Arvin Union School District

Independent Study Packet

Fifth Grade

10 Day Planner

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Arvin Union School District
Independent Study Packet

Dear Parents,

This is your guide for the days your child will be absent from school. This packet includes daily assignments for each day of absence involving all curriculum areas. You can assist your child by providing them with a quiet time every day to complete their daily assignments. Daily independent reading is included and is just as important as completing the pages in this packet. Each day, have your child check off the assignments completed on the activity tracker provided. Upon returning to school bring the completed activity tracker, with parent and student signatures, along with the work packet.

NOTE: The physical education activities may be replaced with vigorous exercise that is a part of your travels (e.g., hiking, swimming, horseback riding, skateboarding, bicycling, etc.) The important thing is to make sure your child is participating in daily activities that promote good health.

Dear Students,

You are required to do these assignments. All work must be completed to receive credit. It is best to complete the assignments on a daily basis as outlined on the activity tracker. Please keep all of your work together, and be prepared to have it checked when you return. These activities were chosen so that you can continue learning while you are absent and have fun at the same time. Please do both while you are away!

Arvin Union School District
Paquete de estudio independiente

Queridos padres,

Esta es su guía para los días que su hijo (a) estará ausente de la escuela. Este paquete incluye tareas diarias para cada día de ausencia que involucran todas las áreas del plan de estudios. Puede ayudar a su hijo proporcionándole un momento de tranquilidad todos los días para completar sus tareas diarias. Lectura independiente está incluida y es tan importante como completar las páginas de este paquete. Todos los días su hijo puede marque las tareas completadas en el rastreador de actividad provisto. Al regresar a la escuela, traiga el rastreador de actividad completo, con las firmas de el padre y estudiante, junto con el paquete de trabajo.

NOTA: Las actividades de educación física pueden reemplazarse con ejercicio vigoroso que sea parte de sus viajes (por ejemplo, senderismo, natación, equitación, patineta, bicicleta, etc.). Lo importante es asegurarse de que su hijo participe en las actividades diarias. que promueven la buena salud.

Queridos estudiantes,

Debes hacer estas tareas. Todo el trabajo debe completarse para recibir crédito. Es mejor completar las tareas diariamente como se describe en el rastreador de actividad. Mantenga todo su trabajo junto y prepárese para que lo revisen cuando regrese. Estas actividades fueron elegidas para que pueda continuar aprendiendo mientras está ausente y divertirse al mismo tiempo. ¡Por favor haz las dos cosas mientras estás fuera!

Week 1 Activity Tracker **Student name:** _____

Date: _____ **School:** _____ **Grade:** _____

M

- ❑ Reading
- ❑ Writing
- ❑ Math
- ❑ Movement/PE
- ❑ Art Project
- ❑ I read for ____ minutes.
  (K- 2nd: 15 minutes; 3rd - 5th: 20 minutes; 6th -8th: 30 minutes)

T

- ❑ Reading
- ❑ Writing
- ❑ Math
- ❑ Movement/PE
- ❑ Art Project
- ❑ I read for ____ minutes.
  (K- 2nd: 15 minutes; 3rd - 5th: 20 minutes; 6th -8th: 30 minutes)

W

- ❑ Reading
- ❑ Writing
- ❑ Math
- ❑ Movement/PE
- ❑ Art Project
- ❑ I read for ____ minutes.
  (K- 2nd: 15 minutes; 3rd - 5th: 20 minutes; 6th -8th: 30 minutes)

Th.

- ❑ Reading
- ❑ Writing
- ❑ Math
- ❑ Movement/PE
- ❑ Art Project
- ❑ I read for ____ minutes.
  (K- 2nd: 15 minutes; 3rd - 5th: 20 minutes; 6th -8th: 30 minutes)

F

- ❑ Reading
- ❑ Writing
- ❑ Math
- ❑ Movement/PE
- ❑ Art Project
- ❑ I read for ____ minutes.
  (K- 2nd: 15 minutes; 3rd - 5th: 20 minutes; 6th -8th: 30 minutes)

Student Signature: _____ **Date:** _____

Parent Signature: _____ **Date:** _____

Parent Signature: _____ **Date:** _____

Week 2 Activity Tracker **Student name:** _____

Date: _____ **School:** _____ **Grade:** _____

M

- ❑ Reading
- ❑ Writing
- ❑ Math
- ❑ Movement/PE
- ❑ Art Project
- ❑ I read for ____ minutes.
  (K- 2nd: 15 minutes; 3rd - 5th: 20 minutes; 6th -8th: 30 minutes)

T

- ❑ Reading
- ❑ Writing
- ❑ Math
- ❑ Movement/PE
- ❑ Art Project
- ❑ I read for ____ minutes.
  (K- 2nd: 15 minutes; 3rd - 5th: 20 minutes; 6th -8th: 30 minutes)

W

- ❑ Reading
- ❑ Writing
- ❑ Math
- ❑ Movement/PE
- ❑ Art Project
- ❑ I read for ____ minutes.
  (K- 2nd: 15 minutes; 3rd - 5th: 20 minutes; 6th -8th: 30 minutes)

Th.

- ❑ Reading
- ❑ Writing
- ❑ Math
- ❑ Movement/PE
- ❑ Art Project
- ❑ I read for ____ minutes.
  (K- 2nd: 15 minutes; 3rd - 5th: 20 minutes; 6th -8th: 30 minutes)

F

- ❑ Reading
- ❑ Writing
- ❑ Math
- ❑ Movement/PE
- ❑ Art Project
- ❑ I read for ____ minutes.
  (K- 2nd: 15 minutes; 3rd - 5th: 20 minutes; 6th -8th: 30 minutes)

Student Signature: _____ **Date:** _____

Parent Signature: _____ **Date:** _____

Parent Signature: _____ **Date:** _____

classic warmup



neck tilts



neck rotations



torso rotations



chest expansions



side arm raises



arm rotations



arm cirles (wide)



side-to-side hops
feet together



side-to-side hops

Daily PE Activities

SPARTAN

LEVEL I 3 sets **LEVEL II** 5 sets **LEVEL III** 7 sets **REST** up to 2 minutes



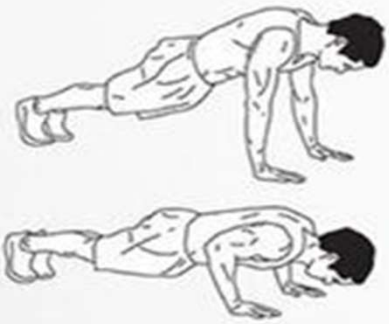
20 squats



10 jump knee tucks



20 slow climbers



to failure push-ups



20sec elbow plank



40 lunges



10 sit-ups



10 leg raises



10 reverse crunches

Day 1 Reading

Yankee Doodle Boy pp. 4-5

Read aloud the selection together, alternating paragraphs.

• **Ask** your child to then use a print or online dictionary to look up the meaning of any unknown vocabulary words.

Day 1 Writing

Writing Prompt: What is something that you are really proud of? Describe it and explain what makes you proud about it.

Grammar/Spelling: Expand,Combine, or Reduce Sentences

Day 1 Math

Complete the following math pages:

-Decimal Squares
-Standard Form/Algorithm
-Place Value Chart
-Practice It
-Math Practice

Día 1 Lectura

Yankee Doodle Boy pp. 4-5

***Lean** juntos la sección **en voz alta**, alternando parrafos.*
*• **Pídale** a su hijo/a que use un diccionario impreso o en línea para buscar el significado de cualquier palabra del vocabulario que no sepa.*

Día 1 Escritura

Mensaje de escritura: ¿Que es algo de lo que realmente te sientas orgulloso? Descríbelo y explica lo porque te hace sentir orgulloso.

Gramática/Ortografía: Expand,Combine, or Reduce Sentences

Día 1 Matemáticas

*** Complete las siguientes páginas de matemáticas:**

-Decimales Cuadrados
-Forma estándar / Algoritmo
-Gráfico de valor de lugar
-Práctica lo
-Práctica de Matemáticas

Short Read 1

Remember to annotate as you read.

Notes

Yankee Doodle Boy

excerpts* from
The Diary of Private Joseph Plumb Martin

by Joseph Plumb Martin

It was the year 1776, and the thirteen American colonies had declared their independence from Great Britain. Joseph Plumb Martin was just fifteen years old, but he wanted to help the new nation. He became one of about 200,000 who enlisted to fight the British in the American Revolution. When he was seventy years old, Joseph Plumb Martin published A Narrative of Some of the Adventures, Danger and Suffering of a Revolutionary Soldier. In the excerpts below, he tells of the British surrender at the Battle of Yorktown in 1781.

1 Soon after landing we marched to Williamsburg, where we joined General Lafayette, and very soon after, our whole army arriving, we prepared to move down and pay our old acquaintance, the British, at Yorktown, a visit. . . .

2 We went on and soon arrived and encamped in their neighborhood, . . . Here again we encountered our old associate, Hunger. . . .

3 We now began to make preparations for laying close siege to the enemy. . . .

4 . . . All were upon the tiptoe of expectation and impatience to see the signal given to open the whole line of batteries, which was to be the hoisting of the American flag. . . . About noon the much-wished-for signal went up. I confess I felt a secret pride swell my heart when I saw the "star-spangled banner" waving majestically in the very faces of our implacable adversaries. It appeared like an omen of success to our enterprise, and so it proved in reality. . . .

5 We arrived at the trenches a little before sunset. I saw several officers fixing bayonets on long staves. I then concluded we were about to make a general assault upon the enemy's works but before dark I was informed of the whole plan, which was to storm the redoubts . . .

6 Our watchword was "Rochambeau," the commander of the French forces' name, a good watchword, for being pronounced *Ro-sham-bow,* it sounded, when pronounced quick, like *rush-on-boys.*

7 We had not lain here long before the expected signal was given, . . . The word *up, up* was then reiterated through the detachment. We immediately moved silently on toward the redoubt we were to attack . . .

8 . . . Before night we were informed that the British had surrendered and that the siege was ended.



an artist's rendering of the Battle of Yorktown

* Excerpts have been adapted to accommodate the targeted reading level.

Name _____ Date _____

Expand, Combine, or Reduce Sentences

A compound sentence is made up of two simple sentences joined by a comma and a coordinating conjunction such as **and**, **or**, **but**, and **so**.

It was raining**, so** it was difficult to run the marathon.

and	or	but	so

Combine each pair of simple sentences to form a compound sentence. Use a comma and the correct coordinating conjunction from the box.

1. Mike twisted his ankle. He skinned his knee, too.

2. He wanted to play soccer. His coach advised against it.

3. Mike wanted to disregard the advice. He knew he shouldn't.

4. Should he watch the game? Should he go home instead?

5. Mike sat on the bench. His coach smiled in approval.

6. Mike wanted to participate. He made up cheers for his team.

Day 1 Math

Decimal Squares

1. The sum of every row, column, and diagonal is 9.0

		3.6
1.8	3.0	

2. The sum of every row, column, and diagonal is 39.3

14.9	10.7	
		11.3

3. The sum of every row, column, and diagonal is 11.25

	3.75	5.25
6		

4. Make up your own. The sum of every row, column, and diagonal is _____

What was your strategy for making your own decimal square?

