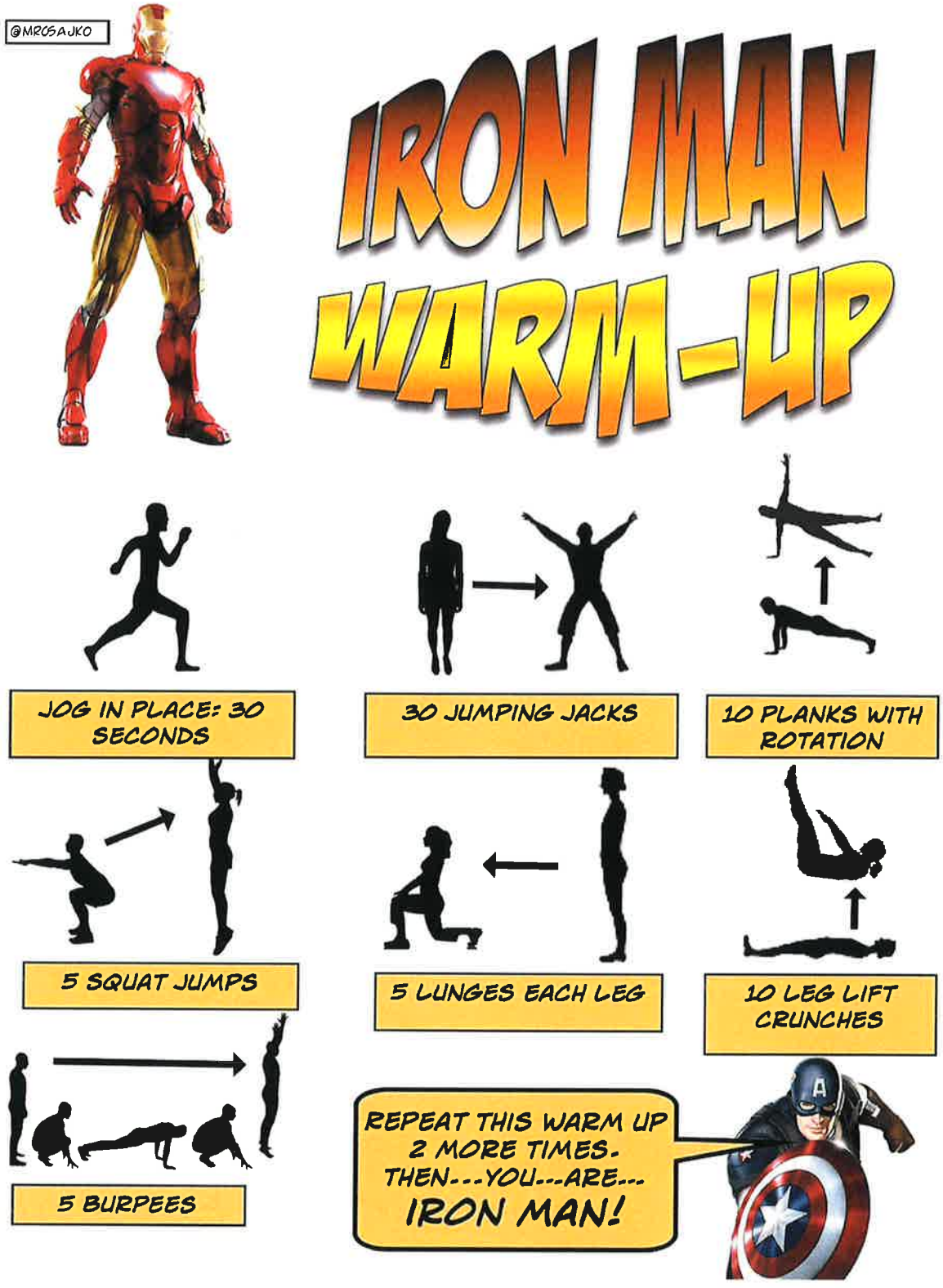
SPRINT IN PLACE:
15 SECONDS

WOAH!
THAT WAS FAST!
CAN YOU DO IT
AGAIN?

IRON MAN

WARM-UP

Complete three rounds of each exercise!



PHYSICAL EDUCATION
MAKE-UP ACTIVITY LOG

Name_____ Period_____

Date(s) of absence:_____

- Keep a daily log of physical activities you have done each day.
- Include the type of activity and the amount of time spent doing each activity.
- **A minimum of thirty (30) minutes is required each day to receive credit.**
- **A parent must sign the log each day to verify the completion of the activity.**
- Examples of activities include walking, biking, jogging, swimming, skiing, hiking, skating, etc.

Date	Activity	Amount of Time	Parent Signature

Educación Física
Registro de Actividades

Nombre_____ Periodo_____

Fechas de Ausencias:_____

- Mantén un registro diario de actividades físicas que has hecho cada dia.
- Incluye el tipo de actividad y la cantidad de tiempo que usaste haciendo cada actividad cada día.
- **Un minimo de treinta (30) minutos es requerido cada dia para recibir crédito.**
- **Un padre de familia debe firmar el registro cada dia para verificar que se a completado la actividad.**
- Ejemplos de actividades incluyen caminar, bicicletear, correr, nadar, esquiar, patinar, etc.

Fecha	Actividad	Cantidad de Tiempo	Firma