Dear 6th – 8th Grade Parents and Guardians:

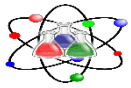
While your students are home, we ask that you continue to partner with us in ensuring ongoing learning. Below is a list of activities we recommend your students complete on a daily basis.

 Reading (20 minutes) - if you have access to online resources, your student can log into Clever to access district resources such as Pearson Realize, Compass Leaning, and Scholastic. Please encourage your student to choose stories or articles to read. If you have reading materials at home, feel free to use those as well. After students are done reading, have your students tell you what their article or story was about. Students may also complete hard copy Reading activities as well. Reading packet options are available here.

 **Writing (30 minutes)**- if you have access to online resources, please visit Scholastic Story Starters (6th grade only), Story Jumpers, or Story Board That for fun and creative story starters and writing prompts. Have students use these prompts and tools to create their very own story. Students can also write… a story, their feelings, their thoughts about what they are reading, a letter, an information piece about something on which they are an expert. Writing packet options are available here.

 **Math (30 minutes)** - if you have access to online resources, your student can log into Clever to access Mathia. A Math scavenger hunt is provided to encourage your student to find the math that is all around them. Visit IXL, Khan Academy, and Cool Math for practice and fun Math games. Math packet options are available here.

 **Social Studies (20 minutes)** - if you have online access, your student can log into Clever to access district resources. You will also find articles in both English and Spanish at Tweentribune. Have students to read and complete the quiz. Also visit Education.com, Newsela, and IXL for interactive Social Studies activities. Social Studies packet options are available here.

 **Science (20 minutes)** - if you have access to online access, your student can log into Clever to access district resources. Visit Energy Kids to learn more about energy as well as games and activities. Visit this Optics 4 Kids to learn about cool optical illusions and visit Ask a Biologist for virtual field trips and activities. Visit YouTube videos and National Geographic Kids to learn more about science. Science packet options are available here.

 **Exercise (60 minutes a day)** - regular exercise and movement is important to do every day. Movement helps you reduce stress, build strong bones and muscles, and helps you to be ready to learn! Try to get 60 minutes of physical activity every day. Visit GoNoodle for movement videos.

Estimados padres y tutores de 6º a 8º grado:

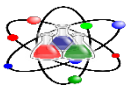
Mientras sus estudiantes estén en casa, le pedimos que continúe colaborando con nosotros para garantizar un aprendizaje continuo. A continuación, hay una lista de actividades que recomendamos que sus estudiantes completen diariamente.

 Lectura (20 minutos) - Si tiene acceso a recursos en línea, su estudiante puede iniciar sesión en Clever para acceder a recursos del distrito como Pearson Realize, Compass Learning y Scholastic. Por favor anime a su estudiante a elegir historias o artículos para leer. Si tiene materiales de lectura en casa, siéntase libre de usarlos también. Una vez que los alumnos hayan terminado de leer, pídales que le cuenten de qué se trata su artículo o historia. Los estudiantes también pueden completar actividades de lectura impresas. Las opciones de paquetes de lectura están disponibles aquí.

 **Escritura (30 minutos)**- Si tiene acceso a recursos en línea, visite Scholastic Story Starters (solo 6th grado), Story Jumpers, o Story Board That para iniciadores de historias divertidas y creativas y mensajes de escritura. Haga que los estudiantes usen estas indicaciones y herramientas para crear su propia historia. Los estudiantes también pueden escribir ... una historia, sus sentimientos, sus pensamientos sobre lo que están leyendo, una carta, una información sobre algo en lo que son expertos. Las opciones de paquetes de escritura están disponibles aquí.

 **Matematicas (30 minutos)** - Si tiene acceso a recursos en línea, su estudiante puede iniciar sesión n Clever para usar Mathia. Una busqueda de matematicas se puede encontrar en scavenger hunt para animar a su estudiante a encontrar las matemáticas que en todo su alrededor. Visite IXL, Khan Academy, y para practicar y divertir con juegos matemáticos. Las opciones de paquetes matemáticos están disponibles aquí.

 **Estuidos sociales (20 minutos)** - Si tienen acceso en linea, su estudiante puede inciar sesión en Clever para acceder los recursos. Encontraran articulos en ingles y espanol en Tweentribune. Los estudiantes pueden leer y contestar las preguntas aqui. Tambien visite Education.com, Newsela, y IXL para actividades interactivas. Las opciones de paquetes de estudios sociales están disponibles aquí.

 **Ciencias (20 minutos)** - Si tiene acceso a recursos en línea, su estudiante puede iniciar sesión en Clever para acceder los recursos. Visite Energy Kids para aprender más sobre energía, juegos y actividades. Visite Optics for Kids para aprender sobre ilusiones ópticas geniales y otras actividades. Visite Ask a Biologist para excursiones virtuales y actividades. Visite YouTube videos y National Geographic Kids para aprender más de ciencias. Las opciones de paquetes de ciencias están disponibles aqui.

 **Ejercicio (60 minutos diarios)** - es importante hacer ejercicio y movimiento regularmente todos los días. ¡El movimiento te ayuda a reducir el estrés, desarrollar huesos y músculos fuertes, y te ayuda a estar listo para aprender! Intente realizar 60 minutos de actividad física todos los días. Visite GoNoodle para videos de movimiento.

District 89 Online Learning Resources

Access these programs from Clever at https://www.clever.com/in/maywood89	
	Lexia Core 5 has literacy activities with tracked progress and customized lessons. K-5; App available
Raz-Kids	Raz-Kids has online leveled books from basic to advanced. Students can record themselves and take quizzes. K-5; English and Spanish; App available
Imagine Español	Imagine Español hass Spanish literacy activities with tracked progress and customized lessons. K-3; Spanish
Imagine Math	Imagine Math has math activities with tracked progress and customized lessons. K-5
Mc Graw Hill	Wonders/Maravillas includes literature, vocabulary, writing, and grammar activities K-5; English and Spanish; App available (separate sign-in required—email teacher if needed)
	World Book A world of learning at your fingertips. Explore important people, animals, maps, science, and activities. K-8; English and Spanish
Pathblazer	Edgenuity Pathblazer includes Math and Reading activities linked to standards. K-8; Limited School Access

If you need login assistance with login information, contact your teacher through email.