_____

_____

_____

_____

Day 1 Math

1. **Solve, then write your sum in standard form. Use the place value mat on the following page to help you, if necessary.**

a. 1 tenth + 2 tenths = _____ tenths = _____

b. 14 tenths + 9 tenths = _____ tenths = _____ one(s)_____ tenth(s) = _____

c. 1 hundredth + 2 hundredths = _____ hundredths = _____

d. 27 hundredths + 5 hundredths = _____ hundredths = _____ tenths _____ hundredths = _____

2. Solve using the standard algorithm.

a. 0.3+ 0.82 = _____

b. 1.03 + 0.08 = _____

c. 7.3 + 2.8 = _____

d. 57.03 + 2.08 = _____

Day 1 Math

Place Value Mat

ten thousands	thousands	hundreds	tens	ones	■	tenths	hundredths
10,000	1,000	100	10	1	■	$\frac{1}{10}$	$\frac{1}{100}$
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Day 1 Math

Practice It

Add. Use base-ten blocks. Draw each result in the table.

2. 0.3 + 0.4 = _____

Ones	Tenths	Hundredths

3. 2.4 + 0.5 = _____

Ones	Tenths	Hundredths

4. 1.52 + 0.37 = _____

Ones	Tenths	Hundredths

5. 3.71 + 1.53 = _____

Ones	Tenths	Hundredths

6. 1.2 + 0.9 = _____

Ones	Tenths	Hundredths

7. 2.71 + 0.45 = _____

Ones	Tenths	Hundredths

Day 1 Math

Draw a picture.

Solve and show work.

2.5 + 9

Use any strategy.

Write a story.

Day 2 Reading

Yankee Doodle Boy pp. 4-5

Invite your child to read aloud the selection.

• Then go online or to your local library to look at a map of the Battle of Yorktown, 1781.

Day 2 Writing

Writing Prompt: What is most valuable to you and why?

Grammar/Spelling: Expand,Combine, or Reduce Sentences

Day 2 Math

Complete the following math pages:

-Decimals Worksheet
-Standard Form/Algorithm
-Place Value Chart
-Practice It
-Math Practice

Día 2 Lectura

<u>Yankee Doodle Boy</u> pp. 4-5

Invite *a su hijo/a a leer la selección en voz alta.*

• *Luego busque en línea o en su librería local un mapa de la Batalla de Yorktown, 1781*

Día 2 Escritura

Mensaje de escritura: ¿Qué es lo más valioso para usted y por qué?

Gramática/Ortografía: <u>Expand,Combine, or Reduce Sentences</u>

Día 2 Matemáticas

Complete las siguientes páginas de matemáticas:

-Decimales Hoja de trabajo
-Forma estándar / Algoritmo
-Gráfico de valor de lugar
-Práctica
-Práctica de Matemáticas

Name _____ Date _____

Expand, Combine, or Reduce Sentences

A complex sentence consists of an independent clause and a dependent clause joined by a subordinating conjunction such as **although, since, because, until, while, that, when,** and **where**. If the conjunction begins the sentence, place a comma between the clauses.

I did my homework in the library **until** it closed.

Although I worked steadily, I didn't finish the assignments.

In each sentence, draw one line under the independent clause. Draw two lines under the dependent clause.

1. The baby elephant stayed close to the herd because there was a lion nearby.

2. The herd was on high alert while the lion remained.

3. The lion gave up in exasperation since he could not get near the calf.

4. Although the herd was nervous, it did not run away.

Combine each pair of clauses to form a complex sentence. Use one of the following subordinating conjunctions: *although, since, because, until, while, that, when, where*.

5. Ants work together for survival. They are social insects.

_____

6. They are tiny. They are very strong.

_____

Day 2 Math

Example

Harold and Emma buy snacks after school. Harold spends $1.95 and Emma spends $2.20. How much money did they spend together?

I estimate they spend about $4.00 because $1.95 is almost $2.00 and $2.20 is a little more than $2.00. $2.00 + $2.00 = $4.00

100 dollar	10 dollar	dollar	dime	penny
		1 1	9	5
		2	2	0
		4	1	5

Harold and Emma spend exactly $4.15 together.

1. Sammy bought a bunch of bananas for $2.19 and a bag of grapes for $1.25. How much did he pay altogether?

100 dollar	10 dollar	dollar	dime	penny

---

2. Kendra has been saving money for a baseball glove. She does chores for her neighbors. Last week she earned $5.38. This week she earned $11.90. How much has she saved so far?

100 dollar	10 dollar	dollar	dime	penny

Day 2 Math

1. **Solve then write your sum in standard form. Use a place value mat on a separate sheet to help you, if necessary.**

a. 1 thousandth + 2 thousandths = _____ thousandths = _____

b. 35 thousandths + 8 thousandths = ____ thousandths = ____ hundredths ____ thousandths = _____

c. 6 tenths + 3 thousandths = _____ thousandths = _____

d. 7 ones 2 tenths + 4 tenths = _____ tenths = _____

e. 2 thousandths + 9 ones 5 thousandths = _____ thousandths = _____

2. Solve using the standard algorithm.

a. 0.4 + 0.7 = _____

b. 2.04 + 0.07 = _____

c. 6.4 + 3.7 = _____

d. 56.04 + 3.07 = _____

Day 2 Math

Place Value Mat

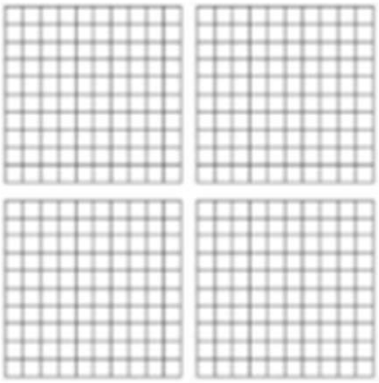
thousands	hundreds	tens	ones	■	tenths	hundredths	thousandths
1,000	100	10	1	■	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
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Day 2 Math

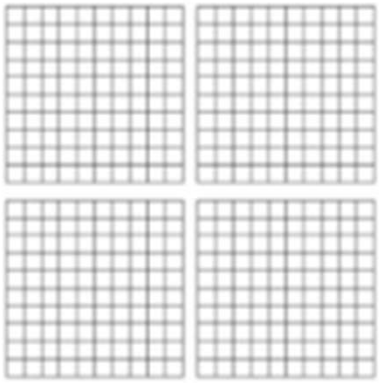
Practice It

Add. Shade the decimal models.

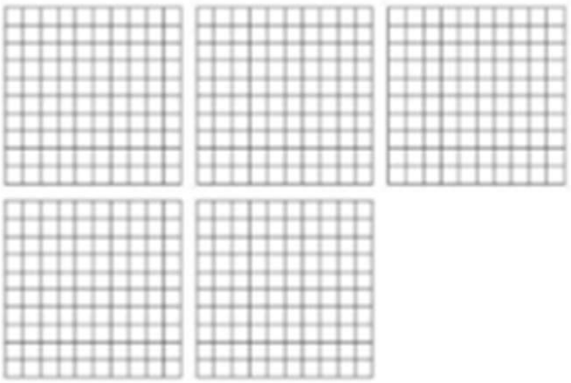
3. 2.46 + 1.13 = _____



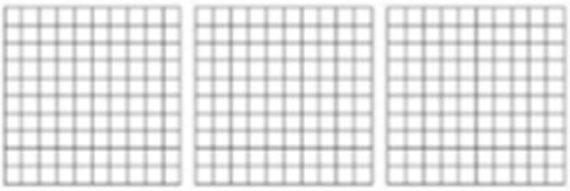
4. 2.05 + 1.87 = _____



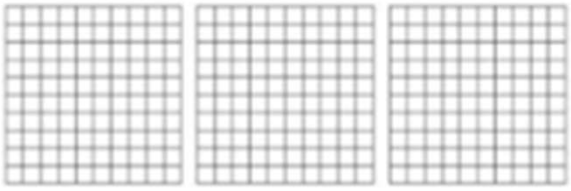
5. 2.91 + 1.8 = _____



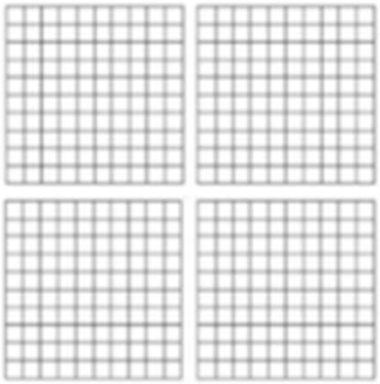
6. 1.34 + 1.15 = _____



7. 1.74 + 0.36 = _____



8. 2.05 + 1.12 = _____



Day 2 Math

Draw a picture.

Solve and show work.

$2.80 + $1.10

Use any strategy.

Write a story.

Day 3 Reading

Road to Revolution pp. 6-7

Read aloud the first two pages of the selection together, alternating paragraphs.
• Encourage your child to draw illustrations or find images online to illustrate items on the timeline.

Day 3 Writing

Writing Prompt: What is something that you are really proud of? Describe it and explain what makes you proud about it.

Grammar/Spelling: Final /əl/ and /ər/

Day 3 Math

Complete the following math pages:
-Task
-Adding Decimals
-Independent Practice
-Math Practice

Día 3 Lectura

<u>Road to Revolution</u> pp. 6-7

***Lean** juntos **en voz alta** las primeras dos páginas de la selección, alternando párrafos.*
• Anime a su hijo/a a dibujar ilustraciones o buscar imágenes en línea para ilustrar los artículos en la línea de tiempo.

Día 3 Escritura

Mensaje de escritura: ¿Qué es algo de lo que realmente te sientas orgulloso? Descríbalo y explique lo que lo enorgullece.

Gramática/Ortografía: <u>Final /əl/ and /ər/</u>

Día 3 Matemáticas

Complete las siguientes páginas de matemáticas:

-Tarea
-Adición de decimales
-Práctica independiente
-Práctica de Matemáticas

Short Read 2

Remember to annotate as you read.

Notes

Road to Revolution

by Susan Buckley

1 For 150 years Great Britain's thirteen American colonies had had time to grow and change. More than 3,000 miles of ocean separated those colonies from "the mother country." By the mid-1700s the colonists still thought of themselves as British citizens. But they also considered themselves Virginians and New Yorkers, Pennsylvanians and Georgians—all part of their colonial identity. They also thought of themselves as Americans.

2 Mostly, Britain had left the colonies alone during those years. While the colonists saw themselves as Americans, the British saw them as an economic resource. The colonists' duty was to supply resources such as sugar and tobacco to Britain and to buy British goods. Otherwise, the colonists mainly governed themselves.

Anger Builds

3 All of this changed in the 1760s, after the French and Indian War. Defending the colonies in that war had cost the British a great deal. So the British Parliament decided the colonies should help pay the bills. But they made that decision without any input from the colonists. Unlike other British citizens, the American colonists had no representatives in Parliament. They had no chance to vote on the taxation the British decided to impose on the colonies.

4 In 1765 Parliament passed the Stamp Act, which taxed many everyday items colonists used. A few years later the Townshend Acts taxed things like the tea the colonies imported from Britain. On and on it went as Parliament passed taxes and regulations that colonists despised and resented.

5 The colonists began to rebel. Calling themselves Patriots, they formed committees such as the Sons of Liberty and the Daughters of Liberty. They began to protest British actions. At first, as Patriot John Adams later said, "The Revolution was in the minds and hearts of the people." Soon, however, rebellion would take other forms.

Notes

American Revolution Time Line

1763
The end of the French and Indian War, fought between Great Britain and France, leaves Britain in debt.

1765
Britain passes the Stamp Act to tax colonists.



Sons and Daughters of Liberty organize protests.

1767
Britain passes the Townshend Acts, placing import duties on products such as tea.



1770
Colonists and British soldiers clash in Boston, leaving five colonists dead.

1773
Colonists protest the Townshend Acts by dumping tea into Boston Harbor.



1774
Britain passes the Intolerable Acts in response to colonial protests.

Colonists meet in Philadelphia at the First Continental Congress.

