

Fifth Grade: Benchmark 2

Parent Handbook



This handbook will help your child review material learned this quarter, and will help them prepare for their second Benchmark Test. Please allow your child to work independently through the material, and then you can check their work using the answer key in the back of the handbook. If you have any questions or concerns about this material, please contact your child's teacher.

Thank you for your support.

Fifth Grade Math Essential Standards

Learning Objective # 1:



“ I can add and subtract fractions with unlike denominators including mixed numbers.”

Practice:

1. *Simplify the following expression.*

$$3 \frac{2}{3} - 2 \frac{1}{2} =$$

- A. $1 \frac{1}{6}$
- B. $2 \frac{1}{4}$
- C. $\frac{1}{2}$
- D. $2 \frac{1}{8}$

2. *Solve.*

$$\frac{7}{10} + \frac{1}{5} =$$

- A. $\frac{4}{5}$
- B. $\frac{8}{15}$
- C. $\frac{9}{20}$
- D. $\frac{9}{10}$

Learning Objective # 2:



“ I can solve word problems involving addition and subtraction of fractions and mixed numbers.”

Practice:

3. Nikki noticed she needed $\frac{1}{10}$ of a can of paint to paint one wall. The second wall needed $\frac{8}{9}$ of a can of paint. How much paint was used to cover both walls?

- A. $\frac{8}{19}$ of a can of paint
- B. $\frac{1}{10}$ of a can of paint
- C. $\frac{9}{19}$ of a can of paint
- D. $\frac{89}{90}$ of a can of paint

4. A recipe for sugar cookies calls for $\frac{1}{2}$ of a cup of sugar and $\frac{1}{4}$ of a cup of flour. Altogether, how much sugar and flour does the recipe need?

- A. $1\frac{3}{4}$ of a cup
- B. $\frac{3}{4}$ of a cup
- C. $\frac{1}{4}$ of a cup
- D. $\frac{3}{5}$ of a cup

Learning Objective # 3



“ I can solve fraction word problems with multiplication using models or equations.”

Practice:

5. Joe’s mom spent \$60 at Target. $\frac{3}{4}$ of that money was spent on groceries. Which equation shows how much she spent on groceries?

- A. $60 \times \frac{1}{4} = \frac{60}{4}$ or \$15
- B. $60 \times \frac{3}{4} = \frac{180}{4}$ or \$45
- C. 60 divided by $\frac{3}{4} = \$80$
- D. 60 divided by $\frac{1}{4} = \$240$

6. Nicole needs $\frac{3}{4}$ cups of brown sugar for one batch of cookies. If she makes 4 batches, how much brown sugar does she need? Solve and draw a model to explain your answer.

- A. 2 cups
- B. 2.5 cups
- C. 3 cups
- D. 4 cups

Learning Objective # 4:



“I can solve word problems involving division of whole numbers with answers in the form of fractions or mixed numbers.”

Practice:

7. Mrs. Smith purchased 107 pizzas for her school. If she needed to give 14 classes, an equal amount of pizza, how much pizza would each class get?

- A. 8 whole pizzas
- B. 7 whole pizzas and $11/14$ of another pizza
- C. 7 whole pizzas and $9/14$ of another pizza
- D. 7 whole pizzas and $13/14$ of another pizza

8. Coach Riley had 205 oranges to split at half time between his 16 soccer teams. If each team received the same amount of oranges, how many oranges would each team get?

- A. 12 whole oranges and $13/16$ of another orange
- B. 13 whole oranges and $3/4$ of another orange
- C. 12 whole oranges and $3/4$ of another orange
- D. 12 whole oranges and $2/3$ of another orange

Learning Objective # 5:



“I can interpret multiplication as scaling.”

Practice:

9. Why is $\frac{3}{4} \times 7$ less than 7?

- A. It is less than 7 because 7 is multiplied by a factor less than one so the product must be less than 7.
- B. It is less than 7 because 7 is divided by a fraction
- C. It is less than 7 because 7 is multiplied by a factor less than one so the product is greater than the fraction.

10. Solve.

$$2\frac{2}{3} \times 8 =$$

- A. 16
- B. 24
- C. $21\frac{1}{3}$

Learning Objective #6:



“I can create and solve real world problems by dividing fractions and whole numbers in lowest terms.”