Additional Resource Links

Reading	
SCHOLASTIC	https://classroommagazines.scholastic.com/support/learnathome.html Choose books, videos, and activities by grade levels
THE Spanish EXPERIMENT	https://www.thespanishexperiment.com/stories Children's stories in Spanish
Storyline Online	https://www.storylineonline.net/ Actors and Actresses read books with illustrations
epic!	https://www.getepic.com/ 1000's of award winning books. English and Spanish Signup required, free 30 days
newsela	https://newsela.com/ English; https://newsela.com/rules/spanish Spanish News articles written for students with quizzes and writing prompts for 3-8; English and Spanish
TweenTribune	https://www.tweentribune.com/ Informational text at different grade levels

Online Magazines	
TIME FOR KIDS	Time for Kids http://www.timeforkids.com
SCHOLASTIC NEWS	Scholastic News http://magazines.scholastic.com English https://classroommagazines.scholastic.com/spanish.html Spanish
Highlights kids	Highlights Kids https://www.highlightskids.com/
SIKIDS	Sport Illustrated Kids http://www.sikids.com
NATIONAL GEOGRAPHIC KIDS	National Geographic Kids http://kids.nationalgeographic.com

Writing	
	http://www.scholastic.com/teachers/story-starters/index.html Story Starter ideas by grade level
	https://www.storyboardthat.com/ Digital story telling with backgrounds, characters, and text

Dual Language	
	https://l2trec.utah.edu/news/utahdliathome/spanish.php Spanish and Dual language activities and resources

Math	
	https://www.coolmath4kids.com/ K-5 Math games, lessons, brainteasers
	https://minds-in-bloom.com/math-scavenger-hun/ K-5 Math scavenger hunt ideas
	https://www.khanacademy.org/math K-8 Practice early math through grade 8
	https://www.ixl.com/ K-8 Practice early math through grade 8
	https://www.mathgames.com/math-games.html K-8 math games by grade and topic

Science and Social Studies	
	BrainPop Jr https://jr.brainpop.com BrainPOP Español https://esp.brainpop.com BrainPop https://www.brainpop.com/ BrainPopELL https://ell.brainpop.com Animated educational videos and activities on many school topics K-8; App available (Username: district89; Password: brainpop2)
	https://www.eia.gov/kids/ Information and games about energy
	https://www.optics4kids.org/illusions Optical illusions
	https://blockly.games/ Programming games for kids
	https://www.education.com/activity/social-studies/ Social Studies activities by grade level

Health	
	https://www.gonoodle.com/ Movement and mindfulness videos
	https://aha-nflplay60.discoveryeducation.com/families Fun activities, videos, and virtual field trips

Art/Music	
	http://www.maywoodfinearts.org/?page_id=3043 Take an online class with Maywood Fine Arts
	https://colormandala.com/ Color mandelas online

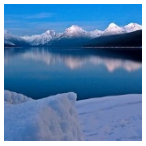
For Parents	
	http://www.parenttoolkit.com/ English; http://www.parenttoolkit.com/home?lang=es Spanish Age level guides for academic, health, social emotional topics and video parenting guides English and Spanish

Virtual Field Trips/Tours

Use Google Earth to explore our National Parks.

Badlands National Park
Death Valley National Park
Denali National Park
Everglades National Park
Glacier National Park
Grand Canyon National Park
Great Smoky Mountain National Park
Redwood National and State Parks
Rocky Mountain National Park
Yellowstone National Park





Lesson ideas:

Choose a National Park. Record your observations, then choose to create one of the following:

- Design a travel brochure
- Write a newspaper article to describe the location and encourage travel there
- Create a map that shows the location of the national park

Zoos and Web Cams - Observe various zoo animals through web cams.

Smithsonian's National Zoo
San Diego Zoo
Animal Planet Live
National Aquarium: Black Tip Reef Sharks, Jellies, and Pacific Coral Reef Live
Seattle Aquarium: YouTube virtual field trip and lesson
Seattle Aquarium Live Cams


Lesson ideas:

Visit and observe an animal of your choice. Complete one of the following:

- Observe the animal for one week. Record these observations and then write a journal about the animal and its habits.
- Create an informative poster about the animal.
- Describe the animal's habitat.

Planetarium - Explore over 60,000 stars, locate planets, and watch sunrises and solar eclipses. If you enter your location, and you can see all the constellations that are visible in the night sky in your corner of the world.

NASA Commercial Crew Virtual Tours - YouTube series containing virtual tours of training facilities. Learn how the astronauts train for space travel and life aboard the International Space Station.

Smithsonian Latino Center - Features life broadcasts of Latina writers and virtual exhibits around latino cultures. Includes a Latino Virtual Museum Bilingual Teacher Training Took Kit that is now available online and via iTunes U.

Tour various locations from around the world.

The Great Wall of China
Pompeii
Ellis Island - this site also includes some additional activities

Lesson ideas:

Write a journal entry from about a journey to this location.
Create a travel brochure.

Take a trip to Walt Disney World and go on a virtual ride of some of Disney's famous attractions.

Space Mountain
Splash Mountain
Test Track
Expedition Everest
Rock n Roller Coaster
Soarin'
Seven Dwarfs Mine Train
Rise of the Resistance
Mickey and Minnie's Runaway Railway
Slinky Dog Dash
Millenium Falcon/ Smuggler's Run

Student eLearning Activities Log Week 4

Student Name _____ Grade _____

Teacher _____

Please write the activities you completed each day.

