7th Grade FUESD Independent Study Plan, Week of May 4th

7In Grade rueso independent study Plan, 1		week of May 4th		
Week 7 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: The House on Mango Street Complete The Text Dependent Questions Science Read Classifying Rocks Document Work on the Text Dependent Questions ELD/Social Studies ELD Monday Read Feudalism in the Early Middle Ages Answer the Comprehension Questions or work on The One Pager (not both) Math 1 Dreambox or ST Lesson Multiplying Integers Notes Part 1 Multiplying Integers Practice Multiplying Integers Answer Sheet PE PE Week 7 Leadership Activities: Complete 1-2 activities from the Stay Positive Leadership Lesson	ELA Read 30 minutes independently 1 Lexia/or Reading Plus Lesson Complete Phrases and Clauses: Lesson 1 Science Read Classifying Rocks Document Work on the Text Dependent Questions ELD/Social Studies ELD Tuesday Read Feudalism in the Early Middle Ages Answer the Comprehension Questions or work on The One Pager (not both) Math 1 Dreambox or ST Lesson Multiplying Integers and Order of Operations Practice PE PE Week 7 Leadership Activities: Complete 1-2 activities from the Stay Positive Leadership Lesson	 ELA Read 30 minutes independently 1 Lexia/or Reading Plus Lesso Read The House on Mango Street: Hairs Complete The Text Dependent Questions Science Read Rockin' Cycle Work on the Text Dependent Questions ELD/Social Studies ELD Wednesday Read Charlemagne Answer the comprehension questions or work on The One Pager (not both) Math 1 Dreambox or ST Lesson Dividing Integers Notes Part Dividing Integers Notes Part Dividing Integers Practice Dividing Integers Answer Sheet PE PE Week 7 Leadership Activities: Complete 1-2 activities from the Stay Positive Leadership Lesson 	 ELA Read 30 minutes independently 1 Lexia/or Reading Plus Lesson Complete Adjective Phrases and Clauses: Lesson 2 Science Read The Icy Truth About Broken Rocks Work on the Text Dependent Questions ELD/Social Studies ELD Thursday Read Charlemagne Answer the comprehension questions or work on The One Pager (not both) Math 1 Dreambox or ST Lesson Dividing Integers Practice Dividing Integers Answer Sheet PE PE Week 7 Leadership Activities: Complete 1-2 activities from the Stay Positive Leadership Lesson 	 ELA Read 30 minutes independently 1 Lexia/or Reading Plus Lesson Read: The House on Mango Street: Boys and Girls Complete The Text Dependent Questions Science Read The Icy Truth About Broken Rocks Work on the Text Dependent Questions ELD/Social Studies ELD Friday Vocabulary Activity or finish The One Pager (not both) Math 1 Dreambox or ST Lesson Mixed Practice Mixed Practice Answer Sheet Weekly Challenge Yourself: Cruising Cruising Answer Sheet PE PE Week 7 Leadership Activities: Sharpen the Saw Complete 1-2 activities from the Stay Positive Leadership Lesson

7 Grado - Plan de Estudio independiente de FUESD - 4 de mayo

Semana 7 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 Contestar las preguntas de comprensión Ciencias Lee el documento para la semana 6 de Classifying Rocks Haz las preguntas de comprensión de Classifying Rocks ELD/SS ELD lunes enlace para la semana Lee el documento para la semana 7 de Feudalism in the Middle Ages Haz las preguntas de comprensión o la actividad de una página (no los dos trabajos) Matematicas 1 Dreambox o ST Lección	ELA/SS Leer 30 minutos independiente (registro de lectura) 1 Lexia/o Leccion Reading Plus Frases y cláusulas completas: Lección 1 Ciencia Lee el documento para la semana 6 de Classifying Rocks completa las preguntas de comprensión de Classifying Rocks ELD/SS ELD martes Lee el documento para la semana 7 de Feudalism in the Middle Ages Haz las preguntas de comprensión o la actividad de una página (no los dos trabajos) Matematicas 1 Dreambox or ST Lección Multiplying Integers and Order of Operations Practice PE Fisica semana Actividades de "Leadership": Completar 1-2 actividades de la Lección de liderazgo para mantenerse	ELA Leer 30 minutos independiente (registro de lectura) 1 Lexia/o Leccion Reading Plus Leer The House on Mango Street: Hairs Contestar las preguntas de comprensión Ciencia Lee el documento para la semana 6 de Rockin' Cycle Haz las preguntas de comprensión de Rockin' Cycle ELD/SS ELD miércoles Lee el documento para la semana 7 de Charlemagne Haz las preguntas de comprensión o la actividad de una página (no los dos trabajos) Matematicas 1 Dreambox o Leccion ST Dividing Integers Notes Part Dividing Integers Notes Part Dividing Integers Notes Part Dividing Integers Notes Part Dividing Integers Practice Dividing Integers Practice Tisica semana 7 Actividades de "Leadership":	ELA/Science Leer 30 minutos independiente (registro de lectura) 1 Lexia/o Leccion Reading Plus Frases y cláusulas completas: Lección 2 Ciencia Lee el documento para la semana 6 de The Icy Truth About Broken Rocks Completa las preguntas de comprensión ELD/SS ELD jueves Lee el documento para la semana 7 de Charlemagne Haz las preguntas de comprensión o la actividad de una página (no los dos trabajos) Matematicas 1 Dreambox o Leccion ST Dividing Integers Practice Dividing Integers Answer Sheet PE Fisica semana 7 Actividades de "Leadership": Completar 1-2 actividades de la Lección de liderazgo para mantenerse positivo	ELA/Science Leer 30 minutos independiente (registro de lectura) 1 Lexia/o Leccion Reading Plus Leer The House on Mango Street: Boys and Girls Contestar las preguntas de comprensión Ciencia Lee los documentos de The lcy Truth About Broken Rocks Completa las preguntas de comprensión ELD/SS ELD viernes Haz la actividad de vocabulario o termina la actividad de una página Matematicas 1 Dreambox o Leccion ST Mixed Practice Mixed Practice Answer Sheet Weekly Challenge Yourself: Cruising Cruising Answer Sheet PE Fisica semana 7 Actividades de "Leadership": Afila la sierra

PE Fisica semana 7 Actividades de "Leadership": Completar 1-2 actividades de la Lección de liderazgo para mantenerse positivo	positivo	Completar 1-2 actividades de la Lección de liderazgo para mantenerse positivo		
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The House on Mango Street

by Sandra Cisneros

The House on Mango Street

We didn't always live on Mango Street. Before that we lived on Loomis on the third floor, and before that we lived on Keeler. Before Keeler it was Paulina, and before that I can't remember. But what I remember most is moving a lot. Each time it seemed there'd be one more of us. By the time we got to Mango Street we were six—Mama, Papa, Carlos, Kiki, my sister Nenny and me.

The house on Mango Street is ours, and we don't have to pay rent to anybody, or share the yard with the people downstairs, or be careful not to make too much noise, and there isn't a landlord banging on the ceiling with a broom. But even so, it's not the house we'd thought we'd get.

We had to leave the flat on Loomis quick. The water pipes broke and the landlord wouldn't fix them because the house was too old. We had to leave fast. We were using the washroom next door and carrying water over in empty milk gallons. That's why Mama and Papa looked for a house, and that's why we moved into the house on Mango Street, far away, on the other side of town.

They always told us that one day we would move into a house, a real house that would be ours for always so we wouldn't have to move each year. And our house would have running water and pipes that worked. And inside it would have real stairs, not hallway stairs, but stairs inside like the houses on TV. And we'd have a basement and at least three washrooms so when we took a bath we wouldn't have to tell everybody. Our house would be white with trees around it, a great big yard and grass growing without a fence. This was the house Papa talked about when he held a lottery ticket and this was the house Mama dreamed up in the stories she told us before we went to bed.

But the house on Mango Street is not the way they told it at all. It's small and red with tight steps in front and windows so small you'd think they were holding their breath. Bricks are crumbling in places, and the front door is so swollen you have to push hard to get in. There is no front yard, only four little elms the city planted by the curb. Out back is a small garage for the car we don't own yet and a small yard that looks smaller between the two buildings on either side. There are stairs in our house, but they're ordinary hallway stairs, and the house has only one washroom. Everybody has to share a bedroom—Mama and Papa, Carlos and Kiki, me and Nenny.