Practice:

11. Which expression is equivalent to $\frac{8}{9}$?

- A. $8 \div 9$
- B. $8 \div \frac{1}{9}$
- C. $9 \div \frac{1}{8}$
- D. $9 \div 1/8$

12. Reagan used 1,187 sq ft. of wrapping paper to wrap gifts for everyone in her class. If each gift used the same amount of wrapping paper and she wrapped 23 gifts, how much wrapping paper did she use for each gift?

- A. 52 sq ft
- B. $51 \frac{17}{23}$ sq ft
- C. 51 sq ft
- D. $51 \frac{14}{23}$ sq ft

Benchmark 2 Essential Math Vocabulary

- * **equivalent:** the same value
- * **mixed number:** a whole number and a fraction
- * **improper fraction:** a fraction larger than a whole
- * **fraction:** part of a whole
- * **simplest form:** to reduce the numerator and denominator to the smallest number
- * **denominator:** the number below the fraction line showing the whole part
- * **numerator:** the number above the fraction line showing the parts of a whole
- * **lowest common denominator:** the smallest number that the numerator and denominator have in common
- * **least common multiple:** the smallest multiple that is in common between both numbers
- * **greatest common factor:** the highest number that divides into two or more numbers
- * **divisor:** the number of groups being divided into
- * **dividend:** the number being divided into
- * **quotient:** the answer to a division problem
- * **reciprocal:** flip the fraction
- * **product:** the answer to a multiplication problem

Math Answer Key

1. A

2. D

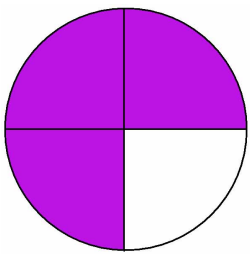
3. D

4. B

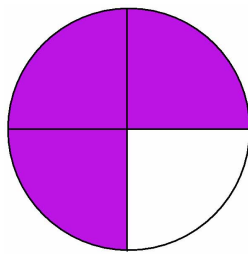
5. B

6. C

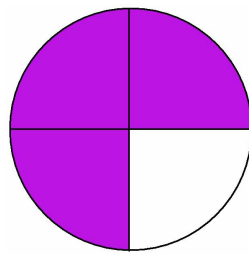
Model:



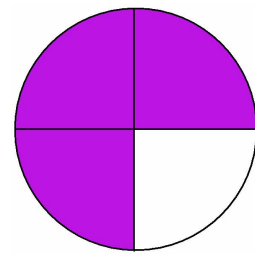
Batch 1



Batch 2



Batch 3



Batch 4

Explanation: Nicole needed $\frac{3}{4}$ cups for each batch. If you multiply $\frac{3}{4}$ cups times 4 batches - you will get $\frac{12}{4}$ cups which simplifies to 3 cups.

7. C

8. A

9. A

10. C

11. A

12. D

Fifth Grade Essential Reading Standards

Learning Objective # 1:



“I can compare and contrast the aspects of two or more texts using reading strategies (sequencing, cause and effect, etc).”

Practice:

Read Pumpkin Cake and Banana Cake and then answer the following questions.

Pumpkin Cake

Ingredients:

2 cups white sugar
1 1/4 cups vegetable oil
1 teaspoon vanilla extract
2 cups canned pumpkin
4 eggs
2 cups all-purpose flour
3 teaspoons baking powder
2 teaspoons baking soda
1/4 teaspoon salt
2 teaspoons ground cinnamon
1 cup chopped walnuts (optional)

Directions:

1. Preheat oven to 350 degrees F (175 degrees C). Grease and flour a 12x18 inch pan. Sift together the flour, baking powder, baking soda, salt and cinnamon. Set aside.

2. In a large bowl combine sugar and oil. Blend in vanilla and pumpkin, then beat in eggs one at a time. Gradually beat in flour mixture. Stir in nuts. Spread batter into prepared 12x18 inch pan.
3. Bake in the preheated oven for 30 minutes, or until a toothpick inserted into the center of the cake comes out clean. Allow to cool.