Name _____ Date _____

Final /əl/ and /ər/

other	battle	medical	thunder
doctors	honor	hospitals	angel

Write the spelling word that matches each definition.

1. a fight between two armies _____

2. a loud sound heard during a storm _____

3. people who are trained to treat illnesses _____

4. different, not the same _____

5. buildings where people receive medical treatment _____

Circle the incorrect word in each sentence. Then write the spelling word that makes the sentence correct.

6. We will humor her with an award. _____

7. "Be an angle and carry this for me." _____

8. I like the otter one better than this one. _____

9. Two donors performed the difficult surgery. _____

10. The bottle lasted four hours and there was no decisive victory of one side or the other. _____

Day 3 Math

Task

The table shows four people who earn the typical amount for their education level.

Name	Level of Education	Weekly Income	Name
Miley	High School Dropout	$440.50	Miley
Niko	High School Graduate	$650.35	Niko
Taylor	2-Year College Graduate	$771.25	Taylor
Pinky	4-Year College Graduate	$1,099.20	Pinky

a. How much more does Niko earn than Miley in one week?

b. If Taylor and Miley both work for 2 weeks, how much more will Taylor earn?

c. How much money will Pinky earn in a month? About how long will Miley have to work to earn the same amount?

Day 3 Math

Solve using any strategy.

2.40 + 1.8 =	**36.25 + 8.67 =**
72.564 + 5.137 =	**75.604 + 22.296 =**

Day 3 Math

Independent Practice

Add. Check for reasonableness.

3. 0.54
+ 7.8

4. 14.8
+ 10.26

5. 25
+ 8.46

6. 35.08
+ 11.9

7. 0.8
+ 0.22

8. 9.14
+ 2.05

9. 6.57 + 1.2 = _____

10. 19.21 + 11.03 = _____

11. 3.08 + 1.64 = _____

Day 3 Math

Draw a picture.

Solve and show work.

1.47 + 3.58

Use any strategy.

Write a story.

Day 4 Reading

Road to Revolution pp. 8-9

Finish reading the selection together.
- Do a dramatic reading of Washington's and Henry's speeches.
- **Ask:** How were the speeches alike? How were they different?

Day 4 Writing

Writing Prompt: What speech did you relate to and why?

Grammar/Spelling: Final /əl/ and /ər/

Day 4 Math

Complete the following math pages:

-Decimals Word Problems
-Subtracting Decimals
-My Homework
-Practice It
-Math Practice

Día 4 Lectura

<u>Road to Revolution</u> pp. 8-9

Terminen de leer *la selección juntos.*

- *Hagan una lectura dramática de los discursos de Washington y Henry.*
- ***Pregunte:*** *¿En qué se parecen los discursos? ¿Cómo fueron diferentes?*

Día 4 Escritura

Mensaje de escritura: ¿Con qué discurso te relacionas y por qué?

Gramática/Ortografía: **<u>Final /əl/ and /ər/</u>**

Día 4 Matemáticas

***Complete las siguientes páginas de matemáticas:**

-Decimales problemas verbales
-Sustracción de decimales
-Mi tarea
-Práctica
-Práctica de Matemáticas

Notes

To Fight or Not?

6 In 1769, George Washington expressed his hope that the colonies could avoid military action. (Washington was then a member of the Virginia legislature, the House of Burgesses.) He wrote in a letter:

7 *At a time when our lordly Masters in Great Britain will be satisfied with nothing less than the deprivation of American freedom, it seems highly necessary that something shou'd be done to . . . maintain the liberty which we have derived from our Ancestors; but the manner of doing it . . . is the point in question.*

8 *That no man shou'd scruple, or hesitate a moment to use arms in defence of so valuable a blessing, on which all the good and evil of life depends, is clearly my opinion; Yet Arms I wou'd beg leave to add, should be the last resource; . . .*

9 George Washington favored commercial actions such as boycotting, or refusing to buy, British goods. But soon enough, the colonists took up arms against Great Britain. The fighting began in Massachusetts, which was a hotbed of rebellion from the beginning. The first casualties were in Boston when British soldiers fired on a group of colonists. Patriots called it the "Boston Massacre."

Declaring Independence

10 Six years after Washington's letter, Patrick Henry took a very different position. Henry also was a member of Virginia's House of Burgesses. In a speech in March of 1775 he said:

11 *. . . it is now too late to retire from the contest. There is no retreat but in submission and slavery! Our chains are forged! Their clanking may be heard on the plains of Boston! The war is inevitable— and let it come!*

12 *. . . Gentlemen may cry, Peace, Peace— but there is no peace. The war is actually begun! The next gale that sweeps from the north will bring to our ears the clash of resounding arms! . . . Why stand we here idle? . . . Is life so dear, or peace so sweet as to be purchased at the price of chains and slavery? Forbid it . . . I know not what course others may take; but as for me, give me liberty or give me death!*

13 Patrick Henry was correct. Less than a month after his speech, the first shots of the American Revolution were fired at Lexington, outside of Boston.

14 A little more than a year later, in July 1776, the American colonies demanded their independence from Great Britain. They declared themselves "free and independent states," the United States of America.

American Revolution Time Line



1775
The first warfare between colonists and British soldiers takes place in Massachusetts at Lexington and Concord.

King George III declares the colonies officially in rebellion after the devastating number of British casualties at the Battle of Bunker Hill near Boston.

1776
In July, the Second Continental Congress makes the formal Declaration of Independence from Great Britain.

In August, General George Washington and his army lose a battle with the British in New York City.

1777
The American victory at the Battle of Saratoga is a turning point in the war, leading to support for the American cause.



1778
France enters the war on the side of the Americans.

1781
The British defeat at Yorktown is the beginning of the end, leading to peace negotiations.



1783
The United States and Great Britain end the war with the Treaty of Paris.

Name _____ Date _____

Final /əl/ and /ər/

other	battle	medical	thunder
doctors	honor	hospitals	angel

Write the spelling words for the given final sound.

Spelling words with final /əl/

1. _____ **2.** _____

3. _____ **4.** _____

Spelling words with final /ər/

5. _____ **6.** _____

7. _____ **8.** _____

Write a spelling word to complete each sentence.

9. Be aware! Where there is lightning, there is _____.

10. Victor looked everywhere, but couldn't find his _____ boot.

11. Gina suffered a bad ankle sprain and required _____ attention.

12. Most _____ have an emergency room for patients who need immediate care.

Day 4 Math

Sammy bought a bunch of bananas for $2.19 and a bag of grapes for $1.25. How much did he pay altogether?

Estimate	Solution

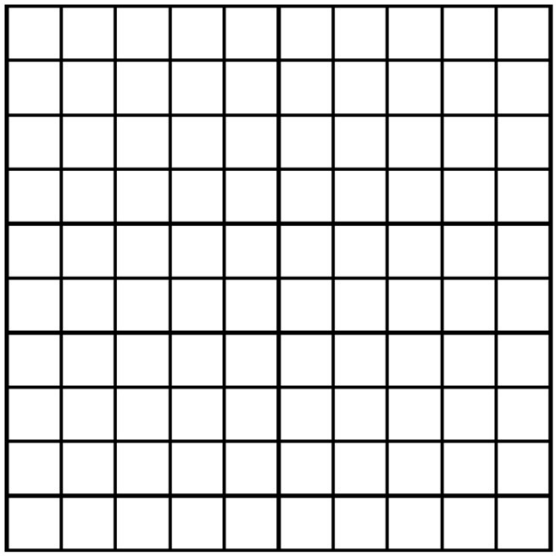
Sammy paid with a $10.00 bill. How much change did he get?

Estimate	Solution

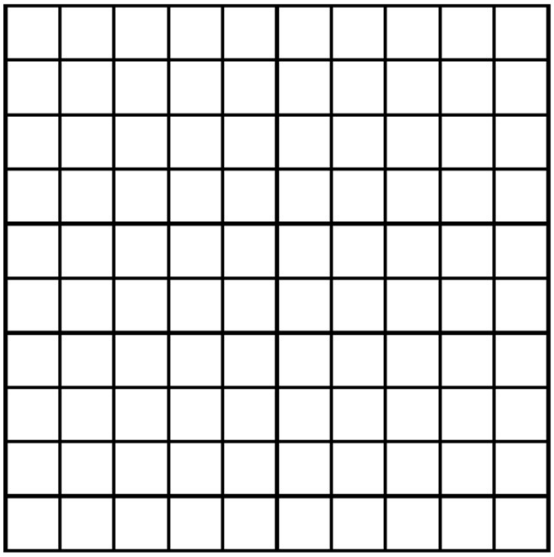
Day 4 Math

Subtract using decimal grids.

0.3 (three-tenths) minus 0.2 (two-tenths) =



0.65 (sixty-five hundredths) minus 0.35 (thirty-five hundredths) =



Day 4 Math

Name _____

Number and Operations in Base Ten
5.NBT.7

MY Homework

Lesson 9

Hands On: Subtract Decimals Using Models

Homework Helper

eHelp Need help? connectED.mcgraw-hill.com

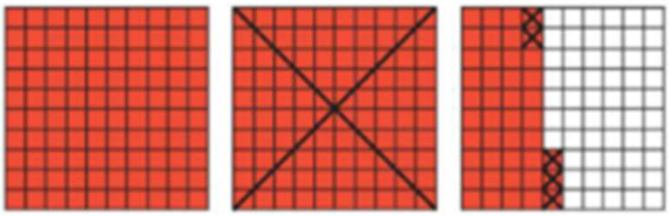
Marcy measured the lengths of two insects. The first insect was 2.43 centimeters long. The second insect was 1.05 centimeters long. What is the difference between the lengths of the two insects?

Find 2.43 - 1.05.

1 Use 10-by-10 grids to model 2.43.

To show 2.43, shade two grids and forty-three hundredths of a grid.

Forty-three hundredths is equal to 43 small squares.



2 Subtract 1.05.

To subtract 1.05, cross out 1 whole grid and 5 hundredths of the third grid.

3 Count the remaining shaded squares.

There is 1 one.

There are 3 tenths.

There are 8 hundredths.

Helpful Hint

1 one, 3 tenths, and 8 hundredths is equal to 1.38.

So, $2.43 - 1.05 = 1.38$.

The difference in the lengths of the two insects is 1.38 centimeters.

Check Use addition to check your answer.

$1.05 + 1.38 = 2.43$

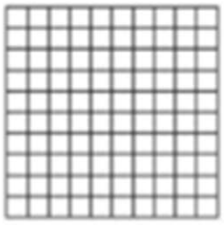
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Day 4 Math

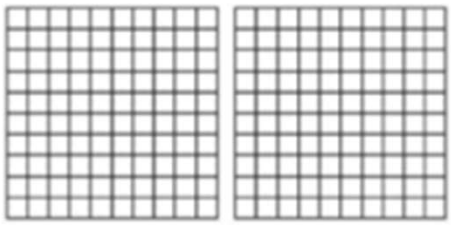
Practice It

Subtract. Use decimal models.

