



Teacher Created Resources®

Skill Building For Grade 8



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Change for a Dollar



Math

Week 1: Monday

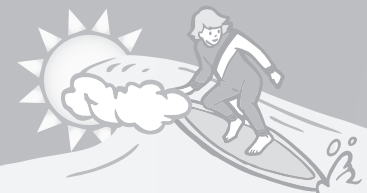
There are over 100 ways to make change for a dollar. How many ways can you find?

Directions: Find as many coin combinations as you can. Each one must equal a dollar. List the coins in order on each line, from greatest value to smallest value. The list has been started for you.

Abbreviations

p = penny n = nickel d = dime q = quarter hd = half dollar

2 hd	_____	_____	_____
1 hd, 2 q	_____	_____	_____
1 hd, 5 d	_____	_____	_____
1 hd, 10 n	_____	_____	_____
	_____	_____	_____
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Running to Win

Week 1: Monday

Reading

What was called “the most daring move ever seen on a track” occurred on August 4, 1936, in Berlin, Germany. The “move” was performed by John Woodruff, a black American competitor, in the middle of the 800-meter running race at the 1936 Olympic Games. Young and inexperienced, Woodruff was only a 21-year-old college freshman when he earned his spot on the United States Olympic team.

At the start of the race, the 6-foot 3-inch (2 m) tall Woodruff became trapped, boxed in by the more experienced runners. All the spectators assumed Woodruff would lose. He was surrounded, and if he broke between the two leaders, he would be disqualified with a foul. Woodruff may have been an inexperienced novice, but he was a quick thinker. He made a decision, and as the crowd gasped in disbelief, he acted on it.

Woodruff came to a complete stop. After waiting until all the other runners in the pack had passed him, he quickly moved to an outside lane. Once alone and in the outer lane, Woodruff charged for the winner’s tape that stretched across the finish line. As the roars of the astonished crowd filled the stadium, Woodruff extended his stride so that it measured nearly 10 feet (3 m), and with a burst of speed he took the lead. Woodruff was victorious, with a winning time of 1 minute, 52.9 seconds.

Directions: Answer the following questions based on the passage.

1. One could say that when Woodruff made his move, it was like giving the other runners
 - a. a foul.
 - b. an affront.
 - c. a head start.
 - d. a spot in an outer lane.
2. From this story, one can learn that
 - a. runners can be disqualified.
 - b. only daring runners win gold medals.
 - c. runners always want the inside lane.
 - d. older runners have an edge over younger runners.

3. Tell what the numbers mentioned in the story “Running to Win” refer to.

4 _____	6' 3" _____
1936 _____	10 _____
21 _____	1:52.9 _____

Challenge: Imagine “Running to Win” is a newspaper article and you need to come up with a new title for it. Write down a headline that gives readers a good idea of what they will learn in the article. Your headline must be less than 10 words long.

Weight of a World



Science

Week 1: Tuesday

When you step on a scale, it measures how powerfully Earth's gravity is pulling on you. Your weight is expressed in pounds. The surface gravity of each planet, moon, or object in the solar system is different. Some planets have a greater gravitational pull than Earth. Others have less. This chart shows the surface gravity on each planet. Earth has a 1 and is the basis of comparison for all other planets.

Planet	Surface Gravity	Percent
Mercury	0.38	38%
Venus	0.91	91%
Earth	1.00	100%
Mars	0.38	38%
Jupiter	2.36	236%
Saturn	0.92	92%
Uranus	0.89	89%
Neptune	1.12	112%

Directions: Estimate the weight of an object. Then, multiply the weight times the surface gravity of each planet listed above. Use the decimal to multiply.

Example: 100 pounds x 0.38 surface gravity = 38 pounds (weight on Mercury)

Estimate the weight of a large watermelon or pumpkin. Calculate its weight on each planet. List your answers on this chart.

Now choose something much heavier, like a piece of furniture or a large boulder. Compute the weight of this new object on each planet.

Planet	Weight
Mercury	_____
Venus	_____
Earth	_____
Mars	_____
Jupiter	_____
Saturn	_____
Uranus	_____
Neptune	_____

Planet	Weight
Mercury	_____
Venus	_____
Earth	_____
Mars	_____
Jupiter	_____
Saturn	_____
Uranus	_____
Neptune	_____

Challenge: The moon's surface gravity is 0.17. What would each object weigh on the moon? Pluto's surface gravity is 0.06. What would each object weigh on Pluto?