Banana Cake

Ingredients:

1 2/3 cups white sugar
2/3 cup of shortening
3 eggs
2 1/4 cups all-purpose flour
1 1/4 teaspoons baking powder
1 1/4 teaspoons baking soda
1 teaspoon salt
2 mashed ripe bananas
2/3 cup of buttermilk

Directions:

1. Preheat oven to 350 degrees F (175 degrees C). Grease and flour two loaf pans.
2. Measure all ingredients into large mixing bowl. Blend mixture on low, for 30 seconds, scraping sides of bowl. Mix 3 minutes on high speed.
3. Pour into pans. Bake in the preheated oven for 45-50 minutes, or until a toothpick inserted into the center of the cake comes out clean. Allow to cool.

1. How is Step 2 different in Banana Cake and Pumpkin Cake?

- a. In Banana Cake, you mix only the flour and sugar first, then add the other ingredients. In Pumpkin Cake, you mix all ingredients together.
- b. In Banana Cake, you mix all ingredients together. In Pumpkin Cake, you combine sugar and oil in a large bowl, blend in vanilla and pumpkin, then beat in eggs one at a time. Gradually beat in flour mixture.
- c. In Banana Cake, mix all ingredients together. In Pumpkin cake, sift together the flour, baking powder, baking soda, salt and cinnamon. Set aside.

2. How long do you bake each cake?

- a. 40 minutes
- b. 350 degrees
- c. 20 minutes
- d. until the toothpick comes out clean

Learning Objective # 2:



“I can summarize two or more main ideas of a text and explain how they are supported by details.”

Practice:

Volcanoes are mountains or hills formed when matter explodes through an opening in Earth’s surface. Very hot, melted rock called magma gathers beneath Earth’s surface. The magma begins to move toward the surface of the earth because it is lighter than the rock around it. Imagine a balloon filled with helium rising into the air. Tiny drops of magma collect until large amounts of magma are moving toward the surface. When the magma reaches an opening in the Earth’s crust, it rushes through. As it falls and cools, it hardens, leaving the mountain or hill that we call a volcano.


3. What is the main idea of the above passage?

- a) Hot, melted rock called magma gathers beneath Earth’s surface.
- b) Volcanoes are mountains or hills formed when matter explodes through the Earth’s surface.
- c) As magma cools, it hardens, leaving a mountain called a volcano behind.
- d) Magma is lighter than the rock around it.

4. What is a supporting detail from the above passage?

- a) Hot, melted rock called magma gathers beneath Earth’s surface.
- b) Volcanoes are mountains or hills formed when matter explodes through the Earth’s surface.
- c) A balloon filled with helium rises into the air.
- d) Volcanoes are very interesting things!

Learning Objective # 3:

 *“I can interpret the meaning of words or phrases in a text.”*

Practice:

5. Which is an example of figurative language?

- a. The full moon shone brightly in the night sky.
- b. The moonlight reflected off the trees and made patterns on the forrest floor.
- c. The moon is like a pale, wise face looking down on the world below.
- d. The moon shone so brightly, it seemed as if the day had never ended.

Read the passage:

The boy and his sister hiked silently through the woods searching for acorns. They suddenly saw a small stream running through the trees. The water sparkled like sugary icing on a birthday cake. The boy and his sister ran to the beautiful water and dipped their toes in the cool, icy water, and quickly forgot all about the acorns.

6. The story says that the, “water sparkled like sugary icing on a birthday cake,” because icing is often _____.

- a. sweet and delicious
- b. white and smooth
- c. shines and twinkles due to the sugar granules
- d. the topping of a cake

Learning Objective # 4:



“I can compare and contrast stories in the same genre for similar themes and topics.”

Practice:

Use the following passage to answer question 7.

Keong Mas

Prince Raden Putra was married to a princess named Dewi Limaran. One day when Dewi Limaran was walking in the palace garden, she saw a snail among her lovely flowers and she had one of her servants pick it up and throw it away. The Snail was actually an old witch who had disguised herself as a snail. The witch was very angry, so she cursed Dewi Limaran and changed her into a golden snail and threw it into the river. The stream carried it far away from the palace.

On the side of a big forest, there lived a poor widow. Her living was only fishing. One day it was a particularly bad day as she didn't catch any fish. Again and again she spread her net, but nothing got caught into it. At last she pulled up the net to go home. Suddenly she saw something shining at the bottom of it. It was only a snail. Nevertheless she picked it up and took it home. Its shell shone like gold the old woman had never seen such a snail before.