	Monday	Tuesday	Wednesday	Thursday	Friday
Example:	Read/listened to a story Imagine Math Scholastic Science experiment Jumping Jacks Reading packet Math packet	Reading packet Math packet Raz-Kids Art Imagine Math	Imagine Math Writing Virtual Tour Read a book Jumped Rope/Burpees	Imagine Math Reading packet Math packet Social Studies YouTube exercise video	Imagine Math Reading packet Math packet Art project Science experiment Raz-Kids Lexia
Activities/ Assignments					

Parent Signature_____ Date_____

Registro de actividades de aprendizaje electrónico semana 4

Nombre _____ Grado _____

Maestro/a _____

Por favor escribe las actividades que completaste cada día.

	lunes	martes	miércoles	jueves	viernes
Ejemplo:	Leer un libor Imagine Math Scholastic Experimento de Ciencias Jumping Jacks Paquete de lectura Paquete de matemáticas	Paquete de lectura Paquete de matemáticas Raz-Kids Arte Imagine Math Lexía	Imagine Math Escritura Paseo Virtual Leer un libor Brincar la cuerda/sentadillas lexía	Imagine Math Paquete de lectura Paquete de matemáticas Estudios Social Video YouTube de ejercicio	Imagine Math Paquete de lectura Paquete de matemáticas Arte Experimento de Ciencia Raz-Kids Lexía
Actividades/ Tareas					

Firma de Padres_____ Fecha_____

HOW TO USE THIS BOOK

180 Days of Reading fo *ie* offers teachers and parents a full page of daily reading comprehension and word-study practice activities for each day of the school year.

Easy to Use and Standards Based

These activities reinforce grade-level skills across a variety of reading concepts. The questions are provided as a full practice page, making them easy to prepare and implement as part of a classroom morning routine, at the beginning of each reading lesson, or as homework.

Every sixth-grade practice page provides questions that are tied to a reading or writing standard. Students are given the opportunity for regular practice in reading comprehension and word study, allowing them to build confidence through these quick standards-based activities.

Question	Common Core State Standards
	Days 1–3
1–2	**Reading Anchor Standard 1:** *Read closely to determine what the text says explicitly and to make logical inferences from it.*
3–5	**Reading Anchor Standard 4:** *Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.*
	Day 4
1–2	**Reading Anchor Standard 10:** *Read and comprehend complex literary and informational texts independently and proficiently.*
3–6	**Reading Anchor Standard 1:** *Read closely to determine what the text says explicitly and to make logical inferences from it* **or** **Reading Anchor Standard 6:** *Assess how point of view or purpose shapes the content and style of a text.*
7–8	**Reading Anchor Standard 2:** *Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.*
	Day 5
	Writing Anchor Standard 4: *Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.*

NAME:_____ DATE:_____

DIRECTIONS Read the text and then answer the questions.

What kinds of rights do you think people should have? For example, you probably think that people have the right to be safe from burglars. There are a lot of other rights that many people think we should have, too. That is why we need to have a government. Governments are there to protect the rights of citizens. In return, citizens support the government by paying taxes and obeying laws, and some serve in the armed forces. There are many different kinds of governments. One of them is the republic, which is the kind of government the United States has. In a republic, citizens elect people to represent them. Those representatives make laws that protect the citizens. In a republic, citizens do not vote on laws, but elect people to make and vote on laws.

1. According to this text, why do we need to have a government?

- (A) to protect the rights of citizens
- (B) to pay taxes and obey laws
- (C) to serve in the military
- (D) to give people what they want

2. Which is **not** something citizens do to support the government?

- (A) pay taxes
- (B) obey laws
- (C) serve in the military
- (D) make laws

3. Which word is defined as *a person who lives in a state or country*?

- (A) representative
- (B) republic
- (C) law
- (D) citizen

4. Which noun below can also be used as a verb?

- (A) government
- (B) republic
- (C) support
- (D) citizens

5. What is the meaning of the phrase *in return*?

- (A) as a favor
- (B) instead of
- (C) in exchange
- (D) most of the time

SCORE

1. (Y) (N)
2. (Y) (N)
3. (Y) (N)
4. (Y) (N)
5. (Y) (N)

___ / 5
Total

NAME: _____ DATE: _____

DIRECTIONS Read the text and then answer the questions.

SCORE

1. Ⓨ Ⓝ
2. Ⓨ Ⓝ
3. Ⓨ Ⓝ
4. Ⓨ Ⓝ
5. Ⓨ Ⓝ

___ / 5
Total

There are many other kinds of governments besides republics. One of them is the monarchy. A monarchy is a government that is run by a ruler, often a king or a queen. The monarchy is one of the oldest forms of government. Many ancient people were ruled by monarchs. For example, in ancient Egypt, the monarch was called the Pharaoh (FAIR-oh). China and Japan had monarchs for a very long time, too. Some monarchies still exist today. For example, both England and Spain have monarchs. For many centuries, monarchs made all the decisions, and they could do whatever they wanted. But that is not true today. Today's monarchs usually do not have the last word when it comes to making decisions. The decisions are made by a group of representatives. The monarch still has some power, but it is shared with others.

1. What is this text mostly about?

- (A) China
- (B) representatives
- (C) Japan
- (D) monarchies

2. Which statement is true about monarchies?

- (A) In a monarchy, the government is run by a ruler.
- (B) There are no more monarchies.
- (C) The monarchy is a brand-new form of government.
- (D) Monarchies were not common in ancient times.