Developing Your Ideas

Week 1: Tuesday

Writing

Many authors draw on past experiences when they are writing. Reread a passage from a favorite book. Think about what experiences the author might have used from his or her own life when writing this passage.

What interesting experiences happened in your past? Do you have any relatives who said or did odd things? How did you react? Think of a time when something unusual happened in your family just because one person acted a certain way.

Directions: Brainstorm unique family situations. Then write about a specific event. You may add extra fictional details if you like. If you need a starter, use the following prompt:

“When _____ came to visit, _____.”
(a relative) (the event that happened)

Read what you wrote. How did you incorporate relevant details? Have you included too much unnecessary information?

Challenge: Think of a sport you would like to try. On another piece of paper, draw a picture showing a character playing that sport. Then write a story about the character’s (your) adventure.

Ideas: rock climbing, surfing, curling, discus, croquet, shot put, lawn bowling, water polo

Boyd's Home Inspection



Math

Week 1: Wednesday

Boyd is a home inspector. He also does minor installations. The larger the room that he must inspect, the more he charges for his services. When he is asked to inspect a room, the first thing that he must do is find the area and perimeter. He uses this information to calculate individual prices for his services.

Directions: Complete the input/output tables and answer the questions.

Part I

Complete the following table to help Boyd. The sizes for the rooms that he will measure will increase by equal amounts. Figure out the equal amount that the room increases by and use that amount to calculate the measurements of the other rooms. You will develop a rule and that rule will help you make all of the other calculations.

Rule: _____

Input: x	Output: y
540 sq. feet	\$1,080
600 sq. feet	\$1,200
660 sq. feet	
720 sq. feet	
780 sq. feet	

For this input/output table, the input (x) is equal to the area of the room and the output (y) is equal to the service price.

1. What steps did you follow in order to determine the rule for the table?

2. For the table above, is the statement "x multiplied by 2 is equal to y" true?

Part II

Boyd orders materials for a room based upon its size. He is preparing to install baseboards. This item will be installed around the perimeter of each room. Help him to complete the table.

The rule for the table is given below. Use the rule to complete the pricing guide for baseboard installation.

Rule: Input multiplied by 150% is equal to output

Input: x	Output: y
100 feet	\$150
200 feet	\$300
300 feet	
400 feet	
500 feet	

For this input/output table, the input (x) is equal to the perimeter of the room and the output (y) is equal to the service price.

1. How much will Boyd and his associates charge to install baseboards for a room that has a 400 ft. perimeter? _____
2. If the client had a room with a perimeter of 150 ft., what would be the baseboard installation price? (Hint: Use the rule from the table to calculate your answer.)



Just Like New!

Week 1: Wednesday

Reading

Part I

Directions: Fill in the missing words in the advertisement below. Use this glossary to help you.

tamper — to interfere

decrepit — broken down

assure — to promise

salvage — to save from waste

reserve — something saved for future use

furnish — to give supplies

Computer for Sale!

This unique machine is a homemade computer that I put together from parts of other computers that I was able to (1) _____. The condition is excellent, and I suggest that you not (2) _____ with it. It will serve you well for many years just as it is. Although it is four years old, it is certainly not (3) _____.

My asking price is \$250. That's a good deal, I (4) _____ you! If you have a (5) _____ of money, this would be a good way to spend it. Call me at 555-4120. I will even (6) _____ you with a one-of-a-kind printer that I built from scratch!

Part II

Directions: Unscramble the words to spell your new vocabulary words correctly.

pecdrite _____

nurhsif _____

glavsea _____

pratem _____

sevreer _____

serasu _____

Challenge: Fill in the blanks with your new words.

1. The Abbotts keep a _____ of food in case of an emergency.
2. I can _____ you that my friend can be trusted with your money.
3. The Army will _____ the soldiers with weapons.
4. My washing machine is old and _____.
5. Do not _____ with my private journal.
6. Could they _____ anything from the shipwreck?