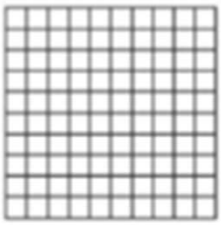
2. 0.93 − 0.7 = _____



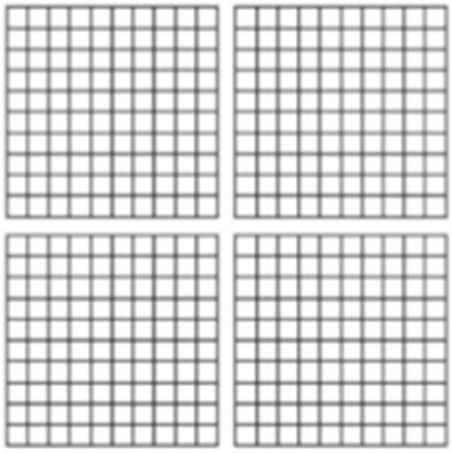
3. 1.53 − 1.41 = _____



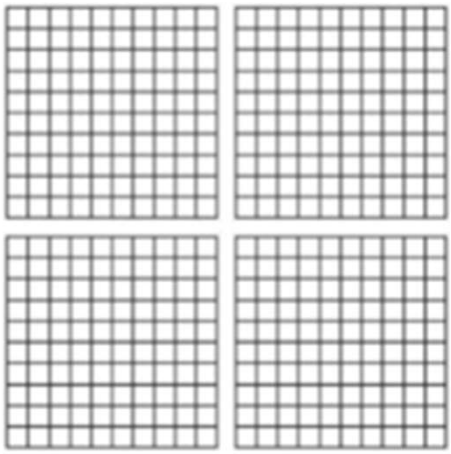
4. 0.9 − 0.3 = _____



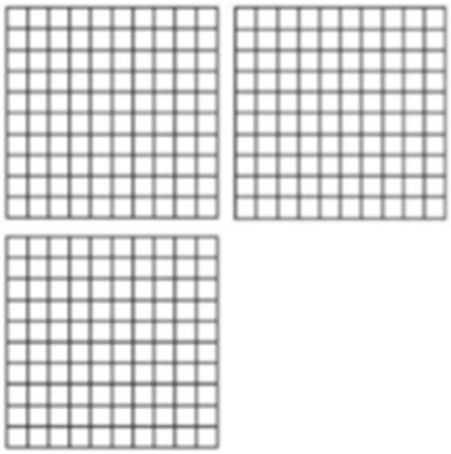
5. 3.94 − 0.4 = _____



6. 3.55 − 0.1 = _____



7. 2.4 − 0.9 = _____



Day 4 Math

Draw a picture.

Solve and show work.

3.1 - 2.4

Use any strategy.

Write a story.

Day 5 Reading

Deborah Sampson, Revolutionary Soldier p. 10

Invite your child to read aloud the selection.

• Then go online or to your local library to learn more about women who serve in the U.S. military.

Day 5 Writing

Writing Prompt: After reading **Yankee Doodle Boy**, **Road to Revolution** and **Deborah Sampson**, **Revolutionary Soldier**, which was your favorite and why? Use details from the story to support your answers.

Day 5 Math

Complete the following math pages:

-Subtraction
-Place Value Chart
-Find the Missing Number
-Independent Practice
-Math Practice

Día 5 Lectura

Deborah Sampson, Revolutionary Soldier p. 10

***Invite** a su hijo/a a leer la selección en voz alta.*
• Luego busque en línea o en su librería local para aprender más acerca de mujeres que sirven en el ejército de los EE.UU.

Día 5 Escritura

Mensaje de escritura: Después de leer **Yankee Doodle Boy**, **Road to Revolution** y **Deborah Sampson**, **Revolutionary Soldier**, ¿Cuál fue tu favorito y por qué? Usa detalles de la historia para apoyar tus respuestas.

Día 5 Matemáticas

Complete las siguientes páginas de matemáticas:

-Sustracción
-Gráfico de valor de lugar
-Encuentre el número perdido
-Práctica independiente
-Práctica de Matemáticas

Word Study Read

Remember to annotate as you read.

Notes

Deborah Sampson, Revolutionary Soldier

It is the 1780s, and the American colonies are engaged in a fierce struggle for independence from Great Britain. You are an adventurous young American who wants to join in the fight for freedom, but you are also a woman. In your day, wars are fought by men. What do you do? If you are Deborah Sampson, you come up with a bold scheme for enlisting as a revolutionary soldier.

1 Deborah Sampson was born in 1760. The daughter of poor parents, she worked as a servant and a teacher before deciding to join the fight for independence. Sampson knew that she would not be accepted on the battlefield as a woman, so she hid her identity and disguised herself as a man. Her disguise proved to be successful when she was allowed to enlist in the Continental Army under the name of Robert Shurtleff. Sampson performed bravely in battle. She survived a sword wound and a musket shot, but another medical problem finally revealed her true identity. When Sampson was put in the hospital for a fever, one of the doctors discovered that the soldier named Robert Shurtleff was really a woman!

2 Deborah Sampson received an honorable discharge from the army in 1783. After returning home from service, she became one of America's first female lecturers. Sampson traveled around the country sharing stories of her courageous military adventures and proudly showing off her soldier's uniform.

3 Sampson died in 1827 and was buried near her home in Massachusetts. In 1983, Sampson was named the official heroine of the Commonwealth of Massachusetts. She is still remembered with honor and admiration today.

Day 5 Math

1. Subtract. You may use a place value chart if necessary.

a. 9 tenths – 3 tenths = _____ tenth

b. 9 ones 2 thousandths – 3 ones = _____ ones _____ thousandths

c. 4 hundreds 6 hundredths – 3 hundredths = _____hundreds _____ hundredths

d. 56 thousandths – 23 thousandths = _____thousandths

2. Solve using the standard algorithm.

a. 1.8 – 0.9 = _____

b. 41.84 – 0.9 = _____

c. 341.84 – 21.92 = _____

d. 5.182 – 0.09 = _____

e. 50.416 – 4.25 = _____

Day 5 Math

Place Value Mat

thousands	hundreds	tens	ones	■	tenths	hundredths	thousandths
1,000	100	10	1	■	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
				.			
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Day 5 Math

Solve using any strategy.

☐ – 18.9= 33.74	41.84 – ☐ = 42.74	341.84 – 21.92 =
☐ – 0.09 = 5.272	50.416 – ☐ = 54.666	741. – 3.91 =

Day 5 Math

Independent Practice

Subtract. Use addition to check your answer.

3.
$$\begin{array}{r} 29.34 \\ -\ \ 9 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 0.4 \\ -\ 0.2 \\ \hline \end{array}$$

5.
$$\begin{array}{r} \$9.67 \\ -\ \$2.35 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 97 \\ -\ 16.98 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 42.28 \\ -\ \ 1.52 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 8 \\ -\ 5.78 \\ \hline \end{array}$$

9. $36 - 7.3 =$ _____

10. $5.6 - 3.5 =$ _____

11. $19.86 - 9.94 =$ _____

Day 5 Math

Draw a picture.

Solve and show work.

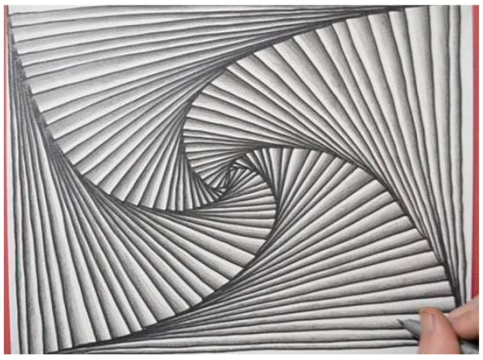
2.2 - 1.4

Use any strategy.

Write a story.

Day 1 Art

Materials: Pencil, paper, crayons or colored pencils, markers
Instructions: This week you will be using lines, colors and shapes to create different works of arts.
Designing with lines: Using just a pencil, recreate a line drawing like the one you see here. Use the whole page.



Day 2 Art

Designing using color: Take the same drawing you drew on day one and add color

Day 3 Art

Designing Design Shape: Use this colorful piece of art made out of shapes as an example to create your own work or art. Make sure you use geometric shapes with straight lines and organic shapes with curvy lines. Create your work of art using a pencil.



Day 4 Art

Designing using color: It is time to add color to your drawing from Day 3. Use crayons, markers, color pencils or a mixture of any to color your drawing.

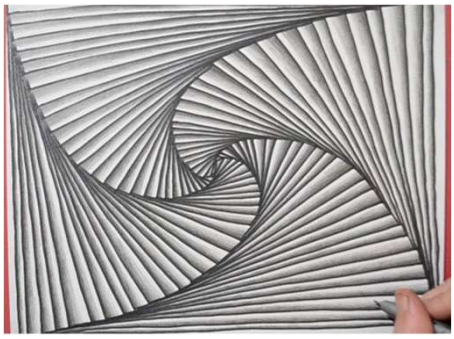
Day 5 Art

Designing: Now it is time to create your own masterpiece by using the elements of art: lines, shapes and color. We are only focusing on these three elements. Your drawing can be non-objective (weird looking with no particular focus) or objective (it looks like something or someone).



Dia 1 Arte

Materiales: Lapiz, papel, crayones o lápices de color, marcadores.
Instrucciones: Esta semana estarás usando líneas, colores y figuras para crear diferentes obras de arte.
Diseñando con Líneas: Usando un lápiz, recrea un dibujo de líneas come el que ves aquí. Usa toda la pagina. .



Dia 2 Arte

Diseñando Usando Color: Toma el mismo dibujo que dibujaste en el dia 1 y agregale color.

Dia 3 Arte

Diseñando Formas de Diseño
Utiliza esta obra de arte colorida hecha de formas como ejemplo para crear tu propia obra de arte. Asegurate de usar formas geométricas con líneas rectas y formas orgánicas con lineas en curva. Crea tu obra de arte usando un lápiz.



Dia 4 Arte

Diseñando con Color: Es tiempo de agregar color a tus dibujos del Dia 3. Usa crayones, marcadores, lápices de color o una combinación de colores para colorear tu dibujo.

Dia 5 Arte

Diseño: Ahora es tiempo de crear tu propia obra maestra utilizando los elementos del arte: líneas, formas, y color. Solo nos estamos enfocando en esto tres elementos. Tu dibujo puede ser no-objetivo (aspecto extraño y sin enfoque particular) u objetivo (se parece a algo o a alguien).



Day 6 Reading

The Nation at War pp. 12-13

Read aloud the first two pages of the selection together, alternating paragraphs.
• After reading the firsthand accounts on page 13, **write a short poem** together, responding to these soldiers' experiences.

Day 6 Writing

Writing Prompt: Have you ever been put in a tough situation? What did you do to turn the situation into a positive?

Grammar/Spelling: Verb Tenses to Convey Sequence, States, and Conditions

Day 6 Math

Complete the following math pages:
-Decimal By Whole Number Multiplication
-Decimal Multiplication with Base-10 Blocks
-Base-10 Block Mat
-Independent Practice
-Math Practice

Día 6 Lectura

<u>The Nation at War</u> pp. 12-13

***Lean** juntos **en voz alta** las primeras dos páginas de la selección, alternando párrafos.*
*• Después de leer los relatos en la página 13, **escriban** juntos **un poema corto**, respondiendo a las experiencias de estos soldados.*

Día 6 Escritura

Mensaje de escritura: ¿Alguna vez te han puesto en una situación difícil? ¿Qué hiciste para convertir la situación en algo positivo?

Gramática/Ortografía: <u>Verb Tenses to Convey Sequence, States, and Conditions</u>

Día 6 Matemáticas

Complete las siguientes páginas de matemáticas:

-Decimal por multiplicación de números enteros
-Multiplicación decimal con bloques de base 10
-Base-10 Bloque Mat
-Práctica independiente
-Práctica de Matemáticas

Extended Read 1

Remember to annotate as you read.

Notes

The Nation at War

by Susan Buckley

1 As a brand-new nation, the United States was born in the victory of the American Revolution. Brave soldiers from the thirteen new states had to fight for freedom in order for them to form an independent country. Almost 80 years later Americans fought another long and bloody war to determine whether they would remain one nation or divide into two.