3. Which word is a synonym for *monarch*?

- (A) country
- (B) government
- (C) ruler
- (D) power

4. The root *cent* means 100. The noun *centuries* probably means

- (A) hundreds of days
- (B) hundreds of years
- (C) thousands of days
- (D) thousands of years

5. What does the phrase *to have the last word* mean?

- (A) to make the decision
- (B) to say something last
- (C) to have no power
- (D) to stand behind everyone else

NAME:_____ DATE:_____

DIRECTIONS Read the text and then answer the questions.

Sometimes, a government is run by a small group of people. That form of government is called an *oligarchy.* The people who run an oligarchy are all members of the same group. They are not elected to office. Instead, they hold power because they belong to that particular group. Some oligarchies are run by the very wealthy. Some are run by the members of a ruling family. Sometimes, they are run by members of one political party. There have been many oligarchies in history. For example, the kingdom of Sparta was a city-state in ancient Greece. It was run by an oligarchy. The ruling class of Sparta had all of the power and made all of the decisions. Ordinary people did not vote. The Soviet Union lasted from 1917 to 1991; it was also an oligarchy. Only members of the Communist Party could hold office. There have been other oligarchies, too.

1. Why are the people who run an oligarchy in charge?

- (A) The people elect them.
- (B) They are members of the same group.
- (C) They do not want to be in charge.
- (D) They know how to run a government.

2. Which is a fact about an oligarchy?

- (A) A king or queen makes all of the decisions.
- (B) Anyone may be elected.
- (C) Ordinary people do not vote.
- (D) There is no government.

3. The root *arch* means *chief* in *oligarchy*. What does the root *oli–* mean?

- (A) many
- (B) few
- (C) the study of
- (D) universe

4. Which word from the text is an adjective?

- (A) wealthy
- (B) party
- (C) oligarchy
- (D) member

5. What is the tone of the text?

- (A) informative
- (B) silly
- (C) persuasive
- (D) serious

SCORE

1. (Y) (N)
2. (Y) (N)
3. (Y) (N)
4. (Y) (N)
5. (Y) (N)

___/5
Total

NAME:_____ DATE:_____

WHO'S IN CHARGE?

For as long as people have lived in groups, they have had leaders. And when people began to live in cities, they began to create governments. Governments do several things for people. A government helps to protect people's rights and keep the peace. Governments also protect the borders of the countries they serve. They also provide things such as education, highways, and mail service. People cannot easily provide those things for themselves. So the government provides them. In return, people pay taxes, obey laws, and support the government.

People have tried many different forms of government. For example, one of the earliest forms of government was the *monarchy*. In a monarchy, a ruler, usually a king or queen, is in charge. For many years, monarchs had all of the power. They made all of the decisions. Those monarchies are called *absolute monarchies*. There are still monarchies today. But the rulers cannot do whatever they want. Today, most monarchs share power. They work with a group of elected representatives. The people vote for the members of that group. These monarchies are called *constitutional monarchies*. England and Spain are constitutional monarchies.

People have also been ruled by *oligarchies*. In an oligarchy, the government is run by a small group. Some are run by the wealthy, and others are run by members of a ruling family. Still others are run by members of the same political party. In many oligarchies, the people do not vote. The people who run the government are in charge because they are members of a particular group.

Queen Elizabeth II of England

Today, people want a voice in their government, and they want to be able to vote. So many governments are run by people who are elected to office. For example, many governments are republics. In a republic, the people vote, but they do not directly vote on laws. They vote for representatives. Then, those representatives make laws and vote on those laws. The United States is a republic. France, Israel, and Ireland are also republics.

As you can see, there are many different kinds of governments. Which government do you think works best?

NAME:_____ DATE:_____

DIRECTIONS Read "Who's In Charge?" and then answer the questions.

1. If a reader doesn't remember what an *oligarchy* is, what could he or she do?

(A) Review the title and the picture.
(B) Reread the paragraph that has that word in it.
(C) Say the word out loud.
(D) Write the word a few times.

2. How is an absolute monarchy different from an oligarchy?

(A) An absolute monarchy is run by a small group.
(B) An absolute monarchy is very large.
(C) An absolute monarchy is run by one ruler.
(D) An absolute monarchy is elected by the people.

3. What might happen if there were no government?

(A) People would pay taxes.
(B) People would not be as safe.
(C) There would be new highways.
(D) People would vote in elections.

4. People who like to vote would like what form of government?

(A) a republic
(B) an oligarchy
(C) an absolute monarchy
(D) a king or queen

5. What is a purpose for reading this text?

(A) to learn about different kinds of government
(B) to learn how to vote
(C) to read a personal story
(D) to learn about a visit to England

6. How do absolute monarchs most likely feel about people who vote?

(A) They want to teach them to vote.
(B) They want them to vote.
(C) They do not want them to vote.
(D) They encourage them to vote.

7. What is something that the many different types of government have in common?

(A) They have a queen or king.
(B) All the citizens can vote.
(C) They have nothing in common.
(D) They protect their citizens and keep peace.

8. Why do you think many monarchies are now constitutional monarchies?

(A) The people want a king or a queen.
(B) Rulers do not want to share power.
(C) Rulers want to share power.
(D) The people want a voice.

SCORE

1. (Y) (N)
2. (Y) (N)
3. (Y) (N)
4. (Y) (N)
5. (Y) (N)
6. (Y) (N)
7. (Y) (N)
8. (Y) (N)

___ / 8
Total

NAME: _____ DATE: _____

DIRECTIONS Reread "Who's In Charge?" Then, read the prompt and respond on the lines below.

SCORE
___ / 4

If you could design a government, what would it be like? Write about the government you would have.

ANSWER KEY *(cont.)*

Week 34 *(cont.)*

Day 3
1. A
2. D
3. B
4. C
5. C

Day 4
1. B
2. C
3. A
4. D
5. C
6. A
7. B
8. B

Day 5
Responses will vary.