Once when we were living on Loomis, a nun from my school passed by and saw me playing out front.

The laundromat downstairs had been boarded up because it had been robbed two days before and the owner had painted on the wood YES WE'RE OPEN so as not to lose business.

Where do you live? she asked.

There, I said pointing up to the third floor.

You live there? There. I had to look to where she pointed—the third floor, the paint peeling, wooden bars Papa had nailed on the windows so we wouldn't fall out. You live there? The way she said it made me feel like nothing. There. I lived there. I nodded.

I knew then I had to have a house. A real house. One I could point to. But this isn't it. The house on Mango Street isn't it. For the time being, Mama says. Temporary, says Papa. But I know how those things go.

The House on Mango Street by Sandra Cisneros

Hairs

Everybody in our family has different hair. My Papa's hair is like a broom, all up in the air.

And me, my hair is lazy. It never obeys barrettes or bands. Carlos' hair is thick and straight. He doesn't need to comb it. Nenny's hair is slippery—slides out of your hand. And Kiki, who is the youngest, has hair like fur.

But my mother's hair, my mother's hair, like little rosettes, like little candy circles all curly and pretty because she pinned it in pincurls all day, sweet to put your nose into when she is holding you, holding you and you feel safe, is the warm smell of bread before you bake it, is the smell when she makes room for you on her side of the bed still warm with her skin, and you sleep near her, the rain outside falling and Papa snoring. The snoring, the rain, and Mama's hair that smells like bread.

The House on Mango Street by Sandra Cisneros

Boys & Girls

The boys and the girls live in separate worlds. The boys in their universe and we in ours. My brothers for example. They've got plenty to say to me and Nenny inside the house. But outside they can't be seen talking to girls. Carlos and Kiki are each other's best friend . . . not ours.

Nenny is too young to be my friend. She's just my sister and that was not my fault. You don't pick your sisters, you just get them and sometimes they come like Nenny.

She can't play with those Vargas kids or she'll turn out just like them. And since she comes right after me, she is my responsibility.

Someday I will have a best friend all my own. One I can tell my secrets to. One who will understand my jokes without my having to explain them. Until then I am a red balloon, a balloon tied to an anchor.

The House on Mango Street Text Dependent Questions

Use the RACE Method to answer the following questions. Type your answers in the box. The boxes will expand as you type in them.

	Why is the house on Mango Street an improvement over the narrator's other homes? In
	what ways does it fall short of her "dream" house?
2.	How large is the narrator's family? What is their religion? What do you think the followin quotation says about the narrator's feelings about her home? "I knew then I had to have a house. A real house. One I could point to."
3.	What do you think is the significance of the "four little elms the city planted by the curb"?
Vedno	esday: <i>Hairs</i>
	What character traits are suggested for each of the following family members by the
	narrator's description of each one's hair?
Papa	narrator's description of each one's hair?
Carlo	5
Papa Carlos Nenny Kiki	5
Carlo: Nenny Kiki	5

Friday: Boys and Girls

1.	What qualities does the narrator want in a best friend?
2.	In what way can it be said the narrator has "mixed" feelings about her sister Nenny?
3.	This novel is writing in a poetic style. What do you think is the meaning of the following metaphor: "Until then I am a red balloon tied to an anchor."

Lesson 1 Phrases and Clauses

CCSS

L.7.1a: Explain the function of phrases and clauses in general....

Introduction Phrases and clauses are groups of words that give specific information in a sentence.

- A **phrase** may contain the subject or the predicate of a sentence but never both—and sometimes neither. For this reason, a phrase cannot stand alone.
 - **Sentence:** The great American artist Romare Bearden was born on

September 2, 1911.

Phrase 1: The great American artist Romare Bearden (contains subject)

Phrase 2: was born (contains predicate)

- **Phrase 3:** on September 2, 1911 (contains neither)
- A clause contains both a subject and a predicate. An independent clause can stand alone.

 A dependent (subordinate) clause depends on another clause and cannot stand alone.

Sentence: Although Bearden was born in North Carolina, his family

eventually moved to New York.

subject predicate

Clause 1: Although Bearden was born in North Carolina (dependent)

subject predicate

Clause 2: his family eventually moved to New York (independent)

Guided Practice Circle P for phrase or C for clause to identify the underlined group of words in each sentence. Then write D above any dependent clauses.

Hint

A dependent clause often begins with before, after, or until. Phrases can also begin with these words, but phrases cannot have both a subject and a predicate.

- Before he began his career as an artist, Bearden received a degree in education.
- After college, he worked as a social worker in New York City.
- He studied the works of many European artists, P C including Picasso and Matisse.
- Bearden also studied <u>African art and Chinese</u> P C landscape paintings.

P C

P C



Common Core Practice

For numbers 1-5, select the group of words that answers each question.

Which group of words in this sentence is a clause?

> When World War II broke out, Bearden served in the U.S. Army.

- broke out
- В in the U.S. Army
- C served in the U.S. Army
- When World War II broke out
- Which group of words in this sentence is a dependent clause?

After that, Bearden spent time in Paris, where he studied art.

- where he studied art
- В spent time in Paris
- C After that
- Bearden spent time
- Which group of words in this sentence is an independent clause?

Back in New York once more, Bearden briefly became a songwriter before pursuing art again.

- Bearden briefly became a songwriter
- В became a songwriter before pursuing art again
- C Back in New York once more
- D before pursuing art again

Answer Form

- 1 A B C O
- 2 A B C O
- 3 (A) (B) (C) (D)
- 4 A B C O
 - Number
- 5 A B C O Correct



Which group of words in this sentence is a phrase?

> In the 1960s, while Bearden focused on creating collages that depicted African-American life, he also became active in civil rights.

- Α he also became active in civil rights
- In the 1960s, while Bearden focused on creating collages
- C In the 1960s
- while Bearden focused
- 5 Which group of words in this sentence is a dependent clause that contains a phrase?

Bearden was supporting young minority artists when he helped establish the Cinque Gallery in 1969.

- Bearden was supporting young minority artists
- В when he helped establish the Cinque Gallery in 1969
- was supporting young minority artists when he helped
- establish the Cinque Gallery in 1969

Lesson 2 Adjective Phrases and Clauses

CCSS

L.7.1a: Explain the function of phrases and clauses in general and their function in specific sentences.

Remember that phrases and clauses are groups of words that give specific information in a sentence. A **clause** has both a subject and a predicate, while a **phrase** may have one or the other but not both.

Some phrases and clauses function like adjectives, modifying a noun or a pronoun in a sentence.

An adjective phrase tells "which one," "what kind," or "how many."

My uncle from Chile is my mother's little brother. (tells which uncle)

• An **adjective clause** also tells "which one," "what kind," or "how many." It usually begins with a relative pronoun, such as *who*, *whose*, *whom*, *which*, or *that*. The relative pronoun often serves as the subject of the clause.

He has a job that takes him all over the world. (tells what kind of job)

Guided Practice Identify the underlined group of words as an adjective phrase or an adjective clause by writing *phrase* or *clause* on the line. Then draw an arrow from the phrase or clause to the noun it modifies.

Hint

A clause can include several phrases within it. These phrases are often **prepositional phrases**, which are phrases that often describe the location, direction, or timing of something.

- My uncle told me a funny story about a mistake that he made at a hotel in Paris.
- Uncle Nestor, whose French is not very good, went to the front desk to ask for an extra blanket.
- The clerk at the desk looked puzzled.
- It turns out that Uncle Nestor had confused the word for *blanket* with the word meaning "flag."
- The clerk thought my uncle wanted to wrap himself in a flag, which would not be very warm!



Common Core Practice

For numbers 1-3, choose the group of words from each sentence that is an adjective phrase.