Landmarks

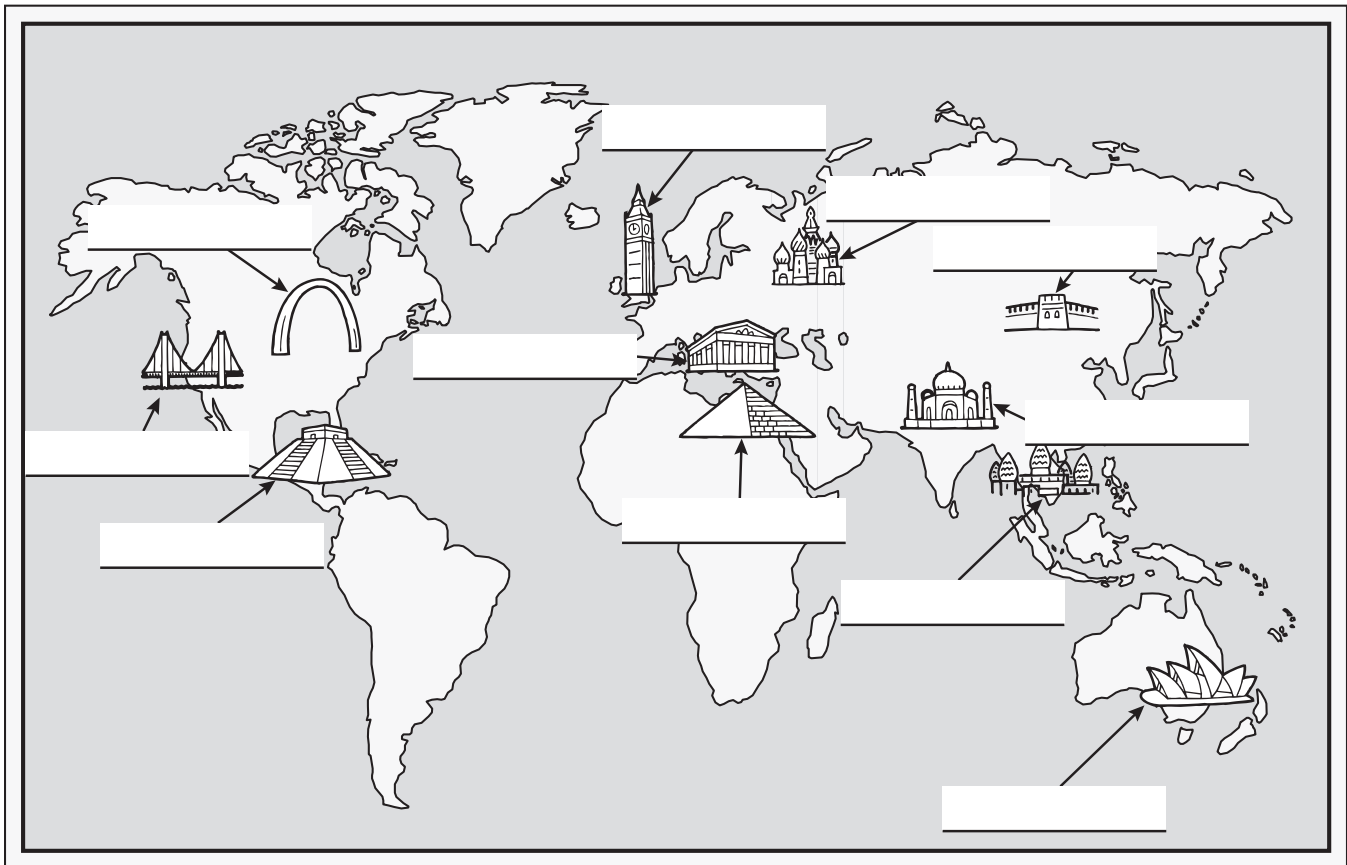


Social Studies

Week 1: Thursday

Directions: Using the landmark names listed in the box, label each landmark. Start with the ones you are sure of and use the process of elimination.