2 Over the nearly 250 years of its existence, the United States has faced war many times. Sometimes Americans have fought over who could claim what land. Sometimes the nation has joined others around the world to fight against dictatorship or terror. There have been many causes, but all involve sacrifice.



The Tomb of the Unknown Soldier at Arlington National Cemetery in Washington, D.C. honors all soldiers who have given their lives for this country.

Notes

Voices of War

3 One young soldier described the results of a Civil War battle in 1861:

4 *We had another great battle Sunday,... it was a sad and dreary day. I never had spent such a sabbath in my life before I have seen the horror of war. I had to stand sentinel [duty] at the hospital door [where] I could see all the wounded soldiers. I stood from Sunday 12 o'clock till Monday night— I had to be up all night to guard the wounded— it was the saddest thing I ever saw to hear the moans of the wounded and dying. I saw the surgeons operating on them, it made me shed tears to see how they suffered....*

5 Less than a century later, another young American soldier described his feelings in World War II:

6 *Take a combination of fear, anger, hunger, thirst, exhaustion, disgust, loneliness, homesickness, and wrap that all up in one reaction and you might approach the feelings a fellow has. It makes you feel mighty small, helpless, and alone... Without faith, I don't see how anyone could stand this.*

Wartime Statistics 1775–1991

U.S. Military Troops in Service: 41,892,128

Total Deaths: 1,190,110

Total Wounded: 1,431,290

Name _____ Date _____

Verb Tenses to Convey Sequence, States, and Conditions

Use the same verb tense to describe actions that happen at the same time.

Present: When the band **comes** on stage, the audience **shrieks**.

Past: When the band **came** on stage, the audience **shrieked**.

Change tenses to describe actions that happened at different times.

Past/Present: We **had left** by the time the band finally **showed up**.

Past/Future: I **have decided** that I **will not attend** their concerts ever again!

Write the form of the verb in ( ) that correctly completes the sentence.

1. I get stage fright every time I _____ in a play.

(will perform, perform)

2. I worked really hard and _____ my lines perfectly.

(memorize, memorized)

3. Carmen was painting scenery while Dan and I _____ our scenes.

(were rehearsing, are rehearsing)

4. By the time the play was over, I _____.

(have relaxed, had relaxed)

5. When the curtain came down, the audience stood up and _____.

(cheered, cheer)

6. I will sign up for drama club again because I _____ how much I enjoy it.

(realize, will realize)

7. Our teacher says that we _____ a musical next spring.

(had put on, will put on)

Day 6 Math

Decimal by Whole Number Multiplication

Composition notebooks are on sale for $0.29 each. How much will 9 notebooks cost?

Estimate	Solution

Four members of a cross-country relay team each run 3.4 km to complete their part of a race. How long is the race?

Estimate	Solution

Day 6 Math

Decimal Multiplication with Base-10 Blocks

For each problem, make an estimate of the answer, then solve with your base-10 block mat on the next page and record your work. Look for patterns.

1) 4 × $1.20

Estimate	Record of work

2) 3 × $1.25

Estimate	Record of work

3) 10 × 0.92

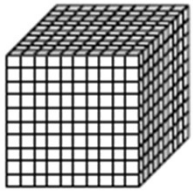
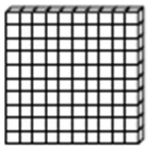
Estimate	Record of work

4) 3 × 2.50

Estimate	Record of work

Day 6 Math

Base-10 Block Mat

Tens	Ones	Tenths	Hundredths
 ($10.00)	 ($1.00)	 (10 ¢ = $0.10)	 (1 ¢ = $0.01)

Day 6 Math

Independent Practice

Multiply. Check for reasonableness.

3. 2.49
× 3

4. 1.59
× 7

5. 3.4
× 7

6. 2 × 1.3 = _____

7. 3 × 0.5 = _____

8. 1.8 × 9 = _____

9. 0.48
× 3

10. 2.4
× 8

11. 0.02
× 4

12. 0.66 × 5 = _____

13. 67 × 4.3 = _____

14. 52 × 2.1 = _____

Day 6- Math

Draw a picture.

Solve and show work.

$3.50 - $1.50

Use any strategy.

Write a story.

Day 7 Reading

The Nation at War pp. 14-15

Read aloud the next two pages of the selection together.

• Search your local library or online to find a map of the battles of the American Revolution.

• Learn more about battles near where you live or in places where you might like to visit

Day 7 Writing

Writing Prompt: Write about a time when you did something you were afraid to try. How did you feel afterward?

Grammar/Spelling: Correlative Conjunctions

Day 7 Math

Complete the following math pages:

-Decimal by Whole Number Multiplication
-Multiply Decimal by Single Digit Whole Number
-Independent Practice
-Math Practice

Día 7 Lectura

<u>The Nation at War</u> pp. 14-15

***Lean** juntos **en voz alta** las próximas dos páginas de la selección.*

- *Busque en su librería local o en línea un mapa de las batallas de la Revolución Americana.*
- *Aprenda más sobre las batallas cerca de donde vive o en lugares donde le gustaría visitar.*

Día 7 Escritura

Mensaje de escritura: Escribe sobre un momento cuando hiciste algo que tenías miedo de intentar. ¿Cómo te sentiste después?

Gramática/Ortografía: <u>Correlative Conjunctions</u>

Día 7 Matemáticas

Complete las siguientes páginas de matemáticas:

-Decimal por la multiplicación de números enteros
-Multiply Decimal por número entero de un solo dígito
-Práctica independiente
-Práctica de Matemáticas

Notes

Fighting for Independence: The American Revolution

7 "We have it in our power, to begin the world over again . . . the birthday of a new world is at hand," wrote Thomas Paine. Paine's pamphlet *Common Sense* was published in 1776. In it he argued that independence from Britain was the only sensible route for Americans to take. It took a war to gain that independence, however.

8 The fighting lasted for six years. The Americans were greatly outnumbered: About 2.5 million people lived in the thirteen colonies, while there were about 7.5 million inhabitants of Great Britain. But the Americans were fighting on their home territory. The British, on the other hand, had to send soldiers 3,000 miles across the Atlantic.



9 Most of the major battles took place in the northeast. In the last years of the war, however, American and British forces met in Georgia, South Carolina, North Carolina, and, finally, in Virginia.

10 At first, most soldiers fought with local or state militias. Militias are groups of "regular" citizens who join together for a short time. Many served in militias for only six months and then returned home. At the same time, though, General George Washington created a real army, the Continental Army. It was made up of soldiers from all thirteen colonies. To join the army, you had to be at least sixteen years old (or fifteen with your parents' consent). Altogether, historians estimate, between 200,000 and 250,000 soldiers fought on the American side.



According to legend, a woman called Molly Pitcher took her wounded husband's place in battle. She earned her name from bringing pitchers of water to soldiers on the battlefield.

11 Others helped the new states gain their independence, too. Women like Abigail Adams used their influence to support the Patriot cause. Some women, such as Deborah Sampson and Molly Pitcher, found ways to fight on the battlefield. African Americans fought with the Americans as well.

12 A revolution is a major change, and America's war for independence was indeed a *revolutionary* war. When it was over, what had been thirteen colonies became what would be a great nation.



Historians believe more than 5,000 African Americans enlisted to fight on the American side.

Name _____ Date _____

Correlative Conjunctions

Correlative conjunctions are pairs of conjunctions that work together to connect the parts of a sentence. **Either...or** and **neither...nor** are correlative conjunctions. **Either...or** means "one or the other." **Neither...nor** means "not one and not the other." **Either...or** gives options that are acceptable. **Neither...nor** gives no options that are acceptable.

I can wear **either** shorts **or** jeans to play soccer.

I can wear **neither** shorts **nor** jeans to my cousin's wedding.

Write two answers to the questions. Make your first answer positive: use *either...or.* Make your second answer negative: use *neither...nor*.

1. Do you want pizza? Do you want spaghetti?

_____

_____

2. Should we go to the movies or to the mall?

_____

_____

Rewrite each pair of sentences using the correlative conjunctions *either...or* or *neither...nor*.

3. A prairie dog is not a dog. It is not a gopher.

_____

4. They do not bark. They do not howl.

_____

5. Prairie dogs whistle. They yip.

_____

6. Prairie dogs dig burrows. Prairie dogs move into existing burrows.

_____

Day 7 Math

Decimal by Whole Number Multiplication

Lisa buys 6 packets of potato chips for a birthday party. If one packet of chips costs $2.68, how much money does Lisa spend?

Estimate	Solution

Sarah can run a lap around the track in 3.6 minutes. How long will it take her to run 4 laps?

Estimate	Solution

Day 7 Math

Multiply decimal by single digit whole numbers using the area model

Draw a model similar to the one pictured below for Parts (b), (c), and (d). Find the sum of the partial products to evaluate each expression.

a) 7 × 3.12

	3 ones +	**1 tenth** +	**2 hundredths**
7	7 x 3 ones	7 x 1 tenth	7 x 2 hundredths

21 + 0 .7 + 0.14 = 21.84

b) 6 x 4.25

_____ + _____ + _____ = _____

c) 3 × 9.63

_____	_____	_____
3 x _____ ones	3 x _____tenths	3 x _____hundredths

_____ + _____ + _____ = _____

d) 4 × 6.79

_____ + _____ + _____ = _____

Day 7 Math

Independent Practice

Multiply. Check for reasonableness.

4. 0.96×7.1

5. 3.65×2.6

6. 0.07×5.2

7. 2.78×0.8

8. 0.35×0.15

9. 3.24×6.4

10. $0.9 \times 0.3 =$ _____

11. $1.6 \times 3.2 =$ _____

12. $0.5 \times 6.7 =$ _____

Algebra **Find each unknown.**

13. $0.81 \times 7.3 = b$

$b =$ _____

14. $5.6 \times 3.9 = p$

$p =$ _____

15. $1.2 \times 0.05 = g$

$g =$ _____

Day 7 Math

Draw a picture.

Solve and show work.

2.5 - 1.6

Use any strategy.

Write a story.

Day 8 Reading

The Nation at War pp. 16-17

Read aloud the next two pages of the selection together.
- Do a dramatic reading of the Gettysburg Address.
- **Ask:** What was Lincoln saying in this historic speech?

Day 8 Writing

Writing Prompt: What makes you feel like a strong person?

Grammar/Spelling: Prefixes: re-, pre-, dis-, mis-

Day 8 Math

Complete the following math pages:
-Task Clay Boxes
-Complete the Equation
-My Homework
-Math Practice

Día 8 Lectura

<u>The Nation at War</u> pp. 16-17

***Lean** juntos **en voz alta** las próximas dos páginas de la selección.*
- *Hagan una lectura dramática del Discurso de Gettysburg.*
- ***Pregunte:** ¿Que estaba diciendo Lincoln en este discurso histórico?*

Día 8 Escritura

Mensaje de escritura: ¿Qué te hace sentir como una persona fuerte?

Gramática/Ortografía: <u>Prefixes: re-, pre-, dis-, mis-</u>

Día 8 Matemáticas

Complete las siguientes páginas de matemáticas:

-Cajas de arcilla de tareas
-Completa la ecuación
-Mi tarea
-Práctica de Matemáticas

Notes

One Nation Indivisible?: The Civil War

13 In the bloodiest war of our history, the United States fought to keep its unity as a nation. Would the nation that had come to life in the American Revolution endure? Or would core disagreements lead to its division?