- Kenya, in eastern Africa, was where Uncle Nestor lived for two years.
 - A for two years
 - in eastern Africa
 - where Uncle Nestor lived
 - **D** lived for two years
- He also spent a lot of time in Prague, which is a city in the Czech Republic.
 - a lot of time
 - also spent
 - in the Czech Republic
 - **D** which is a city in the Czech Republic
- A man from the island of Crete convinced Uncle Nestor that he should spend some time there.
 - that he should spend some time there
 - from the island of Crete
 - convinced Uncle Nestor
 - A man from the island

Answer Form

- 1 A B C O
- 2 (A) (B) (C) (D)
- 3 (A) (B) (C) (D)
- 4 A B C O
- 5 (A) (B) (C) (D)





For numbers 4 and 5, choose the group of words from each sentence that is an adjective clause.

- Uncle Nestor worked for a while on a ship that sailed the Caribbean.
 - A that sailed the Caribbean
 - for a while
 - **Uncle Nestor worked**
 - on a ship
- The captain of the ship was a man named Ramón, whom Nestor knew from Chile.
 - A of the ship
 - knew from Chile
 - a man named Ramón
 - whom Nestor knew from Chile

Tuesday: Phrases and Clauses

1.	
2.	
3.	
4.	

1.	
2.	
3.	
4.	
5.	

Thursday: Adjective Phrases and Clauses

1,	
2.	
3.	
4.	
5.	

1,	
2.	
3.	
4.	
5.	



Short Response Strategy

Restate the Question

Turn the question into a statement

Answer the Question

Answer all parts of the question

Cite your Evidence

Choose a quote that proves your answer is correct.

- The text states, "__."
 - According to the author, "___."
- On page ____, it says, "__."

Explain your Answer

Explain, expand, or elaborate on your answer so you 'connect the dots' between your answer and the quote.

- This shows,
- Therefore the reader knows/infers,
 - For example,
 - To expand on this,
 - Based on this fact,



RACE

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Monday:	Classifying	Rocks
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Write a brief description for each. Type your answers in the box. The boxes will expand as you type.

Igneous Rocks	
Sedimentary Rocks	
Metamorphic Rocks	
Tuesday: Classifying Rocks Give examples of each type of rock	
Igneous Rocks	
Sedimentary Rocks	
Metamorphic Rocks	
Wednesday: Rockin' Cycle In your own words, explain the rock	cycle.

Thursday: The Icy Truth About Rocks

Find 5 new words in the article. Write down the definition, add a drawing or picture, synonyms or antonyms, and write the word in a sentence.

Word	Drawing/ Picture	Synonyms/ Antonyms	Use it in a Sentence

	h About Rocks		
iday: The Icy Trut rite a summary abo			

Rock types found on Earth are different from one another because they contain a wide variety of materials and because they have been exposed to varied conditions.

Rocks are formed from minerals and elements that naturally occur in Earth's crust. Examples of some minerals that are

found in rocks are feldspar, mica, quartz, and calcite. Deep under Earth's surface, where many rocks are formed, heat and pressure also play a role in rock formation. When heat and pressure are added to the materials that make up rocks, the materials go through physical and chemical changes and create rocks with new sets of properties. Depending on what minerals and other materials are present and how much heat and pressure they are exposed to, a wide variety of rocks can form. Once a rock is made, it can then experience more changes as the effects of things such as temperature, weather, and water act on it.

Extratives:
quick cooling
on surface,
liny crystals
or glassy

lgneous
intrusives:
slow cooling
in interior,
large crystals

Igneous rocks that form on Earth's surface are called extrusive. Igneous rocks that form under Earth's surface are called intrusive.

Geologists are scientists who study the history, processes, and materials of our planet that have led to its current structure. Some geologists study how different rocks form. Geologists classify rocks into three main categories: igneous, sedimentary, and metamorphic.

Igneous Rocks

The word "igneous" comes from the Greek word for fire. Igneous rocks are formed from extremely hot molten rock, or magma. Magma, which flows like a thick liquid, is found under Earth's crust. Once magma cools down, it becomes solid rock. Depending on the minerals present in the magma and how quickly the magma cools down, many types of igneous rocks can form.

Obsidian (dark glassy rock) and pumice (gray porous rock) are both examples of extrusive igneous rocks.

Extrusive igneous rocks form when magma cools relatively quickly. This often happens when magma flows out onto Earth's



surface, becoming lava. Because it is much cooler on the surface than below the crust, the lava cools quickly and solidifies into rocks.

Because of their rapid cooling, extrusive rocks do not contain crystals. Crystals form only when magma cools slowly. Extrusive igneous rocks sometimes have a smooth, glassy texture. An example of this is obsidian. Lava cools quickly; therefore, bubbles of air or other gases can get trapped inside. This makes tiny holes throughout the rock. Pumice is a type of extrusive igneous rock that contains many such holes. Pumice is very light—it can even float on water.

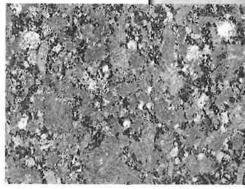
Intrusive igneous rocks form when magma cools relatively slowly. This can happen while the magma is still underneath Earth's surface, often collected in pockets. Magma trapped in these pockets can take thousands or millions of years to cool down.

Because intrusive igneous rocks cool down so slowly, there is time for crystals and other minerals to form. These types of rocks tend to have a grainy texture. Granite is an example of an intrusive igneous rock. If you look closely at a piece of granite, you will be able to see different minerals throughout the rock, such as quartz and feldspar.

Sedimentary Rocks

Sedimentary rocks are formed from pieces of other rocks. These pieces, or sediments, have broken off from existing rocks due to the weathering effects of heat, water, ice, or pressure. Sediments are then carried away by wind, ice, gravity, or water and deposited elsewhere. Over long periods of time, layous of deposited sediment

long periods of time, layers of deposited sediments build up. The sediments deeper in the ground have more and more weight added above them. The pressure of this weight, along with dissolved minerals that act like glue, causes sediments deeper in



Granite is an example of an intrusive igneous rock. Crystals can form in granite because it cools down so slowly as it forms.



The layers, or strata, seen in the Grand Canyon are examples of sedimentary rocks.



Earth's crust to become cemented together. The layers of sediment are often still visible as bands or stripes in the solid rock that forms from them. Sometimes large areas of sedimentary rock are visible, such as in the Grand Canyon. The layers, or strata, in these rocks represent different types of sediments deposited over millions of years.

Sediments can be many different sizes. Some sedimentary rocks, such as shale, are formed from very tiny particles and have a smooth texture.

Sandstone is made from slightly larger, sand-sized by organic sediments and has a rougher texture. Other sedimentary rocks contain much larger, pebble-sized sediments.



Bituminous coal is a type of sedimentary rock formed by organic material.

Sedimentary rocks can also be formed from large deposits of

organic material. Organic material is anything that came from a living organism. Just like the small particles of rock that make sedimentary rocks such as sandstone, material from once-living things can build up and cement together into rock. Some types of coal are examples of sedimentary rock formed from organic deposits. Sedimentary rocks can also contain fossils of living things that were covered by layers of sediment soon after death.

Stalactites and stalagmites are other types of sedimentary rocks. These form when water traveling through rock layers in the ground dissolves some of the minerals in them. These minerals travel with the water through the rock layers. If the water evaporates, it can leave behind deposits of the minerals.

Metamorphic Rocks

Metamorphic rocks form when heat and pressure rocks that fin Earth's crust change existing rocks. These rocks are exposed to high heat and pressure underground but do not melt into magma. The heat can come from nearby magma, and the pressure can come from the weight of Earth's crust. Rocks between colliding tectonic plates

are also exposed to tremendous heat and pressure. Varying



Stalactites (forming on the cave ceiling) and stalagmites (forming on the cave floor) are examples of sedimentary rocks that form from mineral deposits.



conditions allow for many different types of metamorphic rocks to form.

Because they are very hot and under intense pressure, metamorphic rocks can bend and fold without breaking as they form. Some metamorphic rocks, such as gneiss (pronounced "nice") have minerals in them that separate into bands when exposed to high heat and pressure. Even though its minerals initially line up in straight lines, gneiss has a wavy or folded look to it. The folded look of gneiss shows how uneven pressure bent and twisted these lines over time.