- Big Ben
- Angkor Wat
- Golden Gate Bridge
- Great Pyramid of Giza
- Taj Mahal
- Gateway Arch
- Parthenon
- Sydney Opera House
- Great Wall
- Chichén Itzá
- Kremlin





Sentence Possibilities

Week 1: Thursday

Writing

There are four main types of sentences. Good writers usually use all the types in their writing to vary sentence length and to make the text clear and graceful. Here are the four types of sentences.

simple — The sentence has only one clause.

Lena tripped on the stair.

compound — The sentence has at least two clauses separated by words like *and*, *but*, and *or* (coordinating conjunctions). Each clause could stand alone as its own sentence.

Lena tripped on the stair and the entire class saw it happen.

complex — The sentence has at least two clauses separated by words like *because*, *after*, *unless*, and *although* (subordinating conjunctions). At least one of the clauses could not stand alone as its own sentence.

Lena tripped on the stair, though she managed not to fall.

compound complex — The sentence fits the description of both the compound sentence and the complex sentence. It has at least two clauses that could stand alone and at least one clause that could not stand alone as its own sentence.

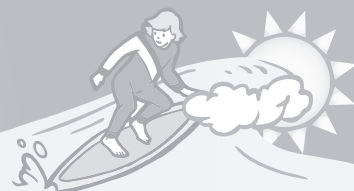
Though she managed not to fall, Lena tripped on the stair and the entire class saw it happen.

Directions: Choose the correct sentence type for each sentence.

- I received an award at the science fair.
 - simple
 - compound
 - complex
 - compound/complex
- Thomas Jefferson wrote the Declaration of Independence, and he was also an avid gardener.
 - simple
 - compound
 - complex
 - compound/complex
- Leroy never goes to the mall because he finds it boring.
 - simple
 - compound
 - complex
 - compound/complex
- Although I love to cook, I am not a very good baker and I tend to burn cookies.
 - simple
 - compound
 - complex
 - compound/complex

Challenge: Explain the four sentence types to a friend or family member and give examples. Come up with your own example for each sentence type.

Nonfiction Passage



Week 1: Friday

Test-Taking Practice

Directions: Read the passage and then fill in the bubble for the correct answer to each question.

The ground shakes when Earth's crust moves. This is called an *earthquake*. It can be caused by the crust sliding, volcanic bursts, or man-made explosions. Earthquakes that cause the most damage come from the crust sliding.

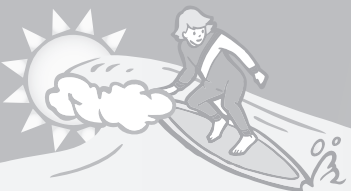
At first, the crust may only bend because of pushing forces. But when the pushing becomes too much, the crust snaps and shifts into a new position. Shifting makes wiggles of energy that go out in all directions. This is like ripples when a stone is dropped into water. These are called *seismic waves*. The waves travel out from where the center of the earthquake is located. Sometimes people can hear these waves. This is because they make the planet ring like a bell. It must be awesome to hear this sound!

The crust moving may leave a crack, or fault, in the land. Geologists, scientists who study Earth's surface, say that earthquakes often happen where there are old faults, or breaks in the crust. Where there are faults, earthquakes may happen again and again.

Sometimes, when earthquakes happen under the ocean floor, they cause huge sea waves. These waves are called *tsunamis*. They can travel across the ocean as fast as 598 miles per hour. Tsunamis can produce waves over 49 feet high.

Although earthquakes are usually frightening, keep in mind that the distance to the center of Earth is 3,960 miles. Most earthquakes begin less than 150 miles below the surface. Earthquakes are not a sign that Earth is unsteady.

- Earthquakes are caused by
 - a giant sound beneath the ground.
 - explosions and the crust sliding.
 - volcanoes.
 - b and c
- Huge waves that rush across the ocean can be caused by
 - tsunamis.
 - storms.
 - earthquakes beneath the ocean.
 - waves as high as 49 feet.
- According to the passage, seismic waves can be compared to
 - ripples in water.
 - a bell ringing.
 - faults in the ground.
 - none of these
- The author's purpose in this passage is
 - to scare the reader.
 - to inform the reader.
 - to entertain the reader.
 - to bore the reader.
- When earthquakes happen under the ocean floor, they sometimes cause
 - tidal waves.
 - jet streams.
 - tsunamis.
 - none of the above.
- You read in the newspaper that an old fault has been discovered nearby. What might happen?
 - It will swallow you alive.
 - An earthquake might happen there.
 - A flood might happen there.
 - Nothing will happen.