14 Like the two sides of the American Revolution, the two sides in the Civil War held conflicting beliefs. Issues of slavery and states' rights were at the core of the dispute. Northern states opposed slavery. Southern states believed they had a right to continue slavery. The federal government believed it had the right to impose taxes and pass laws that applied to all states. Many in the South resented national control. After Abraham Lincoln was elected president of the United States, eleven Southern states left the Union and declared themselves a separate nation. They called it the Confederate States of America, or the Confederacy. The government of the United States went to war to keep the nation together —and to rid it of slavery.

15 As the Civil War raged on, President Lincoln spoke of both the Revolution and the Civil War in his Gettysburg Address:

16 *Four score and seven years ago our fathers brought forth on this continent, a new nation, conceived in Liberty, and dedicated to the proposition that all men are created equal.*

17 *Now we are engaged in a great civil war, testing whether that nation or any nation so conceived and so dedicated, can long endure....*

18 As many as 600,000 Americans —Northern and Southern —died in the Civil War. This was about 2 percent of the total population, an enormous casualty rate. Together with the wounded, the casualties totaled over 1 million.

19 The war was an ordeal for both sides. This text appeared in a Southern schoolbook in the last years of the war.

20 *This sad war is a bad thing.*
My pa-pa went, and died in the army.
My big brother went too and got shot....
My aunt had three sons, and all have died in the army.
Now she and the girls have to work for bread....
I hope we will have peace by the time [I] am old enough to go to war.
If I were a man, and had to make laws, I would not have any war, if I could help it.

21 The Civil War lasted for four years, but the repercussions from the war are still felt today.

Notes







Mathew Brady documented the Civil War with over 10,000 photographs taken by him and his band of assistants. Brady's efforts marked the birth of photojournalism. The harsh realities of war had never before been made visible in the same way as in Brady's photographs.



Name _____ Date _____

Prefixes: re-, pre-, dis-, mis-

prepare	recollect	disappoint	reunited
disgusted	misguided	reaction	recall

Complete each sentence with a spelling word.

1. She is my favorite author, so I know her next book won't _____ me.

2. Do you remember, or _____, the day we met for the first time?

3. Lucy was _____ by the smell of the garbage.

4. The twins were _____ after a semester at different colleges.

5. Diego had to _____ for the math test because he knew it would be hard.

Write the spelling word that matches the given synonym and antonym.

Synonym	Antonym	Spelling Word
get ready	put off	
came together again	separated	
sickened	pleased	
remember	forget	
misled	disclosed	

Day 8 Math

Task Clay Boxes

Part 1:
Mrs. Potter bought 6 boxes of clay for an art project. If each box of clay weighs 17.4 ounces, how many ounces of clay did the teacher buy? Explain your answer using pictures, numbers, and/or words.

Part 2:
If the clay is shared equally among the 18 students in the class, how many ounces of clay will each student get? Explain your answer using pictures, numbers, and/or words.

Day 8 Math

Complete the equation.

1. 1.6 ÷ 4 =_____

2. 0.32 ÷ 8=_____

3. .084÷ 7 =_____

4. 2.0 ÷ 5 =_____

5. 4.2÷ 7=_____

Day 8 Math

Name _____

Number and Operations in Base Ten
5.NBT.7

CCSS

MY Homework

Lesson 11

Divide Decimals by Whole Numbers

Homework Helper

eHelp

Need help? connectED.mcgraw-hill.com

Find 15.3 ÷ 3.

Estimate 15 ÷ 3 = 5

1 Place the decimal point directly above the decimal point in the dividend.

2 Divide as with whole numbers.

$$\begin{array}{r} 5.1 \\ 3\overline{)15.3} \\ -15 \\ \hline 03 \\ -\ 3 \\ \hline 0 \end{array}$$

So, 15.3 ÷ 3 = 5.1.

Check Use multiplication to check your answer. 5.1 × 3 = 15.3

Practice

Divide. Check your answer using multiplication.

1. 223.6 ÷ 40 = _____ **2.** 8.14 ÷ 20 = _____ **3.** 361.5 ÷ 12 = _____

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Day 8 Math

Draw a picture.

Solve and show work.

18.3 + 31.7

Use any strategy.

Write a story.

Day 9 Reading

The Nation at War pp. 18-19

Finish reading aloud the selection together.
• Use a print or online newspaper to learn more about current wars around the globe.

Day 9 Writing

Writing Prompt: What do you do when you see a classmate struggling with something?

Grammar/Spelling: Prefixes: re-, pre-, dis-, mis-

Day 9 Math

Complete the following math pages:
-Task
-Find the Quotient
-Example 2
-Independent Practice
-Math Practice

Día 9 Lectura

<u>The Nation at War</u> pp. 18-19

Terminen de leer juntos en voz alta la selección.
• Use un periódico impreso o en línea para aprender más sobre guerras actuales alrededor del mundo.

Día 9 Escritura

Mensaje de escritura: ¿Qué haces cuando ves a un compañero de clase teniendo dificultades con algo?

Gramática/Ortografía: <u>Prefijos: re, pre, dis-, mis-</u>

Día 9 Matemáticas

Completa las siguientes páginas de matemáticas.

-Tarea
- -Encuentra los cocientes
- -Ejemplo 2
- -Practica independiente
- -Práctica de Matemáticas

Notes

At War in Other Lands

22 Battles between Native Americans and the U.S. government or American settlers went on from colonial times until 1890. The last war fought entirely in U.S. territory was the Civil War. However, from the twentieth century to the present time, the nation has been involved in wars around the world.

23 The United States has brought its power to end colonialism in the Spanish-American War (1898–1902). The nation has joined allies defending freedom in World War I (U.S. involvement 1917–1918) and World War II (U.S. involvement 1941–1945). The United States fought Communist forces in the Korean War (1950–1953) and the Vietnam War (1964–1975). And since Desert Storm (1990–1991) and the Global War on Terror (beginning in 2001), brave American soldiers are fighting for freedom around the world.


F-4 Phantoms in formation


artist's depiction of Revolutionary War


modern-day soldiers

Notes


During World War II, the first women trained to fly American military aircraft were known as WASPs, Women Airforce Service Pilots.

Name _____ Date _____

Prefixes: re-, pre-, dis-, mis-

prepare	recollect	disappoint	reunited
disgusted	misguided	reaction	recall

Write the spelling word that begins with the given prefix.

1. re-_____ **2.** re-_____

3. re-_____ **4.** re-_____

5. pre-_____ **6.** mis-_____

7. dis-_____ **8.** dis-_____

Circle the incorrect word in each sentence. Then write the spelling word that makes the sentence correct.

9. He will compare repair dinner and serve it at seven. _____

10. I hate to reappoint you, but we cannot come to the party. _____

11. She had an allergic reflection to the bee sting. _____

12. I cannot retell who starred in the movie's leading role. _____

13. The friends were reinvited after spending the summer apart. _____

Day 9 Math

Task

Jessa has 23 one-dollar bills that she wants to divide equally between her 5 children.

How much money will each receive? How much money will Jessa have left over?

Jessa exchanged the remaining one-dollar bills for dimes. If she divides the money equally between her 5 children, how much money will each child get?

Day 9 Math

Find the quotients. Use any strategy.

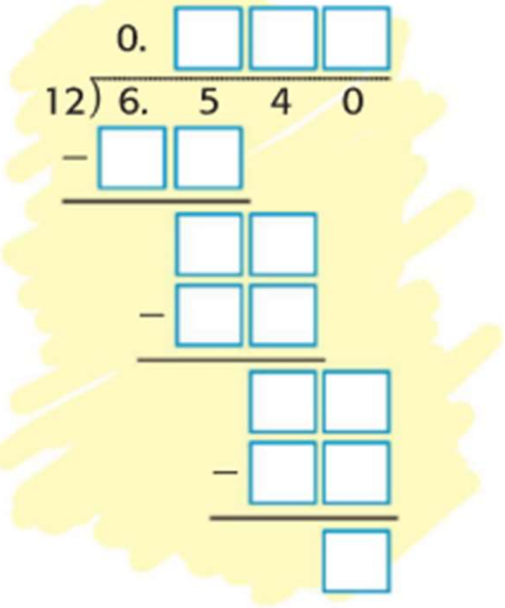
3.2 ÷ 8 =	8.1 ÷ 9
2.0 ÷ 5	4.2 ÷ 7

Day 9 Math

Example 2

Find \$6.54 ÷ 12. Round to the nearest cent.

1. Place the decimal point directly above the decimal point the dividend.
2. Divide as with a whole numbers.
3. Annex a zero after 6.54 and continue dividing.



So, \$6.54 ÷ 12 = \$_____. Rounded to the nearest cent, this is \$0.55.

Check Use multiplication.

$$\begin{array}{r} 0.545 \\ \times \quad 12 \\ \hline 1090 \\ +\,5450 \\ \hline 6.540 \end{array}$$

Talk MATH

Is the quotient of 9.3 ÷ 15 greater than one or less than one? Explain without calculating.

Guided Practice

Divide.

1. $3\overline{)48.33}$

2. $2\overline{)8.8}$



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Day 9 Math

Independent Practice

Divide. Check your answer using multiplication.

3. 145.8 ÷ 12 = _____

4. 22.11 ÷ 11 = _____

5. 38.4 ÷ 16 = _____

6. $8\overline{)12.4}$

7. $14\overline{)14.14}$

8. $11\overline{)55.44}$

Divide. Round to the nearest tenth.

9. 7.21 ÷ 7 = _____

10. 6.28 ÷ 4 = _____

11. $5\overline{)276.2}$

Divide. Round to the nearest hundredth.

12. 78.04 ÷ 8 = _____

13. $24\overline{)75.48}$

14. $25\overline{)4.60}$

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Day 9- Math

Draw a picture.

Solve and show work.

23.9 + 140

Use any strategy.

Write a story.

Day 10 Reading

<u>Two Letters from Boston, Massachusetts — 1775</u> p. 20

Have you and your child each **read aloud** a letter from the selection.
- Then **discuss** the types of hardships that are endured during war.

Day 10 Writing

Writing Prompt: How do you know when you've succeeded at something?

Day 10 Math

Complete the following math pages:
-Task
-Standard Algorithm
-Example 2
-Math Practice

Día 10 Lectura

<u>Two Letters from Boston, Massachusetts— 1775</u> p. 20

*Haga que usted y su hijo/a **lean en voz alta** una carta de la selección.*
- *Luego **hablen** de los tipos de dificultades que se sufren durante la guerra.*

Día 10 Escritura

Mensaje de escritura: ¿Cómo sabes cuándo has tenido éxito en algo?

Día 10 Matemáticas

Completa las siguientes páginas de matemáticas.

-Tarea
-Algoritmo Estandar
-Ejemplo 2
-Práctica de Matemáticas

Word Study Read

Remember to annotate as you read.

Notes

Two Letters from Boston, Massachusetts— 1775

My Dear Sister, June 10, 1775

1 You asked me to write when I finally reached Boston, and so I will not dissatisfy you. I have settled in at the army camp, and for the most part I am faring well.

2 One thing that troubles me, however, is the threat of camp fever. This deadly fever is brought on by a lack of cleanliness. Although I wash my clothes and take care to remain clean, many other soldiers do not. I fear that these misguided soldiers will spread the disease, and so I take every precaution.

3 I must close now, dear sister, as it is time for military drills. Please give my love to Mother and tell her I look forward to being reunited as a family again.

Your brother, Robert

****

Dearest Mary, July 30, 1775

4 We field officers have recently received a directive from General Washington. The General has instructed that we place ornamental ribbons on our hats, much like badges. My reaction to Washington's directive is positive. Until now, it has been difficult to distinguish field officers from regular soldiers. This is an improvement.

5 And what of the regular soldiers? Sadly they are still poorly clothed. One soldier may wear a heavy coat and a straw hat, while another dresses in moccasins and tattered britches. Yet despite this, we are united in spirit as we get ready to fight. Make no mistake, our goal is independence!