Week 35

Day 1
1. A
2. D
3. D
4. C
5. C

Day 2
1. D
2. A
3. C
4. B
5. A

Day 3
1. B
2. C
3. B
4. A
5. A

Day 4
1. B
2. C
3. B
4. A
5. A
6. C
7. D
8. D

Day 5
Responses will vary.

Week 36

Day 1
1. B
2. D
3. C
4. C
5. A

Day 2
1. A
2. C
3. A
4. D
5. B

Day 3
1. C
2. B
3. D
4. B
5. B

Day 4
1. C
2. A
3. C
4. C
5. A
6. D
7. D
8. A

Day 5
Responses will vary.

HOW TO USE THIS BOOK

180 Days of Math for offers teachers and parents a full page of daily mathematics practice activities for each day of the school year.

Easy to Use and Standards-Based

These activities reinforce grade-level skills across a variety of mathematical concepts. The questions are provided as a full practice page, making them easy to prepare and implement as part of a classroom morning routine, at the beginning of each mathematics lesson, or as homework.

Every practice page provides 12 questions, each tied to a specific mathematical concept. Students are given the opportunity for regular practice in each mathematical concept, allowing them to build confidence through these quick standards-based activities.

Question	Mathematics Concept	NCTM Standards
1	Addition or Subtraction	Understands numbers, ways of representing numbers, relationships among numbers, and number systems; Understands the meanings of operations and how they relate to one another; Computes events and makes reasonable estimates
2	Multiplication	
3	Division	
4	Place Value or Number Sense	
5	Fractions, Decimals, and Percents	Works flexibly with fractions, decimals, and percents to solve problems; Compares and orders fractions, decimals, and percents efficiently; Understands the meaning and effects of arithmetic operations with fractions and decimals
6	Order of Operations and Patterns	Understands the meanings of operations and how they relate to one another
7	Algebra and Algebraic Thinking	Understands patterns, relations, and functions; Represents and analyzes mathematical situations and structures using algebraic symbols
8		
9	Measurement	Understands measurable attributes of objects and the units, systems, and processes of measurement; Applies appropriate techniques and formulas to determine measurements
10	Geometry	Uses visualization and spacial reasoning to solve problems; Analyzes characteristics and properties of two- and three-dimensional geometric shapes
11	Data Analysis/Probability	Selects and uses appropriate statistical methods to analyze data; Understands and applies basic concepts of probability
12	Word Problem/Logic Problem or Mathematical Reasoning	Solves problems that arise in mathematics and in other contexts; Applies and adapts a variety of appropriate strategies to solve problems

Standards are listed with the permission of the National Council of Teachers of Mathematics (NCTM). NCTM does not endorse the content or validity of these alignments.

DAY 171

NAME: _____

DIRECTIONS Solve each problem.

1. Subtract 143 from 478.

_____

2. 71 x 6 = _____

3. $5\overline{)285}$

4. What is the value of the digit 6 in 35,690?

_____

5. Write one and two hundred fifty-six thousandths as a decimal.

_____

6. 4 x 5 ☐ 12 = 32

7. Distribute.

$25(11 + h)$ = _____

8. Find d. $\frac{d}{12} = 10$

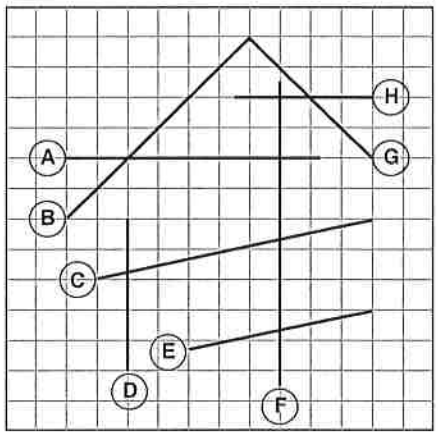
d = _____

9. How many grams are in 4.5 kilograms?

_____

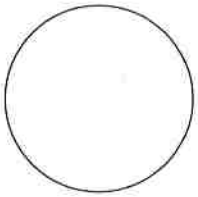
10. Which line is perpendicular to line G?

_____



11. Record the data in the circle chart.

Twelve people were surveyed. Six like dogs. Three like cats. An equal number of people like cats and birds.



12. Soup is on sale at the store for 3 cans for $1.50. How much would it cost to buy 12 cans?

_____

SCORE

1. Ⓨ Ⓝ
2. Ⓨ Ⓝ
3. Ⓨ Ⓝ
4. Ⓨ Ⓝ
5. Ⓨ Ⓝ
6. Ⓨ Ⓝ
7. Ⓨ Ⓝ
8. Ⓨ Ⓝ
9. Ⓨ Ⓝ
10. Ⓨ Ⓝ
11. Ⓨ Ⓝ
12. Ⓨ Ⓝ

___ / 12
Total

DAY 172

NAME: _____

DIRECTIONS Solve each problem.

SCORE

1. Ⓨ Ⓝ
2. Ⓨ Ⓝ
3. Ⓨ Ⓝ
4. Ⓨ Ⓝ
5. Ⓨ Ⓝ
6. Ⓨ Ⓝ
7. Ⓨ Ⓝ
8. Ⓨ Ⓝ
9. Ⓨ Ⓝ
10. Ⓨ Ⓝ
11. Ⓨ Ⓝ
12. Ⓨ Ⓝ

___ / 12
Total

1. 147 + 652 = _____

2. 42 x 30 = _____

3. 463 ÷ 6 = _____

4. Write 475,926 in expanded notation.

_____

_____

_____

_____

5. 25% of 640 is _____.

6. Complete the table. Look for a pattern and write the rule.

Number of Squares	1	2	3	4	5
Number of Sides	4				

_____

_____

7. Write the expression for seventy-two more than a number g.

_____

8. Find j. $5j = 65$

j = _____

9. 8 gallons = _____ pints

10. Name the triangle that has all angles equal to 60°.

_____

11.