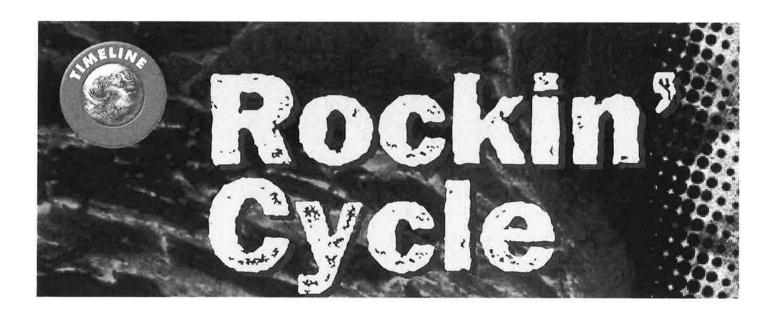
Other types of metamorphic rocks, such as marble, do not appear folded. Marble does not look folded because the minerals that make up this rock do not line up like they do in gneiss. Marble is a metamorphic rock even though it looks very different from gneiss.

Igneous, sedimentary, and metamorphic rocks all reflect their composition and formation histories. Studying different types of rocks provides clues to geologists about what was happening on Earth when the rocks were formed.



Gneiss is a type of metamorphic rock with a folded look to it. This folded pattern shows how it was pushed and pulled as the rock formed.

There is no folded pattern in marble. Even though marble looks very different from gneiss, pictured above, they are both types of metamorphic rocks.



ocks can be made over again and again, going back and forth from one type to another in a never-ending process called the rock cycle.

Step 1

Minerals are heated to extremely high temperatures and then cooled, forming igneous rocks. When magma cools inside the earth, it forms igneous rocks such as granite. These are called intrusive igneous rocks. And they're coarse-grained because they cool slowly. When lava cools at the earth's surface, it forms igneous rocks such as basalt—a rock with fine grains, because it cooled quickly.

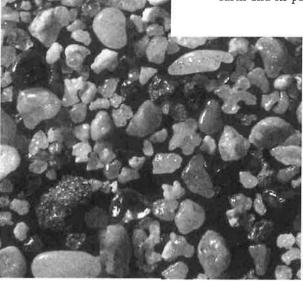
Step 2

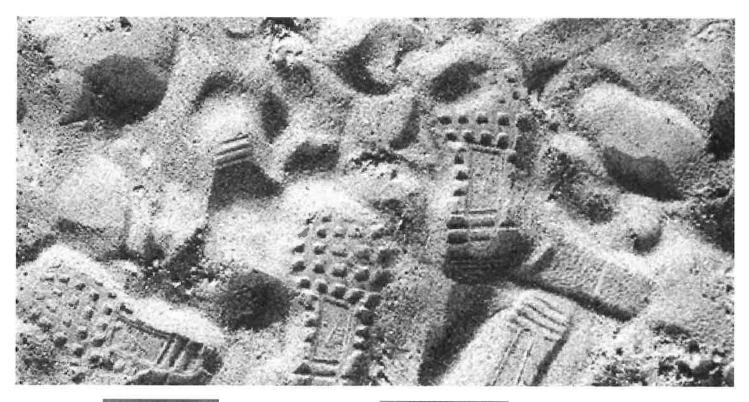
When rocks are exposed at the earth's surface, their mineral structure changes because they erode and break down into smaller grains. These grains are then transported through wind or water and deposited as sediments, such as sand and pebbles.

Step 3

Sediments are compacted and cemented over time, forming sedimentary rocks. You can usually find sedimentary rocks in and near riverbeds and streambeds. Sedimentary rocks sometimes contain fossils—traces of life—that can give scientists some information about the earth and its past.





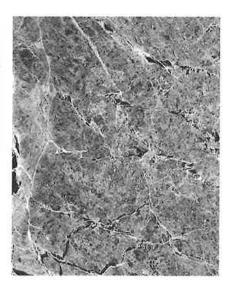


Step 4

Igneous or sedimentary rocks that are heated or put under pressure can turn into metamorphic rocks. Some or all of the minerals in the original rocks are replaced, atom by atom, to form new minerals. Metamorphic rocks are often squished, twisted, smeared out, and folded from pressure, water, or heat.

Step 5

At higher temperatures, over time, metamorphic rocks may melt again. That changes the crystals of the rocks and creates igneous rocks. What happens then? Go back to Step 1 and repeat—forever.



Activity

HAWAIIAN HEAT The Islands of Hawaii were formed when volcanic lava cooled to form Igneous rocks. Use an encyclopedia or the Internet to make a timeline of how the Islands of Hawaii formed. How has Hawaii's rock composition changed? What type of rocks are found in Hawaii today? Why do you think those rocks are found there? Keeping in mind what you've learned about the rock cycle, what could possibly happen to the Igneous Islands of Hawaii?

DISCOVERY EDUCATION SCIENCE CONNECTION



The Icy Truth about Broken Rocks

Have you ever wondered where soil comes from? When you look at soil with a magnifying glass or a microscope, you see many small bits of material. Tiny fragments of rocks and minerals are also visible. Decomposed plant and animal matter is also present, along with some water and air. All of these components make soil valuable.

Particles of rocks and minerals make up the bulk of most soils. Where do these particles come from? If you guessed that they are broken off of larger pieces of rocks and minerals, you are correct. Various forces in nature act upon rocks to break them down, little by little. In fact, over time, most kinds of rock will become increasingly smaller as they are affected by mechanical and chemical changes.



Soil contains bits of rock, minerals and decayed matter. You can feel the grit of the rocky material by rolling soil in your fingers.

Physical forces act on rocks to break them into smaller particles through process known as **mechanical weathering**. Major types of mechanical weathering include abrasion, thermal change, pressure release, and frost wedging.

Abrasion occurs when rock material rubs together. This process is common in rivers, where rocks become rounded after tumbling in running water. Another type of mechanical weathering, thermal change, causes rock material to expand and contract as the temperature rises and falls. Because rocks are brittle, they are easily broken apart through this process. Finally, many rocks form underground in high-pressure environments. As the rocks move toward the surface, they experience less pressure and are more easily broken apart. This type of mechanical weathering is called **pressure release**.

One other major type of mechanical weathering is caused by the freezing and thawing of water. **Frost wedging**, also known as ice wedging, occurs when chunks of rock are mechanically removed from other rocks. When the temperatures fall to 5 degrees Celsius, liquid water expands and takes up a



Abrasion forms the rounded edges of pebble stones. The stones are tumbled against each other in moving water.



The Icy Truth about Broken Rocks

larger volume of space. This expansion continues as the water freezes into frost and ice. At times, the pressure of the expanding ice is so great that it can split a boulder! Frost wedging is most common in mountainous areas and arctic regions. In these places, movement between temperatures above and below the freezing point is common.

A similar wedging process occurs when plant roots grow in small cracks in rocks. The rocks may eventually split apart as the roots grow large enough to create a wedge. You may have seen examples of this process walking down the sidewalk—many cracks in the sidewalk have tree roots growing in them.



Frost wedging is similar to the way an axe splits wood. The pieces of rock (or wood) are forced apart.

The next time you take a bite of a juicy apple or a tasty carrot, think about the soil that was required for the plants to grow. Mechanical weathering may be responsible for some of the rock material in the soil where the plant you're enjoying grew.

Use notebook paper to complete these activities Do one each

Monday Tuesday: Wonday								
Monday	Tuesday	Wednesday	Thursday	Friday				
Choose any book, TV show or movie. Write a 1 paragraph summary, and then write and illustrate an alternate ending.	Use things you can find in your house to invent something new. Illustrate and label it. Write about how you would use this invention to solve a problem.	Create a cipher code, then write a message to a family member. See if they can unlock the code. EX:	For each letter of the alphabet, find four objects in your house that begin with the letter. Example: A: airplane toy, animal crackers B: bread C: D:	Choose something in your house to use as a measuring tool, like a water bottle or a spoon. Measure 10 things with that tool and make a list. Example: My bed = 12 water bottles by 16 water bottles.				
Monday	Tuesday	Wednesday	Thursday	Friday				
Roll up three pieces of paper to make tubes. Stand them up. See how many things you can stack on top of the tubes. Make a list of all the things you were able to stack.		Create a scavenger hunt for your family. Hide things around your house, then write clues to help them search.	Observe the cars that pass by your home in 1 hour. Tally the color of each car. Create ratios to explain the probability of a certain color car passing by.	Think of two characters from two different books or shows. Write a story about what might happen if they met each other.				