At home she put it in an earthen pot. She then went to bed and soon was fast asleep as she was very tired. The next morning when she woke up, she found to her amazement that the floor had been swept clean and there was some food on the table. She wondered who had done all this. She thought she was dreaming, but she was not. She thought and thought but could not think of anybody who could have been so generous to her.

7. The passage above is an example of a _____.

- a. historical fiction
- b. legend
- c. narrative
- d. science fiction

Use the following passage to answer question 8.

The Frog in the Shallow Well

Have you not heard of the frog that lived in a shallow well? The frog told a turtle that lived in the East Sea, "I am so happy! When I go out, I jump about on the railing beside the mouth of the well. When I come home, I rest in the holes on the broken wall of the well. If I jump into the water, it comes up to my armpits and holds up my cheeks. If I walk in the mud, it covers up my feet. I look around at the wriggly worms, crabs and tadpoles, and none of them can compare with me. Moreover, I am lord of this trough of water and I stand up tall in this shallow well. My happiness is full. My dear sir, why don't you come often and look around my place?"

Before the turtle from the East Sea could get its left foot in the well, its right knee got stuck. It hesitated and retreated. The turtle told the frog about the East Sea.

"Even a distance of a thousand li cannot give you an idea of the sea's width; even a height of a thousand ren cannot give you an idea of its depth. In the time of King Yu of the Xia dynasty, there were floods nine years out of ten, but the waters in the sea did not increase. In the time of King Tang of the Shang dynasty there were droughts seven years out of eight, but the waters in the sea did not decrease. The sea does not change along with the passage of time and its level does not rise or fall according to the amount of rain that falls. The greatest happiness is to live in the East Sea." After listening to these words, the frog of the shallow well was shocked into realization of his own insignificance and became very ill at ease.

li: a Chinese unit of length equal to half a kilometer.

ren: a Chinese unit of length, approximately equal to 21/3 meters.

8. What is the theme of the story?

- a. It is important to tell the truth.
- b. The world is a large place and we are not the only ones who exist.
- c. Show respect to those around you.
- d. Turtles can be very dangerous animals.

Learning Objective # 5:



“ I can synthesize information from multiple print or digital sources to answer questions or solve problems.”

Practice:

Read the following passage and answer the questions below.

Birds

Birds are warm-blooded vertebrate animals that have wings, feathers, a beak, no teeth a skeleton in which many bones are fused together or are absent, and an extremely efficient,, one-way breathing system. Flying birds have strong, hollow bones and powerful flight muscles.

Most birds can fly. Birds have a very strong heart and an efficient way of breathing - these are necessary for birds to fly. Birds also use a lot of energy while flying and need to eat a lot of food to power their flight.

Not all flying animals are birds; and not all birds can fly. The ability to fly has developed independently many times throughout the history of the Earth. Bats (flying mammals), pterosaurs (flying reptiles from the time of the dinosaurs), and flying insects are not birds.

9. Bird's have strong, hallow bones because this helps them to

_____.

- a. find food on the ground
- b. breathe efficiently
- c. fly easier because they are lighter
- d. find insects all over the ground

10. Based on this passage you can conclude that a bird _____.

- a. has a body built for its survival in their environment.
- b. can always fly.
- c. is always an insect.
- d. are a type of bat.

Benchmark 2 Essential Reading Vocabulary

- * **main idea**: the concept, thought, notion, or impression that is of greatest importance or influence
- * **figurative language**: writing that creates images through comparisons and descriptions
- * **metaphor**: a comparison of two unlike things that says one thing is another
- * **simile**: a comparison of two things using “like” or “as”
- * **personification**: giving human qualities to nonhuman things
- * **hyperbole**: an exaggeration that can’t possibly be true
- * **idioms**: a group of words whose meaning isn’t understood from their literal meaning (After we won the soccer game, my team was on “Cloud 9.”)
- * **genre**: a type of story (fable, tall tale, realistic fiction, adventure, fantasy, legend, fairy tale, etc)
- * **theme**: the lesson or moral of a story
- * **reputable source**: a source that has proven reliable and is created by experts in their field
- * **print source**: a book that contains facts on a specific topic

* **electronic source:** a source from the internet that contains facts on a topic

* **sequence:** the order of events that occurred

* **cause and effect:** the relationship between why something happened (the cause) and what happened (the effect)

Answer Key

1. B

2. D

3. B

4. A

5. C

6. C

7. B

8. B

9. C

10. A