6 I will say goodnight now, Mary. I think of you and little Sarah each day and recollect our happy times together. Stay well, my dear wife.

Your husband, John

Day 10 Math

Task

A website has games available to purchase for $5 each. If Lita has $23, how many games can she purchase? Explain.

A jug holds 5 gallons of water. How many jugs can Mark fill with 23 gallons of water? Explain.

A class of 23 children will take a field trip. Each car can take 5 children. How many cars are needed to take all the children on the field trip? Explain.

Write a division problem for 31 ÷ 4 where the answer is a mixed number. Show how to solve your problem.

Day 10 Math

Solve using the standard algorithm.

a. 0.78 ÷ 3 = _____

b. 7.28 ÷ 4 = _____

c. 17.45 ÷ 5 = _____

d. 4.236 ÷ 3 = _____

e. 1.324 ÷ 2 = _____

Day 10 Math

Example 2

Find 0.06 ÷ 1.5.

1 Multiply each number by 10.

$$1.5\overline{)0.06}$$

2 Place the decimal point in the quotient. Divide as with whole numbers. Annex zeros in the dividend as needed.

$$\begin{array}{r} \square.\square\square \\ 15\overline{)\,0.60} \\ \underline{0} \\ 60 \\ \underline{-\square\square} \\ \square \end{array}$$

15 does not go into 6, so write a 0 in the hundredths place.

Check Multiply to check your answer.

$$\begin{array}{r} 0.04 \\ \times\ 1.5 \\ \hline 0.06 \end{array}$$

Talk MATH

When finding 0.808 ÷ 0.4, by what number should you multiply the divisor? Explain.

Guided Practice

1. Divide. Check your answer using multiplication.

6.89 ÷ 1.3 = _____

$$\begin{array}{r} \square.\square \\ 1.3\overline{)\,6.89} \\ \underline{-\square\square} \\ \square 9 \\ \underline{-\square\square} \\ \square \end{array}$$



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Day 10 Math

Draw a picture.

Solve and show work.

3.7 x 1.2

Use any strategy.

Write a story.

Day 6 Art

Shapes
What are shapes?
What are colors?
What are patterns?

Day 7 Art

Henri Matisse, French artist
Used vivid colors
Late in life he did cut-outs

Day 8 Art

Create your own rough draft of the Matisse inspired art project.

Day 9 Art

Create your shapes and see how you would insert them into the vase project.

Day 10 Art

Paste shapes into the VASE template, just like Matisse.
Do reflection page.

Día 6 Arte

Figuras
Qué son figuras?
Qué son colores?
Qué son los patrones?

Día 7 Arte

Henri Matisse, French artista
Usar colores vivos
Al final de sus vida hizo recortes

Día 8 Arte

Crea tu propio borrador del proyecto de arte inspirado en Matisse

Día 9 Arte

Crea sus formas y mira como las insertaría en el proyecto del florero.

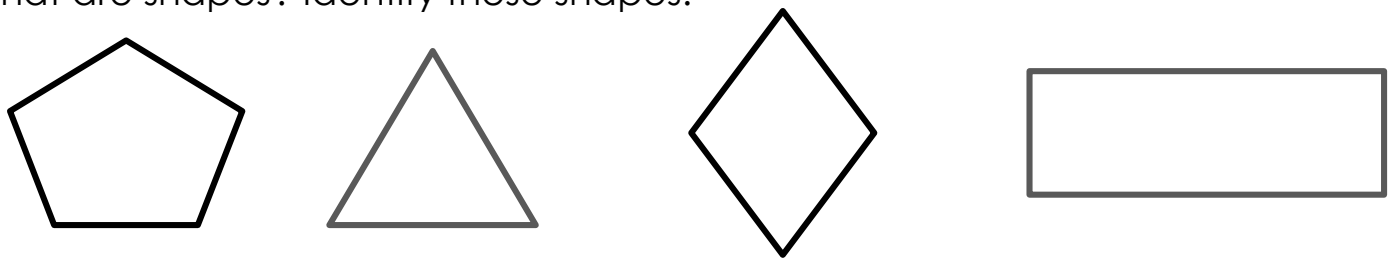
Día 10 Arte

Pega las formas en la vase de plantilla al igual que Matisse.
Haz una página de reflexión.

INTRODUCTION-SHAPES

Shapes

What are shapes? Identify these shapes.



What is in your home that looks like these shapes? (point out 7 objects)

What are colors? Color is reflected light.

Find objects in your home or outside that are RED, BLUE, YELLOW, ORANGE, PURPLE

What are patterns? A pattern is a repeated design on paper or fabric.

Find objects in your home that have a pattern.



Draw 3 different shapes with three different patterns inside each shape. The patterns could be flowers, stars, etc…..

Artist Background and Works



This is Henri Matisse. What do you notice?
What do you wonder?

He was from France and liked to paint with very bright colors. He truly enjoyed the act of painting. His purpose for doing art was for others to be happy when they saw his compositions. Late in life, when he became ill, he began to do paper cut-outs and made some of his most famous pieces during this time.
He was passionate about his painting.



Copy the pattern that you see here in this Cut-out composition.

What shapes do you see in this painting?

List the shapes that you see.



_____

_____

_____

_____

_____

Day 2

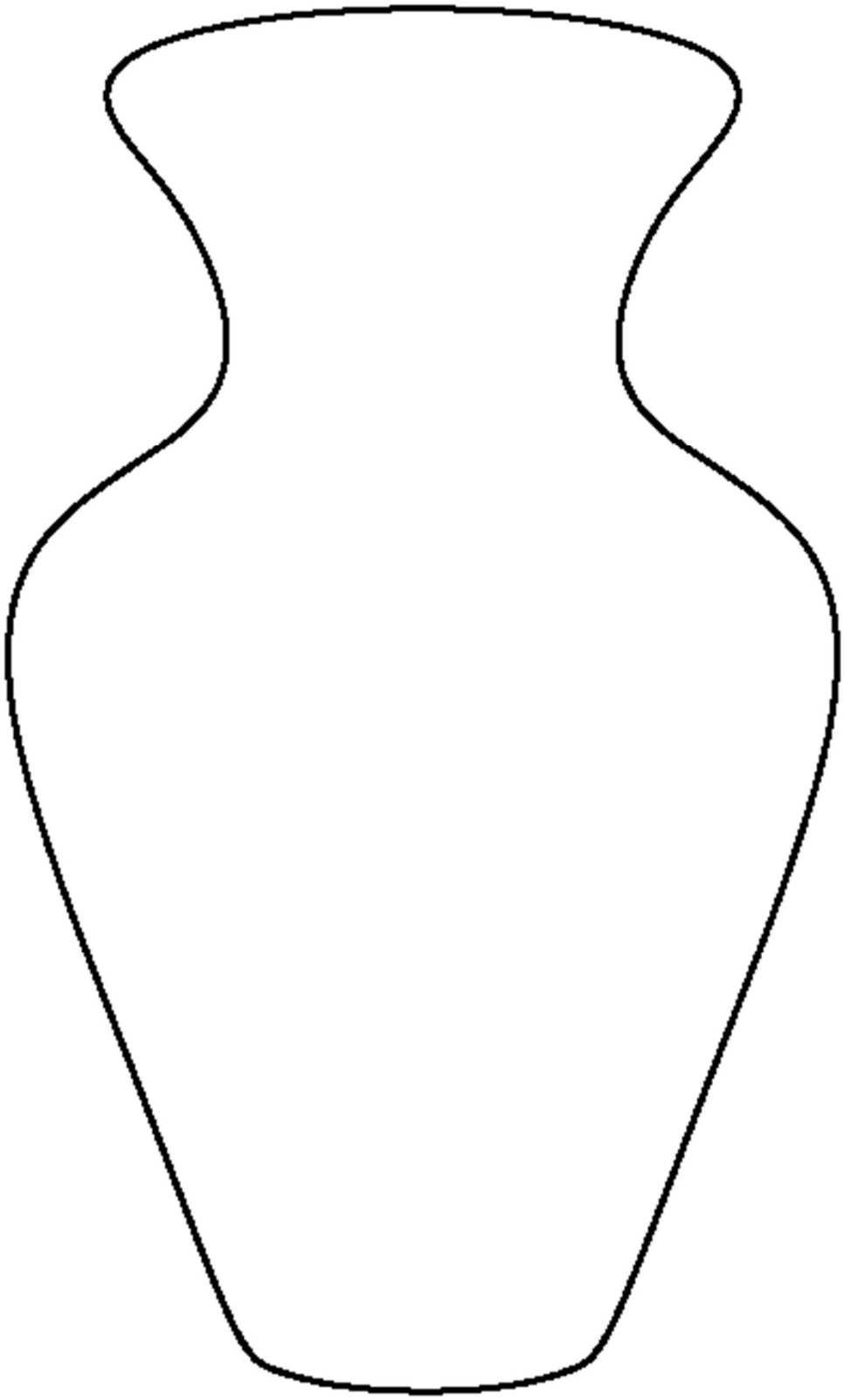
Rough Draft

Draw a few creative shapes that are not the regular square, triangle and hexagon. Fill in with a pattern. Look at Matisse's work for inspiration.

Vase template

Name: _____

Fill in the vase with 4 different shapes and 2 different patterns. For 6th grade use 5 different shapes and 3 different patterns. Use color if you can.



Page Intentionally Left Blank

3-2-1 ⟶ ART!



Name:

Name of Project:



Three things I learned...

Two things I like about my work...



One thing I would change or do differently...



Armpit Cheese, Anyone?

Article

LONDON, England (Achieve3000, May 28, 2019). What *aren't* cheesemakers doing to cheese these days? As you might've read in another Achieve3000 article ("Hip-Hop Cheese"), a German cheese lover exposed several identical cheese wheels to different genres of music. The result was an assortment of distinctly flavored cheeses. (Hip-hop cheese was the tangiest.)



Photo credit: Open Cell

Biodesigner Helene Steiner of Open Cell swabs the armpit of British musician Alex James for some of his celebrity bacteria. James' microbes were used to make Cheshire cheese.

Well, hang on to your crackers, because you're not going to believe what the Victoria and Albert (V&A) Museum in London is exhibiting through October 2019: cheese made with bacteria gathered from human body parts.

Take a sidestep, hip-hop, because armpit is the new big cheese in town.

Not quite your thing, you say? How about a wedge of belly button cheddar—lint-free, of course? Or perhaps a slice of nostril mozzarella? Or dare we suggest it, some pungent toe stilton? (Don't worry. It's toe *stilton,* not to be confused with toe *cheese*, which is what you get when you don't wash your feet for a week.)

If all of this is getting a little too gross for you, you might want to approach it a bit more scientifically.

The unusual cheese display at the V&A is part of an exhibition titled "FOOD: Bigger than the Plate." Spectators are invited to discover, taste, and debate the latest experiments currently being conducted at every stage of the food system—from fertilization to the dinner table. And armpit cheese certainly qualifies as food experimentation!

The makers of the body-bacteria cheese are a group of foodies and scientists based out of Open Cell, a research center for biotechnology in West London. The group calls the project "Selfmade." Indeed, the cheese is made by and from human selves, and the point the group hopes to impart is that bacteria are not all yucky.

Well, maybe bad bacteria are, the kind that get you really, really sick. But scientists estimate that less than 1 percent of bacteria are actually harmful to humans. Good bacteria, on the other hand, are vital to human digestion and immunity to diseases. Microbes are also part of our daily diet. Bacteria are on our hands as we prepare and eat our meals, and we use bacteria to make some of our favorite foods, like bread, chocolate, and yes, cheese.