ESL en Casa 6-8 Semanas 1-2
Usar una hoja de libreta para completer las actividades. Hacer uno por dia.

	Thoja ac libreta p		Tacimidados. Hac			
Lunes	Martes	Miercoles	Jueves	Viernes		
Escoge cualquier libro, pelicula o programa de television. Escribo un parafo resumido, y despues escribe escribe y dibuja un final alterno.	Usar cosas que puedas encontrar en tu casa para inventar algo nuevo. Dibujalo y etiquetalo. Escribe como este invento va hacer de ayuda.	Crear un codigo de cifrado, despues escribe un mensaje a un familiar. Ve si ellos pueden descifarlo. EX: A B C D E F G H Z Y X W V U T S	Encontrar cosas en casa que empiecen con las letras del abecedario. Dar 4 ejemplos de cada uno Ejemplo: A: anillo, agua B: basura, bote C: D:	Escoge algo en tu casa para usar de herramienta para medir, como una botella de agua o una cucharra. Medir 10 cosas con tu herramiento y hacer una lista. Ejemplo: Mi cama mide 12 botellas de agua por 16 botellas de agua.		
Lunes	Martes	Miercoles	Jueves	Viernes		
Encontrar 30 cosas en tu casa. Acomodarlos por listas. Ejemplo: cosas que son rojas, cosas que son de plastico, cosas que tienen iman.	contrar 30 cosas en tu casa. comodarlos por listas. mplo: cosas que rojas, cosas que on de plastico, osas que tienen Enrollar 3 pedazos de papel para hacer tubos. Paralas y mira cuantas cosas puedes poner encima. Hacer una lista de todo lo que		Observar los carros que pasan por tu hogar en una hora. Cuenta los coloroes de cada carro. Crear proporciones de cada color para determinar la probabilidad.	Piensa en dos diferentes personajes de distinos libros o peliculas. Escribe una historia de como pudieran llegar a conocerse.		

FEUDALISM IN THE EARLY MIDDLE AGES



Rome didn't collapse all at once. It happened over an extended period of many years, after repeated attacks from the Huns and Goths. The Huns were nomadic warrior tribes. The Goths split into two groups, one group that became federates of the Roman Empire and one group that joined the Huns. Rome had for centuries battled Germanic tribes that attacked "the eternal city," as Rome was called.

In 476, the Germanic ruler Odoacer staged a revolt and deposed (took the crown from) Romulus Augustulus, the last Emperor of Rome. Since there was no large system of government in Europe when Rome fell, Europe entered a time of decline.

One invasion after another in Europe had catastrophic results. Because of the invasions, merchants' businesses closed and the cities that had previously been economic centers were destroyed. Trade and intellectual life disappeared. The Germanic invaders had a rich history in songs and legends, but they could not read and write. The people moved out of the cities to grow their own food in rural areas and schools closed. There was no longer education. Except for priests and church officials, no one could read or write. Due to the lack of education, Latin became mixed with other languages, and soon villages could not understand each other. The knowledge of Greek language was almost lost.

There was no central government that held things together. Fighting from village to village ravished the security of the people. Medieval Europe was in chaos, but the people needed some form of a political system to defend themselves.

Feudalism was based on agreements between vassals and lords, and it took care of all aspects of society with the exception of religion. Europe became a land of many small kingdoms called fiefs, benefitting only the wealthy people. It was a very hard life for those who were not wealthy. Each king set his own laws and manufactured his own money. Feudalism was three systems wrapped up in one: a social hierarchy, a political system, and an economic system.

WHILE YOU'RE READING... MARK WITH SYMBOLS I when you find something interesting. when you are unsure or confused by something. when you find something important. HIGHLIGHT WITH COLORS yellow power words or key terms green key phrases and definitions

CHARLEMAGNE



Charlemagne, also known as Charles the Great, was a powerful medieval emperor who sought to unify all the Germanic people. He became the King of the Franks, a Germanic tribe in 771. His goal was not only to unite Europe, he also wanted to convert his subjects to Christianity. These goals meant the great military strategist spent much of his time in war. In 800, Pope Leo III crowned Charlemagne Emperor of the Holy Roman Empire. This helped him immensely when he began to revive culture and intellectualism in Europe. He was very educated, knowing both the Latin and Greek languages.

Charlemagne was a zealous defender of Christianity. He was generous with his gifts of land and money to the Holy Roman Church. As a means of recognizing Charlemagne and to keep his allegiance to the church, he was crowned the Holy Roman Emperor on December 25th, 800.

As Charlemagne's power throughout Europe expanded, he was able to accomplish much of what was important to him. His military campaigns included the defeat of the Saxons and its total conversion to Christianity. He also conquered the kingdom of the Lombards in Italy and

invaded the Moor-controlled area of northern Spain. Over a 20 year span, just before he became Emperor, he added Bohemia and the middle Danube basin.

Charlemagne was Emperor over vast territories, which became known as the Carolingian empire. He was a talented diplomat and a just administrator over his immense land holdings. He promoted education and a renewed emphasis on scholarship and culture. In his palace in Aachen, where he spent a lot of time with his 18 children, he included a school with the best teachers recruited throughout the land. He invited many eminent scholars to his court, and he established a great library of Christian and classical works. He also created the Carolingian minuscule, a standardized method of writing. It eventually became the foundation for modern European printed alphabets.

WHILE YOU'RE READING... MARK WITH SYMBOLS ! when you find something interesting. ? when you are unsure or confused by something. * when you find something important. HIGHLIGHT WITH COLORS yellow power words or key terms green key phrases and definitions

Comprehension Questions Week 7

Type your answers in the boxes below. They will expand as you type in them.

Mond	ay: Feudalism in the Early Middle Ages
1.	How would you describe Feudalism in the Early Middle Ages of Europe?
2.	How did the Germanic Invasion affect Europe?
3.	Why do you think a central government was needed during this time? How would this have helped the people of Medieval Europe?
	lay: Feudalism in the Early Middle Ages box below, write a summary of what you read. The box will expand as you type in it.
Wedn	esday: Charlemagne
In the	box below, write down at least 2 questions that you have about the reading.

Thursday: Charlemagne

1. What did Charlemagne accomplish during his military campaign?

What were some of Charlemagne's goals for Europe?	
3. What were Charlemagne's views on education?	

Friday: Both Articles

Choose 4 words that you came across in the readings that you did not know what they meant. Find the definition of the word, insert or draw a picture, write synonyms or antonyms, and write the word in a sentence.

Word	Drawing/ Picture	Synonyms or Antonyms	Write the word in a sentence

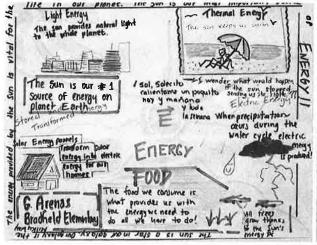
One Pager

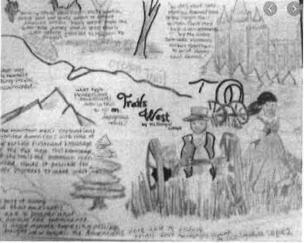
Instead of answering the comprehension questions, you have the option to create a one pager. You will need a blank piece of paper or a blank Google Doc (if you choose do complete this electronically). After you finish reading the articles complete one of the following:

- 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!







Key Concept

Multiply Integers with Different Signs

Words

The product of two integers with different signs is negative.

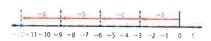
Examples 6(-4) = -24

-5(7) = -35

Remember that multiplication is the same as repeated addition.

$$4(-3) = (-3) + (-3) + (-3) + (-3)$$

$$= -12$$
= 13 is repeated as an added four times



The Commutative Property of Multiplication states that you can multiply in any order. So, 4(-3) = -3(4).

Examples



2. Find -6(8).

-6(8) = -48

Got It? Do these problems to find out.

a. 9(-2)

b. -7(4)

Key Concept

Multiply Integers with the Same Signs

Words

The product of two integers with the same sign is positive.

Examples 2(6) = 12

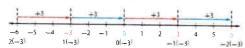
-10(-6) = 60

234 Chapter 3 Integers

The product of two positive integers is positive. You can use a pattern to find the sign of the product of two negative integers. Start with (2)(-3) = -6 and (1)(-3) = -3.