Student	Savings Amount
Jack	$144
Trevor	$137
Brandon	$85
Michael	$202

Jack earned his money by mowing lawns. If he charges $12.00 to mow a lawn, how many lawns did he mow in order to earn his savings?

_____

12. Circle the factors of the given product.

Possible Factors									Product
9	3	5	2	10	6	15	13	16	156

DAY 173

NAME: _____

DIRECTIONS Solve each problem.

1. 216 – 135 = _____

2.
$$\begin{array}{r} 81 \\ \times\ 5 \\ \hline \end{array}$$

3. Is 196 ÷ 6 greater than, less than, or equal to $32\frac{5}{6}$?

_____

4. Round 345,498 to the nearest thousand.

_____

5. Simplify $\frac{9}{12}$.

_____

6. Write the next number in the pattern. –60, –45, –30, _____

7. Find *v*. $\frac{72}{v} = 8$

v = _____

8. Find *v*. $9v = 72$

v = _____

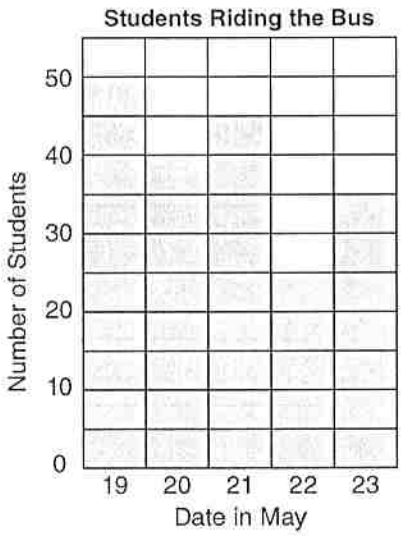
9. Calculate the perimeter of a rectangle with dimensions measuring 3.2 m by 4.2 m.

_____

10. What is the shape of a cross-section of a sphere?

_____

11.



The buss company anticipates a 10% increase in the number of riders on the 24th from the number they had on the 19th. How many students will ride the bus on the 24th?

_____

12. I am part of a whole. I am greater than one-half but less than two-thirds. I have a 0 in my hundredths place. What am I?

_____

SCORE

1. Ⓨ Ⓝ
2. Ⓨ Ⓝ
3. Ⓨ Ⓝ
4. Ⓨ Ⓝ
5. Ⓨ Ⓝ
6. Ⓨ Ⓝ
7. Ⓨ Ⓝ
8. Ⓨ Ⓝ
9. Ⓨ Ⓝ
10. Ⓨ Ⓝ
11. Ⓨ Ⓝ
12. Ⓨ Ⓝ

___ / 12
Total

DAY 174

NAME: _____

DIRECTIONS Solve each problem.

SCORE

1. Ⓨ Ⓝ
2. Ⓨ Ⓝ
3. Ⓨ Ⓝ
4. Ⓨ Ⓝ
5. Ⓨ Ⓝ
6. Ⓨ Ⓝ
7. Ⓨ Ⓝ
8. Ⓨ Ⓝ
9. Ⓨ Ⓝ
10. Ⓨ Ⓝ
11. Ⓨ Ⓝ
12. Ⓨ Ⓝ

___ / 12
Total

1. $\begin{array}{r} 106 \\ +\ 64 \\ \hline \end{array}$

2. $23 \cdot 40 =$ _____

3. $422 \div 6 =$ _____

4. Calculate the square root of 36.

_____

5. Write $3\frac{2}{5}$ as an improper fraction.

_____

6. $40 - 32 \square 6 = 14$

7. Distribute.
$21(a + 9) =$ _____

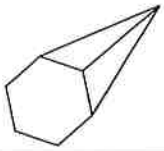
8. Find p when $\frac{p}{7} = 8.1$.

$p =$ _____

9. How many meters are in 825 centimeters?

_____

10. Complete the chart for the shape.



Name the figure.	
How many surfaces?	
How many vertices?	
Does it stack or roll?	
Is it a plane shape or a solid shape?	

11. The numbers 20 through 30 were written on individual cards and placed in a bag. If you pull a card from the bag, what is the probability that it will have a 3 on it?

_____

12. A car gets 32 miles per gallon of gas. How many miles can you expect to travel on 14 gallons of gas?

_____

DAY 175

NAME: _____

DIRECTIONS Solve each problem.

1. $\begin{array}{r} 137 \\ -\ 58 \\ \hline \end{array}$

2. 16 x 50 = _____

3. Divide 723 by 9.

_____

4. What is the last odd number before 300,000?

_____

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

6. Write the next number in the sequence. 160, 240, 320,

_____

7. Write the expression for seven more than x squared.

_____

8. Find y. $18y = 72$

$y =$ _____

9. 126 inches = _____ yards

10. How many total degrees are in three right angles?

_____

11. What is the mode of this set of data?

2,216; 2,443; 2,341; 2,443; 2,401

_____

12. The deep end of a swimming pool is 7 meters deep. If the shallow end is half as deep, how many centimeters deep is the shallow end?

_____

SCORE

1. Ⓨ Ⓝ
2. Ⓨ Ⓝ
3. Ⓨ Ⓝ
4. Ⓨ Ⓝ
5. Ⓨ Ⓝ
6. Ⓨ Ⓝ
7. Ⓨ Ⓝ
8. Ⓨ Ⓝ
9. Ⓨ Ⓝ
10. Ⓨ Ⓝ
11. Ⓨ Ⓝ
12. Ⓨ Ⓝ

___ / 12
Total

ANSWER KEY *(cont.)*

Day 163

1. 66
2. 4,300
3. 149.6
4. 27,000
5. $\frac{2}{5}$
6. 7
7. 3.2
8. 48
9. 14 cm
10. triangular prism
11. 400 trucks
12.