The idea behind the exhibit is not for people with weak stomachs. According to the Selfmade team, the microbes involved in cheesemaking are closely related to those found on our bodies. That's why many cheeses smell just like certain human body odors. Limburger, for example—one of the stinkiest cheeses around—is surface-ripened by Brevibacterium linens. This type of bacteria is also found on human skin and causes smelly feet. (So there *is* a connection between toe cheese and toe-bacteria cheese!)

To get the cheeseball rolling, the Selfmade team assembled five British celebrities. (Bacteria of the rich and famous are *ever* so much more appealing than bacteria of mere mortals.) The high-profile microbes came from Alex James, the bass player for the rock band Blur; Heston Blumenthal, a celebrity chef and restaurateur; rap artist Professor Green; Madness singer-songwriter Suggs; and baker and writer Ruby Tandoh.

The Selfmade team swabbed the surface of the celebrities' skin, gathering bacteria samples from their armpits, nostrils, belly buttons, and toes. Using synthetic biology, the team then grew starter cultures. These are microorganisms that are needed to make dairy products like yogurt and cheese. The starter cultures were then combined with fresh, pasteurized

milk. At the end of the process, a set of "microbial portraits" of humans emerged in Cheshire, mozzarella, cheddar, Comté, and stilton cheese.

But is any of it edible? Maybe yes, maybe no. That determination thankfully will be made in a laboratory, *not* someone's mouth. But don't be surprised if one day you see a package of Ed Sheeran double-injected Monterey Jack on supermarket shelves. Not only is it made with his bacteria, but it's been *flavored* with his music as well.

Video Credit: Open Cell Media, opencell.bio

What Do You Think?

Can you assess the value or importance of the cheese created by the Self-made team?

Why do you think people might want to try the cheese created by the Self-made team?

Despicable Disposables

Article



Photo credit: maaram/iStock/Getty Images Plus

Paper-based biodegradable containers like this seem good for the environment. But are they really?

LAKEWOOD, New Jersey (Achieve3000, June 24, 2019). We humans produce a boatload of plastic and cardboard waste each year. It's a lot more than you might think. Even if we avoid the use of some single-use products, wisely declining drinking straws and grocery bags, the stubborn fact remains that everything from the food we eat (mac-n-cheese cup, anyone?) to school supplies to that killer pair of new kicks comes wrapped in a heap of disposable packaging.

Lots of people—maybe even you—have been taking note. And many are trying hard to cut back on single-use materials and plastics. They might stick with reusables and recyclables instead, like paper straws and fabric tote bags, as well as a variety of biodegradable substitutes.

But what if one biodegradable substitute comes with its own prickly problem?

Recently, many companies in the food industry have tried to replace plastic takeout containers with paper-based compostable ones. It's not a bad idea. Across the world, humankind produces over 300 million tons (272 million metric tons) of plastic waste *annually*. Unfortunately, much of this plastic ends up in the ocean. What's more, environmentalists have been pointing out that we, as a species, simply have to kick this bad habit in order to save the climate. Yes, you heard that correctly. The carbon emissions from the production of plastics contributes to climate change!

But plastic isn't the only concern. Other packaging materials like cardboard and Styrofoam are also single-use. And they're often unrecyclable to boot.

So the idea of biodegradable to-go boxes that simply decompose and enrich the earth once we've eaten our lunch sounds like a step in the right direction. We could throw out as many containers as we need and not worry about pollution. More cheese fries for everyone!

Or maybe not. As it turns out, these new "eco-friendly" boxes could actually be bad for our health—and the environment.

A team of researchers at Purdue University recently studied various compost samples. They found evidence that the compost, or remains, from the new to-go boxes had significant levels of per- and polyfluoroalkyl substances. Per- and poly-*what*? Known as PFAS, these man-made chemicals repel grease, water, and stains. That's why they're used in consumer products like carpeting, waterproof clothing, non-stick cookware, and yes, food packaging.

So PFAS are pretty useful. The major problem with many of them, however, is that they never fully break down. And there's evidence that exposure to PFAS can lead to harmful health effects in humans, such as increased cancer risk and changes to the immune system.

In examining the compost left behind by the containers, the scientists discovered much higher levels of PFAS than is considered safe. And worse, the toxic chemicals were leaching into the ground, meaning they could enter the water, soil, and ultimately, the food chain. So much for *helping* the environment.

Is this just another reason to avoid takeout food? Not exactly. Biodegradable containers without PFAS do exist. And once the results of the study were released, many grocery retailers made the switch to safer packaging. Health advocates have called for commercial composting facilities in the U.S. to ban all PFAS-treated materials. They also want state and local governments to ensure safer alternatives are used in food packaging.

Washington state and San Francisco, California, have responded. Both recently banned PFAS in paper food packaging. New York has required its state agencies to give preference to PFAS-free food packaging. And several other states, including New Jersey, Minnesota, and Michigan, have set drinking water standards to protect residents from PFAS in their water.

So maybe this was a setback in the quest to save the environment. But don't fret. Experts tell us to keep up the good work in avoiding single-use products, while also recycling and reusing material whenever we can.

Go Away, Troll?

Article

BRECKENRIDGE, Colorado (Achieve3000, November 29, 2018). "Get that troll out of here!" That was the cry of some residents of Breckenridge, Colorado, in the fall of 2018. The troll in question, named "Isak Heartstone," was a giant wooden piece of art that was a little too popular with visitors.



Photo credit: Hugh Carey/Summit Daily News via AP

The troll named "Isak Heartstone" is shown sitting in the snow in Breckenridge, Colorado, in November 2018, shortly before being dismantled.

The story of Isak Heartstone began in the summer of 2018, when the roughly 15-foot (4.6-meter) sculpture was created in Breckenridge by Danish artist Thomas Dambo. Dambo, who has made trolls and other giant sculptures around the world, made Isak Heartstone for a summer arts festival. Dambo likes to use recycled materials in his art. So he built the troll from scrap lumber and fallen trees during the approximately 10-day construction process. The result could be described as imaginative or odd, depending on your viewpoint. Either way, Isak Heartstone seemed to be a welcoming presence. With branches for hair and a body constructed of individual planks, he rested on the ground with his legs in front of him and a gentle smile on his face. When the weather turned cold, snow blanketed the troll and piled on top of his head, making him look like he was wearing a white cap. The plan was to keep Isak Heartstone in place for as long as he could withstand the weather, and provided he wasn't harmed.

The sculpture, which sat along a hiking trail, attracted many troll-seekers—and not everyone was happy about it. Before long, nearby homeowners began complaining about people parking all over and littering. In their view, Isak Heartstone had to go.

And so, on November 15, Breckenridge town employees began taking down the troll, using a chainsaw and a backhoe. He's gone from his original spot now, and most of the pieces of wood have been put into storage. But Isak may reappear. That is, if Breckenridge officials find him a new home.

It's possible they already have. Soon after Isak Heartstone was taken apart, Dambo wrote a message on Instagram. He said that town officials have agreed to let him rebuild the troll in a new location once the weather warms up. Town officials then admitted that they were in talks about where and when Isak Heartstone will be seen smiling, once again.

The Associated Press contributed to this story.

The Big Burger Fake-Out

Article

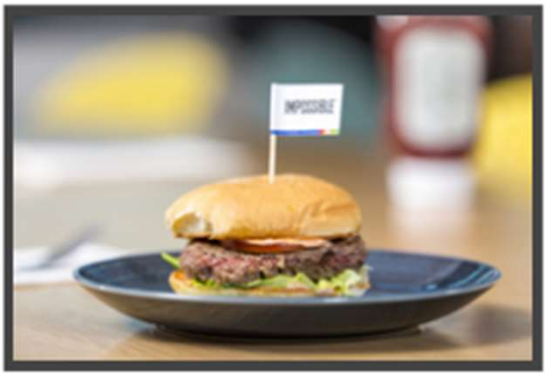


Photo credit: Impossible Foods

Don't look twice, but this juicy burger doesn't have a lick of beef in it. Looks can be deceiving! But what about taste?

ST. LOUIS, Missouri (Achieve3000, April 12, 2019). Sure, it sizzles like a beef patty and looks like a beef patty. And when you bite into it—according to some—it tastes like a beef patty, too. But the Impossible Whopper on the Burger King menu is a fake. It's nothing more than a flame-grilled, meatless imitation posing as the real deal. So what's going on here? Aren't Burger King burgers supposed to be "100% Beef With No Fillers"? Quick, speed-dial the burger police!

On second thought, hold that call.

Burger King officially introduced the veggie burger in April 2019 at 59 of its eateries in the St. Louis, Missouri, area. If it takes off there, it'll be available at all 7,200 Burger King branches across the U.S. And that will mean a whole lot of fake meat in the fast-food arena. For the record, though, the label on the Impossible Whopper reads "0% beef."

But don't think that Burger King is the first fast-food chain to throw its hat—crown?—into the meat-alternative ring. White Castle launched its Impossible Slider in April 2018. McDonald's followed soon after with its McVeggie Burger in December 2018. Carl's Jr. restaurants began serving their own veggie quarter-pounder in January 2019. And only hours after Burger King debuted the Impossible Whopper, Red Robin, another national restaurant chain, introduced its own Impossible Burger in all 570 of its eateries.

It's practically a veggie revolution.

All these meatless burgers, however, should surprise no one. Many people lucky enough to have a bountiful food supply have become increasingly health conscious about which foods they eat. They are also concerned about the effect those foods have on the environment. And many worldwide studies have shown that producing and consuming meat has all kinds of health and environmental concerns.

A meat-rich diet has been linked to increased risks of certain cancers, diabetes, and Alzheimer's disease. The high levels of cholesterol and saturated fat in meat contribute to America's number one killer—heart disease. Carnivores often find it harder to maintain a healthy body weight. And lastly, meat poses the highest risk of foodborne illnesses like *E. coli* and *salmonella*, and it may even make people resistant to some medicines.

Garden salad, anyone?

As for the environmental concerns, the heat-trapping greenhouse gases unleashed by raising animals for food rival those of every kind of transportation combined. Animal agriculture has been found to pollute and consume more water than any other industry. And the global demand for meat, along with fish and dairy foods, is a cause of the continuing meltdown in the world's wildlife populations and ecosystems.

Which brings us to Impossible Foods. That's the company that developed the meat substitute in the Impossible Burgers and Sliders offered by Burger King, White Castle, and Red Robin. *Time* magazine called Impossible Foods one of "50 Genius Companies of 2018." The California-based startup is dedicated to completely replacing animals in the global food system. It claims it will do this by creating tasty, nutritious, affordable, and sustainable meat, fish, and dairy products directly from plants.

So what exactly is the secret ingredient that's fooling just about everyone who's taste-tested an Impossible Burger?

Introducing leghemoglobin. That's a protein derived from soybeans that is chemically bound to a molecule called heme, which is abundant in meat. Heme attempts to give the Impossible Burger the same taste, smell, consistency, and texture of beef. It also gives the burger the blood-red appearance of beef.

In other words, it just might be the perfect con job.

Apart from appearances, Impossible Burgers have a fraction of the fat, carbohydrates, and cholesterol of regular beef burgers and plenty of iron and protein. They also claim to generate about 87% less greenhouse gas than a regular burger from cows, so it could be a win-win across the board.

But will the Impossible Whopper catch on? Only time will tell. But if it does, fake franks and bogus bacon can't be too far down the road.

Video Credit: Impossible Foods
Edited for length



What Do You Think?

How are Impossible Burgers and regular burgers alike? How are they different?

What would happen if people around the world started eating more meatless foods?