Each product is 3 more than the previous product. This pattern can also be shown on a number line.



If you extend the pattern, the next two products are (-3)(-3) = 9and (-4)(-3) = 12

Examples



-11(-9) = 99

The integers have the same sign. The product is positive

4. Find (-4)2.

$$(-4)^2 = (-4)(-4)$$

= 16

5. Find -3(-4)(-2).

$$-3(-4)(-2) = [-3(-4)](-2)$$

$$= 12(-2)$$

$$= -24$$
Associative Property
$$-(4-4) = 12$$

$$= -24$$

$$12(-2) = -24$$

Got It? Do these problems to find out.

c. -12(-4)

 \mathbf{d} , $(-5)^2$

e. -7(-5)(-3)



Write three integers with a positive product. At least one of them must be a negative integer. Show your work below.







Example



6. A submersible is diving from the surface of the water at a rate of 90 feet per minute. What is the depth of the submersible after 7 minutes?

The submersible descends 90 feet per minute. After 7 minutes, the vessel will be at 7(–90) or –630 feet. The submersible will descend to 630 feet below the surface.

Got It? Do this problem to find out.

f. Financial Literacy Mr. Simon's bank automatically deducts a \$4 monthly maintenance fee from his savings account. Write a multiplication expression to represent the maintenance fees for one year. Then find the product and explain its meaning.



£.

Lesson 4 Homework Practice

Multiply Integers

Multiply.

1. 4(-7)

2. -14(5)

3. 9(-12)

4. -6(-8)

5. 27(-3)

6. -11(-13)

7. -55(0)

8. (-7)(-7)

9. 78(-1)

10. $(-3)^3$

11. $(-1)^4$

12. $(-8)^2$

13. Find -5 cubed.

14. Find the product of 13 and -31.

15. 5(4)

16. 3(−1)

17. (-5)(8)

18. -7(4)(8)

19. (-5)(4)(-1)

20. $-5(-1)^3$

21. $-(-5)^2(4)$

22. -4(8) - (-5)

23. $(4)^2 - 4(-5)(-1)$

24. RECREATION Hiking up a mountain, you notice that the air temperature drops 10°C for every 1,000 meters increase in elevation. Write a multiplication expression to represent the decrease in temperature if you hike up the mountain 3,000 meters. Then evaluate the expression and explain its meaning.

Why Did the Cow Give Only Buttermilk?

Do each exercise and find your answer in the corresponding answer column. Write the letter of the exercise in the box containing the number of the answer.

S -2(-1 + 6)

Answers:

Answers:

(H) 9(-4 – 3)

(33) -44

F) (7 + -12) · 9

(-1 - -8) + 4

1 -60

(E) (-8 · -3) - -5

(13) -24

(-2 7)

(12) -32

-45

(L) $(-9 + -2) \cdot 4$

(15) -10 (19) 13

S) -2(-11 + -4)

<u>4</u> 36

(1) 20 + (5-12)

(6) 29

(-15 + 9) --

8) 30

24) 15

A -4 · -2 · -4

(24) 11

(A) -3(-7 + 1)

3 18

(32) -5

28

 $(N) (-6 \cdot 2) + (2 \cdot -6)$

(27) -63

(E) (-3 · -6) - (5 · -2)

G) 8(16 + -7)

Answers: $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{9}$ $\frac{1}{3}$

Answers:

(T) 9(20 - 30)

(25) -33

M) -5 · 8 · -2

(28) -28

(R) (-14-6) + 35

(29) 15

C -10 - (99 - 100)

23 0

~

34) -16

0) 10 (33 100

26) 4

H (-5 + 1) · -12

(18) 72

V) -6(-6 + -6)

20) 72

(E) 4 – (2 – 15)

9 17

(31

(T) -11 (-7 - -10)

(4) -90 (30) -30 (

7) -54

80

15

(K) (-5 · -4) + (-6 · 6)

(16) 48

B (-1 + -1) · (-1 - -1)

(7 + -15) - 20

11) -9

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34

Key Concept

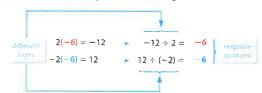
Divide Integers with Different Signs

The quotient of two integers with different signs is negative.

 $-64 \div 8 = -8$

Examples $33 \div (-11) = -3$

You can divide integers provided that the divisor is not zero. Since multiplication and division sentences are related, you can use them to find the quotient of integers with different signs.



Dividing Integers IP p and a are integers and a does not extent O,

244 Chapter 3 Integers

1. Find $80 \div (-10)$.

Examples

 $80 \div (-10) = -8$

The quotient is negative

2. Find $\frac{-55}{11}$.

The integers have different signs

 $\frac{-55}{11} = -5$

3. Use the table to find the constant rate of change in centimeters

per hour. The height of the candle

decreases by 2 centimeters each hour.

 $\frac{\text{change in height}}{\text{change in hours}} = \frac{-2}{1}$

So, the constant rate of change is -2 centimeters per hour.

Got It? Do these problems to find out.

a. $20 \div (-4)$

c. −45 ÷ 9

Time (h) Height (cm)

Divide Integers with the Same Signs

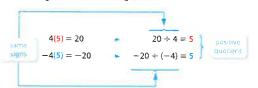
Key Concept

Examples $15 \div 5 = 3$

 $-64 \div (-8) = 8$

The quotient of two integers with the same sign is positive.

You can also use multiplication and division sentences to find the quotient of integers with the same sign.



Examples

4. Find $-14 \div (-7)$.

 $-14 \div (-7) = 2$ The quotient is positive

The integers have the same sign

6. Evaluate $-16 \div x$ if x = -4.

 $-16 \div x = -16 \div (-4)$

Replace x with = 4.

Divide. The quotient is positive.

Got It? Do these problems to find out.

d. $-24 \div (-4)$

e. $-9 \div (-3)$

g. Evaluate $a \div b$ if a = -33 and b = -3.

Lesson 5 Divide Integers 245





Example



7. One year, the estimated Australian koala population was 1,000,000. After 10 years, there were about 100,000 koalas. Find the average change in the koala population per year. Then explain its meaning.

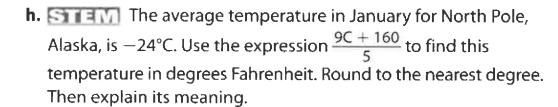
$$\frac{N-P}{10} = \frac{100,000 - 1,000,000}{10}$$
$$= \frac{-900,000}{10} \text{ or } -90,000$$

N is the new population, 100,000. P is the previous population, 1,000,000.

Divide.

The koala population has changed by -90,000 per year.

Got It? Do this problem to find out.





h. _____

Lesson 5 Homework Practice

Divide Integers

Divide.

1.
$$42 \div (-7)$$

2.
$$45 \div (-5)$$

$$3. -9 \div 3$$

4.
$$-64 \div (-8)$$

5.
$$-39 \div (-13)$$

6.
$$-121 \div 11$$

7.
$$\frac{-48}{12}$$

8.
$$\frac{-35}{7}$$

9.
$$\frac{-38}{-2}$$

10.
$$\frac{32}{-16}$$

11.
$$\frac{55}{-5}$$

12.
$$\frac{-63}{7}$$

13. Divide 75 by
$$-25$$
.

14. Find the quotient of
$$-30$$
 and -15 .

ALGEBRA Evaluate each expression if f = -15, g = 5, and h = -45.

15.
$$-20 \div g$$

16.
$$90 \div h$$

17.
$$h \div f$$

18.
$$fg \div 25$$

19.
$$\frac{f-h}{10}$$

20.
$$\frac{g-5}{-1}$$

21.
$$-f \div g$$

22.
$$\frac{h-3g}{f}$$

23.
$$\frac{f+h}{-g}$$

24. ZOOLOGY The table below shows the weight in pounds of large adult males in the cat family.

Cat	Cheetah	Cougar	Leopard	Lion	Tiger
Weight	143	227	200	550	400

- a. What is the mean weight of these cats?
- **b.** What is the mean weight of the two largest cats?

MIDDLE SCHOOL MATH WITH PIZZAZZ! BOOK E © Creative Publications

What Should a Boy Do If He Loses a Knee?