×	20	30	40	50	60	70
10	200	300	400	500	600	700
20	400	600	800	1,000	1,200	1,400
30	600	900	1,200	1,500	1,800	2,100
40	800	1,200	1,600	2,000	2,400	2,800

Day 164

1. 1,730
2. 1,200
3. $38\frac{2}{5}$ or 38.4
4. yes
5. 6
6. −38
7. 14
8. $900q$ or $900 \times q$
9. 24 cm
10. 60°
11. 15 minutes
12. 20 days

Day 165

1. 333
2. 4,300
3. 71
4. 47th
5. equal to
6. 1,080
7. 3
8. 2.5 or $2\frac{1}{2}$
9. 1,000 cm^3
10. 50°, acute
11. $\frac{2}{8}$ or $\frac{1}{4}$
12. 21 cups of water

Day 166

1. 231
2. 7,100
3. 39
4. less than
5. 63
6. +
7. $5x + 10$
8. $-5x - 10$ or $-5x + (-10)$
9. 55 mm
10. yes
11. spinner A
12. $(5 + 4) \times 3 = 27$
    $(4 + 5) \times 3 = 27$

Day 167

1. 128
2. 24,000
3. equal to
4. 1, 2, 4, 5, 8, 10, 20, 40
5. $\frac{1}{2}$
6. 8
7. $d - 8$
8. $8 - d$
9. 950 cm^3
10. 8 edges
11. $\frac{5}{7}$
12. 1, 2, 3, 4, 6, 8, 12, 24

Day 168

1. 211
2. 16,000
3. 30
4. 64
5. 65
6. $48 \div 4 + (8 - 6) \times 2 = 16$
7. $3x - 15$
8. $-3x + 15$
9. 195 miles
10. hexagon
11. Box A
12.

1	8	12	13
14	11	7	2
15	10	6	3
4	5	9	16

Day 169

1. 247
2. 2,560
3. $27\frac{5}{6}$
4. 10, 20, 30, 40
5. no
6. $48 \div (4 + 8) - 6 \times 2 = -8$
7. 20
8. 5.4
9. 8.45 L
10. yes
11. 30 cookies
12.

	Faces	Edges	Vertices
Decagonal Pyramid	11	20	11
Decagonal Prism	12	30	20

Day 170

1. 209
2. 1,290
3. 562.7
4. 8 digits
5. $\frac{17}{6}$
6. 64
7. 6
8. 257
9. 256 mm
10. acute angle
11. 15
12. 36 years

Day 171

1. 335
2. 426
3. 57
4. 6 hundreds or 600
5. 1.256
6. +
7. $275 + 25h$
8. 120
9. 4,500 g
10. line B
11. Divide circle into 4 equal sections: 2 sections for dogs, 1 section for birds, 1 section for cats
12. $6.00

Day 172

1. 799
2. 1,260
3. $77\frac{1}{6}$
4. 400,000 + 70,000 + 5,000 + 900 + 20 + 6
5. 160
6.

Number of Squares	1	2	3	4	5
Number of Sides	4	8	12	16	20

Rule: Multiply the number of squares by 4 to get the number of sides.

7. $g + 72$
8. 13
9. 64 pints
10. equilateral triangle
11. 12 lawns
12. 3, 2, 6, 13

Day 173

1. 81
2. 405
3. less than
4. 345,000
5. $\frac{3}{4}$
6. −15
7. 9
8. 8
9. 14.8 m
10. circle
11. 55 students
12. 0.60

Day 174

1. 170
2. 920
3. $70\frac{1}{3}$
4. 6 or −6
5. $\frac{17}{5}$
6. +
7. $21a + 189$
8. $p = 56.7$
9. 8.25 m
10. hexagonal pyramid; 7; 7; none; solid
11. $\frac{2}{11}$

ANSWER KEY *(cont.)*

12. 448 miles

Day 175

1. 79
2. 800
3. $80\frac{1}{3}$
4. 299,999
5. $\frac{3}{6}$ or $\frac{1}{2}$
6. 400
7. $x^2 + 7$
8. 4
9. 3.5
10. 270°
11. 2,443
12. 350 cm

Day 176

1. 212
2. 2,040
3. 82
4. −10
5. 300
6. 48
7. $160 - 8r$
8. 19.3
9. 4.5 liters
10. true
11. $\frac{2}{6}$ or $\frac{1}{3}$
12. 17 blocks

Day 177

1. 165
2. 2,190
3. $4\frac{15}{67}$ or 4.22
4. 1, 2, 3, 5, 6, 10, 15, 30
5. $\frac{11}{3}$
6. −21
7. $9h - 99$
8. $19e$ or 19 x e
9. 70 cm^2
10. 8 vertices
11. 13.8
12. $14.75

Day 178

1. 241
2. 1,080
3. $52\frac{3}{4}$ or 52.75
4. 14
5. $\frac{9}{10}$
6. −3
7. $\frac{7}{11}$
8. $\frac{2}{4}$ or $\frac{1}{2}$
9. 1,050 km
10. The hexagon and pentagon should be circled.
11. $\frac{23}{35}$
12. 4 gallons of lemonade and 1 gallon of ice cream

Day 179

1. 242
2. 1,460
3. $72\frac{1}{5}$ or 72.2
4. Any number ending in 0 is divisible by 5.
5. 2.5, 2.6, 2.8
6. 6 or −6
7. $n - 18$
8. 13 or −13
9. $5\frac{1}{4}$ inches
10. 7 cm
11. 12 times
12. 4 tables

Day 180

1. 708
2. 1,728
3. $31\frac{1}{8}$ or 31.125
4. 3,468
5. $\frac{5}{8}$
6. 560
7. $6b + 6c$
8. 4.6
9. 27 cm^2
10. obtuse angle
11. $8
12.