Rhyming Pairs

Week 1: Friday

Friday Fun

Directions: Find an adjective that rhymes with a noun so that together, the two words have about the same meaning as the phrase that is given. An example has been done for you.

- clever feline _____ witty kitty _____
- bashful insect _____
- obese feline _____
- minor car crash _____
- large swine _____
- ill hen _____
- little snack _____
- enjoyable jogging _____
- soaked dog _____
- bloody tale _____
- ailing bloodsucker _____
- light red beverage _____
- comical rabbit _____
- unhappy boy _____



Challenge: Come up with more rhyming pairs and make up clues. See if you can get a friend or family member to guess your rhyming pairs.

Answer Key

Page 12

- c
- a
- 4 = date in August that Woodruff ran
1936 = year he ran in the Olympic Games
21 = Woodruff's age when he made Olympic team
6'3" = Woodruff's height
10 = length in feet of Woodruff's stride when extended
1:52.9 = Woodruff's victory time (1 minute, 52.9 seconds)

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Part I

Rule: Multiply input by 2

540 sq. ft., \$1,080

600 sq. ft., \$1,200

660 sq. ft., \$1,320

720 sq. ft., \$1,440

780 sq. ft., \$1,560

- Answers will vary.
- Yes

Part II

100 ft., \$150

200 ft., \$300

300 ft., \$450

400 ft., \$600

500 ft., \$750

- \$600.00
- \$225.00

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Part I

- salvage
- tamper
- decrepit
- assure
- reserve
- furnish

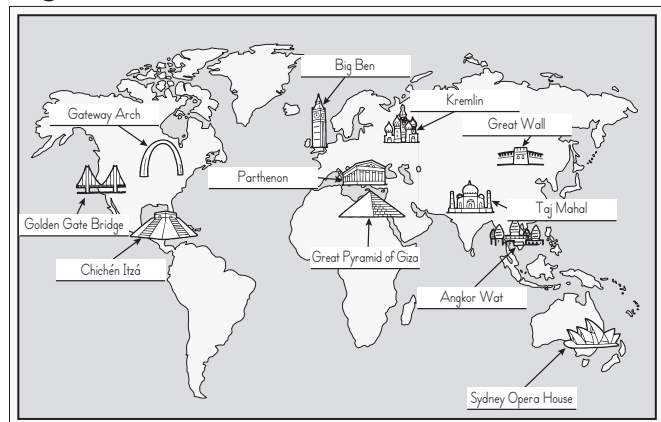
Part II

- decrepit
- salvage
- reserve
- furnish
- tamper
- assure

Challenge

- reserve
- assure
- furnish
- decrepit
- tamper
- salvage

Page 17



Page 18

- a
- b
- c
- d

Page 19

- d
- c
- a
- b
- c
- b

Page 20

clever feline — witty kitty
bashful insect — shy fly
obese feline — fat cat
minor car crash — fender bender
large swine — big pig
ill hen — sick chick
little snack — light bite
enjoyable jogging — fun run
soaked dog — wet pet
bloody tale — gory story
ailing bloodsucker — sick tick
light red beverage — pink drink
comical rabbit — funny bunny
unhappy boy — sad lad

Page 21

Part I

March — 90

April — 25

May — 70

June — 25

July — 45

August — 45

Part II

Mr. Sanders — \$5,900

Ms. Elliott — \$2,400

Mrs. Shaw — \$6,400

Mr. Smitz — \$2,900

Page 24

- a
- b
- d
- b

Page 25

- given
 - 6 in 12 or 1 in 2 (1:2, 1/2)
 - 6 in 12 or 1 in 2 (1:2, 1/2)
 - 5 in 12 (5:12, 5/12)
 - 7 in 12 (7:12, 7/12)
 - 10 in 12 or 5 in 6 (5:6, 5/6)
- 5 in 20 or 1 in 4 (1:4, 1/4)
 - 4 in 20 or 1 in 5 (1:5, 1/5)
 - 16 in 20 or 4 in 5 (4:5, 4/5)
 - 0

Remaining answers may vary.