Do each exercise and find your answer in the corresponding set of answer boxes. Write the letter of the exercise in the box containing the answer.

(B)
$$(-18 \div -2) + (28 \div 7)$$

(H)
$$(12 \div -4) + (-64 \div 8)$$

$$\bigcirc \qquad \frac{72}{9}$$

$$P = \frac{-13}{13}$$

$$\bigcirc$$
 $\frac{-100}{-25}$

$$T$$
 $\frac{-42}{7}$ + $\frac{-21}{-3}$

$$\frac{-40}{-4}$$

$$\bigcirc$$
 $\frac{300}{-5}$

$$\bigcirc \frac{45}{3}$$

$$\bigcirc \frac{36}{9} + \frac{40}{-5}$$

E-65

15	-12	18	1	-60	60	11	-15	13	8	12	-4	-7	-5	-8	7	10	-11	4	-1

$$(F)$$
 $(25 \div ^-5) + (16 \div 2)$

$$(s)$$
 (-63 ÷ -7) + (-15 ÷ 15)

$$\mathbb{E}$$
 $\frac{100}{5}$

$$\frac{-75}{25}$$

$$\bigcirc \frac{180}{18}$$

$$\frac{42}{-6} + \frac{-150}{3}$$

$$\bigcirc$$
 $\frac{-32}{8}$

-99

40

7

-5

-7

$$\bigcirc$$
 $\frac{-36}{-18}$

8

-3

4

3

-4

$$A \frac{77}{-11}$$

-2

-6

-10

-57

5

-20

$$\sqrt{\frac{-990}{-10}} + \frac{0}{-9}$$

99

20

2

10



All Operations with Integers (A)

Use an integer strategy to find each answer.

$$(+15) \times (+7) =$$

$$(-2) \times (-11) =$$

$$(+5) - (-9) =$$

$$(+96) \div (-12) =$$

$$(+30) \div (+2) =$$

$$(-4) + (+13) =$$

$$(+2)$$
 - (-9) =

$$(+70) \div (+5) =$$

$$(+11) + (-15) =$$

$$(+13) - (+12) =$$

$$(-4) + (-3) =$$

$$(+2) \times (+8) =$$

$$(+4) - (-8) =$$

$$(+4) + (-6) =$$

$$(-150) \div (+10) =$$

$$(-3) - (+12) =$$

$$(-3) \times (-4) =$$

$$(-9) \div (-3) =$$

$$(+10) \div (-5) =$$

$$(-14) \times (-15) =$$

$$(-1) - (-3) =$$

$$(-39) \div (+13) =$$

$$(-14) + (+2) =$$

$$(-7) + (+11) =$$

$$(+12) + (+11) =$$

$$(+13)$$
 - (-15) =

$$(+14) \times (+5) =$$

$$(+2) + (+10) =$$

$$(+8) + (+7) =$$

$$(+4) \div (-2) =$$

Cruising



Wow. These ships are huge. The ship pictured above is the Carnival ship, Triumph. There have been several newsworthy cruise ship events this year. On February 10th, a Sunday morning, there was a fire in this Triumph's engine room and her propulsion system was damaged. The ship had a backup generator for electricity but no way to power the propulsion system or most of the electrical needs for such a huge operation. All 4,228 people on board (3,142 passengers and 1,086 crew members) were stranded on the ship in the middle of the Gulf of Mexico.

The ship was tugged to Alabama and finally docked on Thursday night, Feb 14th near midnight. The cruise was supposed to be a 4-day cruise but on the third day, the fire broke out. After the ship lost propulsion it took 5 days for the ship to be tugged to a port.

1. How long were those people on a ship that was prepared for a 4-day cruise?

I started wondering how much such a huge ship needs onboard to care for so many people. Here's what I've found. I wondered about water, food, and waste containment.

Water

The ship needs water for drinking, cleaning, laundry, showers, cooking, and ballast. It's estimated that each person on board requires 80 to 100 gallons of water a day.

2. How much water did this ship need to supply for all of those people for all of those days?

Luckily the ship doesn't have to carry that much water. The water on cruise ships comes from two places ... the ship's water tanks and the ocean. That means that the ship has to be ready for 4,288 daily showers, meals three times a day, dishes, pools and fountains, bottles for drinking and many other things.

I found data on the water needs for a 3,400-person cruise per day. 3,400 people on a ship will need about 200,000 gallons of water daily.

3. Use the numbers that I found to calculate how much water the people on the Triumph would need for their entire, unexpectedly-long cruise.

That is a lot of water. Before each trip, ships are stocked according to how many passengers and how long the journey. Water items loaded from ports include bottled and reserves which should equal about half the expected water needs. Reserve water is delivered to the ship for it's holding tanks but actually only accounts for 10% of all water used on board.

While sailing, ocean water is collected and run through the ship's filtration systems. After cleaning, it is sent into the tanks, where it can be used for staff and passenger needs, including cooking, cleaning, laundry, and drinking. The filtration system is massive and very advanced.

Water for showers, laundry, and washing is heated by first using that water as the coolant for the ships engines. Ships work diligently to economically meet all of their power needs.

Food

Cruise ships are known for their abundance of food. The US Department of Agriculture estimates that the average person in the United States eats $\frac{1}{2}$ pound of meat, 1.6 pounds of dairy products, .2 pounds of fats and oils, .8 pounds of fruits, .7 pounds of vegetables, .5 pounds of grains, and .4 pounds of sugars per day for a total of 4.7 pounds of food per day.

4. Calculate how many pounds of food were necessary for all of those days and all of those people while the Triumph was at sea ... at a minimum.

Garbage and waste

At sea, each cruise ship needs to either store and carry back to port, or safely dispose of several kinds of waste. Cruise ships generate the following;

- "Gray water" from sinks, showers, laundries and galleys
- Sewage or "black water" from toilets
- Oily bilge water
- Hazardous wastes (including perchloroethylene from dry-cleaning, photo-processing wastes, paint waste, solvents, print shop wastes, fluorescent light bulbs, and batteries)
- Solid wastes (plastic, paper, wood, cardboard, food waste, cans, and glass)
- And air pollution from the ship's diesel engines

I found the following data about the quantities of waste created **per day** by a 3,000-passenger cruise ship. Use the following data to help me figure out how much of these types of waste was created by the Carnival ship, Triumph.

5.

For a 3,000 passenger ship (per day)	For a 4,000 person ship	For a 7 day voyage
255,000 gallons of non-sewage		
gray water		

Cruise ships are also permitted to release untreated gray water (non-sewage wastewater) from galleys, dishwashers, baths, sinks, showers, and laundries - anywhere they sail, except Alaska.

6.	For a 3,000 passenger ship (per day)	For a 4,000 person ship	For a 7 day voyage
	30,000 gallons of sewage		

Cruise ships can lawfully release untreated sewage, or black water, anywhere beyond three miles from the shore (except in certain areas of Alaska). Ships are also required to have onboard waste treatment systems.

7. If you could, would you like to go for a swim near the cruise boat while you were more than three miles from shore?

Toxic chemicals generated by cruise ships are generally from photo developing, dry cleaning, painting and other activities. Ships are required to store these wastes onboard while under way, and then, once in port, to transfer them to a disposal facility.

8.	For a 3,000 passenger ship (per day)	For a 4,000 person ship	For a 7 day voyage
	15 gallons of hazardous or		
	toxic waste		

9.	For a 3,000 passenger ship (per day)	For a 4,000 person ship	For a 7 day voyage
	7 tons of garbage and solid waste		

Cruise ships are barred from dumping plastics anywhere at sea and floatable garbage within 25 miles of shore. They are permitted, however, to dump garbage that has been ground into pieces smaller than one inch when they are three miles from shore, and they can dump unground garbage when they are at least 12 miles from shore.

- 10. List 2 or three concerns that these calculations have impressed upon you.
- 11. What concerns might arise if a ship's cruise time was extended by an emergency?

on the ship and the length of the voyage.	
Destination	
Length of voyage	
Quantity to be Budgeted for (don't forget proper units)	
	Destination Length of voyage

Now it is time to plan and budget for your own cruise ship. Give your ship a name and a destination. Include

Sources: http://www.cbsnews.com/8301-201 162-57569542/passengers-finally-leaving-disabled-cruise-ship/

http://en.wikipedia.org/wiki/Carnival Triumph

http://www.beachapedia.org/Cruise Ship Pollution

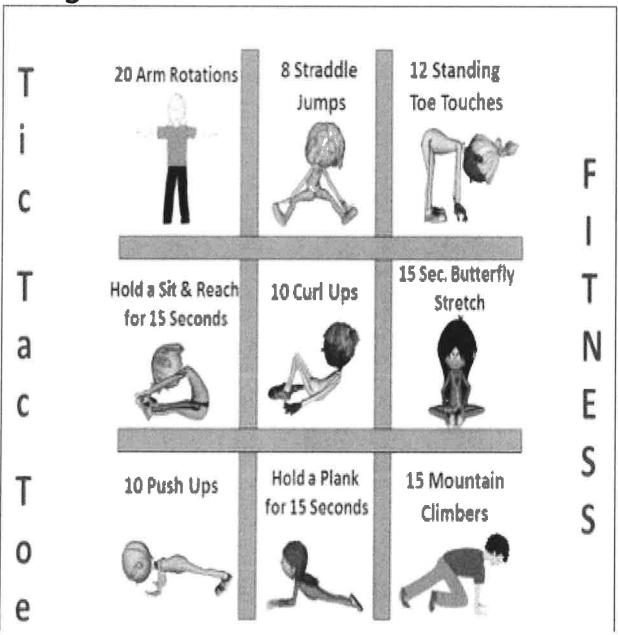
http://boards.cruisecritic.com/showthread.php?t=878157

http://ga.water.usgs.gov/edu/qa-home-percapita.html

http://voices.yahoo.com/where-water-comes-cruise-ship-7600500.html?cat=16

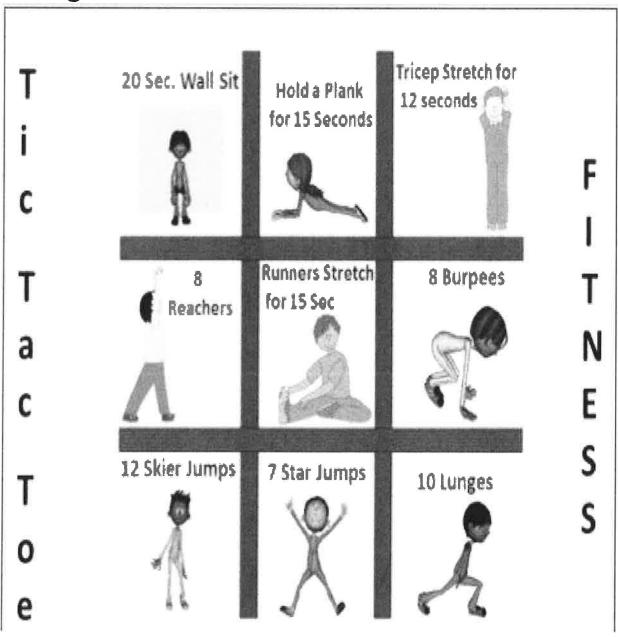
TIC TAC TOE #1

Find some tokens and complete three games with a family member if you can! (Or, videochat a friend and challenge them to a game!)



TIC TAC TOE #2

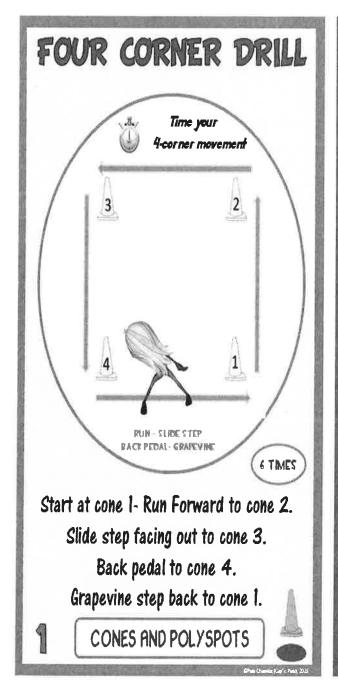
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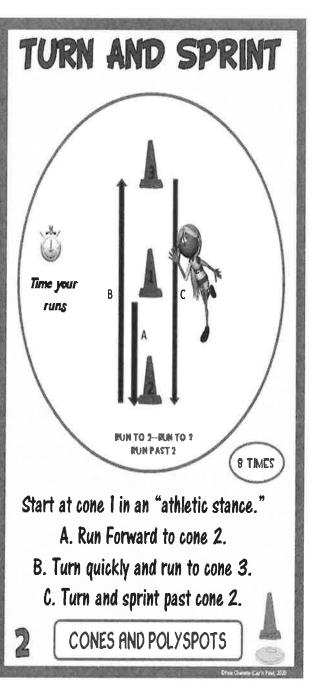


CHALLENGE COURSES

Choose one to complete or alternate between the two!

(You could use cardboard boxes for cones and number them!





HOKEY POKEY AEROBICS

(SING ALONG WITH FAMILY MEMBERS)

HOKEY POKEY AEROBICS (WITH FAMILY MEMBERS)

Hokey Pokey Song by Maximo - Sing while doing the corresponding movement:

- Put your right foot in (lunge forward on the right leg)
- Put your right foot out (return to standing position)
- Put your right foot in and shake it all about (lunge forward on right leg and lightly bounce up in down in lunge position)
- Do the Hokey Pokey and turn yourself around (do jumping jacks while turning in a circle)
- Repeat above but do the opposite for the left leg.
- Continue to sing while working the following body parts
- Right arm and left arm (in-extend arm at the elbow, out-flex arm at the elbow, shake- bicep curls)
- Head (in-slowly touch chin to chest, out-back to starting position, shake- slowly side to side)
- Right hip and left hip (in-side jump in, outside jump out, shake- jump side to side)
- Whole self (in-forward jump, out-backward jump, shake-jump in and out)
- Finish with "Do the Hokey Pokey and turn yourself around, that's what it's all about!"

Variation(s) - Each time your turn yourself around you can incorporate different movements:

- Hopping on one foot Leg squats
- Running in place

Self-Renewal Menu

Body T

Savor a cup of coffee or tea.

Do yoga.

Take a nap.

Bake something that smells delicious.

Go to bed early.

Take a bath or long, hot shower.

Take a walk or hike.

Take five deep, calming breaths.

Savor your favorite dessert.

Exercise.

Hug someone or ask for a hug.

MIND



Read a good book just for fun!

Write in your journal.

Do something crafty.

Read poetry.

Do a crossword or jigsaw puzzle.

Eliminate screen time for an hour.

Visualize how you want things to be.

Listen to music you enjoy.

Practice being present.

Take a class on something you're curious about.

Take a vacation or "stay-cation."

Heart W

Play with, nap with, or pet your pets.

Look through an old photo album or diary.

Phone a friend you haven't connected with in a while.

Volunteer.

Write down three things you're grateful for every day.

Smile at a stranger.

Watch a funny movie.

Allow others to help you!

Connect with former students and their families.

Have some family fun.

Don't forget how much you love what you do.



Relax in the shade and daydream.

Sit outside and watch the clouds, birds, people, etc.

Put on your favorite music and dance or sing.

Meditate.

Watch the sun rise.

Make a vision board. Dream big!

Say "goodbye" to feeling guilty.

Say "no" to the unimportant.

Stop the comparisons.

Enjoy the outdoors.

Plant a garden.



Be Good to Yourself Every Day

Renew your body, mind, heart, or soul every day. Track your renewal: Fill in the dates and circle the dimension(s) you renew each day. Pause at the end of each week to reflect.

WEEK	OF:						REFLECTION: What really energized me?
3	M	Ť	W	TH	F	5	
Ä		Ï	Ï		T		Which dimension needs more attention?
9	©	9	(a)	9	9	(Which dimension needs more attention:
							What will I do differently next week?
\square			\Box	Œ.	\Box		
WEEK	OF:						REFLECTION: What really energized me?
S	M	Ť	W	TH	F	5	
		Ť	w fi	TH	F	: X	What really energized me?
S	M	-	457.00		(FT)	etces.	
5	M					Ä	What really energized me? Which dimension needs more attention?

Leaderin Me.