Addition	Palindrome
56 + 65	121
132 + 231	363
623 + 326	949
235 + 532	767

Sir Isaac Newton and LeBron James

by ReadWorks

The English physicist and mathematician Sir Isaac Newton discovered three basic laws of motion. The First Law says that objects at rest and objects in motion will remain at rest or in motion, unless they are acted upon by an "unbalanced force." The Second Law says that when a force acts on a mass, acceleration is produced. The greater an object's mass is, the more force is needed to accelerate it.

Newton's laws of motion have become known throughout the world, including his Third Law of Motion. It reads: "For every action, there is an equal and opposite reaction." A simpler way of saying this might be: "When you push an object, it pushes back." For every force, in other words, there is a reaction force equal in size.

There are many ways to describe how the Third Law of Motion works in the world of sports. One of the more interesting examples is the way that LeBron James dunks a basketball.

In order for LeBron James to score a slam-dunk, he must exert a certain amount of force against the

surface of the basketball court. LeBron James is a big man. He is 6 feet, 8 inches tall. He weighs 245 pounds. When he is standing upright, with his arms raised above his head, his reach extends to 8 feet and 10 ¼ inches.

The rim of the basketball hoop is exactly 10 feet high. For LeBron James to slam the ball, he must propel himself high enough that he can force the basketball, which is approximately 9.39 inches in diameter, into the hoop. This requires that he reach well above the height of the rim, which he does fairly often. In photographs and slow-motion replays of LeBron James dunking the basketball, his elbow is often equal to the height of the rim!

LeBron James may be tall, strong, and fast. He may be extremely mobile and flexible. But it is no easy feat to dunk a basketball, especially when you weigh 245 pounds. His vertical leap-that is, the maximum height he can reach when he jumps-is around 44 inches. The average vertical leap in the National Basketball Association, or NBA, is about 27 inches. That means that LeBron James, despite his large size, can jump more than 10 inches higher than most players in the NBA! This is a serious benefit in basketball, a game of inches in which how high someone can jump often means the difference between scoring and missing the shot.

Why can LeBron James jump higher than other basketball players? The answer has to do with Newton's Third Law of Motion. When LeBron James jumps, he is driving force into the court. That force is created by the energy stored inside his muscles. And how high he jumps depends not just on how much energy he forces into the surface of the court, but also on how well he does it.

When LeBron James jumps, he pushes down on the surface of the court. This is the "action" that Newton mentions in his Third Law. The "reaction" comes when the floor pushes back using an equal amount of force.

It may seem strange to think of the floor exerting force on an object, especially a basketball player. But this concept is what Sir Isaac Newton understood way back in 1687, when he published his most famous book, *Mathematical Principles of Natural Philosophy*.

Newton would have been fascinated by LeBron James's jumping ability. But he would also have understood that it is not simply the strength of James's legs that enables him to jump so high. The stability of his body, located in his core and his torso, also contributes to the energy that he forces into the surface of the court. The energy and strength of LeBron James's *entire body* is what enables him to reach such fantastic heights.

Watching LeBron James dunk on television often causes people to think he is defying the force of gravity, which pulls us and other objects to the ground. In reality, no one can defy such force. LeBron James just happens to be so strong and agile that, when he jumps into the air, he *appears* to be defying the force of gravity. He seems almost capable of flying.

Naturally, smaller basketball players require less force to dunk a basketball. Since they are lighter, they don't have to combat the same gravitational pull. On the other hand, the fact that they are lighter means they do not have as much mass to store energy. The more muscles you have, the more energy you can force into the ground, and the higher you can go.

This is why professional basketball players appear to have no fat on their bodies at all. Fat does not store energy as effectively as muscle, but it still contributes to one's body weight. Fat on a basketball

player is equal to wearing lead weights around their hips during a game. Obviously, this would hinder a player's performance, especially his ability to dunk.

Physicists have spent time thinking about the physics of dunking. To remain in the air for one second, they say, one would have to have a vertical leap of 4 feet, which is higher than pretty much any basketball player of all time. One exception is Michael Jordan, who is believed to have the highest vertical leap-48 inches, or 4 feet-of any professional basketball player. Michael Jordan was just 6 feet, 6 inches tall-average for an NBA player-but his vertical leap placed his head about 6 inches above the rim.

That one of the best basketball players in history also has the highest vertical leap is no coincidence. Michael Jordan's body was strong, stable, and proportioned in such a way that the force he pushed onto the ground placed him above the rest. He was one of the best overall athletes in the game, and his slam-dunking ability was an indication of his prowess.

From basketball players like LeBron James to Michael Jordan, it may seem like they are bending the rules of physics and gravity when they dunk a basketball. On the contrary, they are able to perform crowd-rousing dunks because of these rules.

Name: _____ **Date:** _____

1. What is Sir Isaac Newton's Third Law of Motion?

A. Objects at rest and objects in motion will remain at rest or in motion, unless they are acted upon by an unbalanced force.

B. For every action there is an equal and opposite reaction.

C. When a force acts on a mass, acceleration is produced.

D. When a force acts on a mass, the mass increases.

2. What does the author describe in the passage?

A. Sir Isaac Newton's most famous book, *Mathematical Principles of Natural Philosophy*

B. how LeBron James developed his basketball dunking skills

C. how Sir Isaac Newton came up with the three basic laws of motion

D. how the way that LeBron James dunks a basketball illustrates Newton's Third Law of Motion

3. Read the following sentences from the passage: "When LeBron James jumps, he pushes down on the surface of the court. This is the 'action' that Newton mentions in his Third Law."

Based on this information, LeBron James jumping is an example of which part of Newton's Third Law?

A. both the action and the equal and opposite reaction

B. the equal and opposite reaction of an action

C. the action which causes an equal and opposite reaction

D. neither the action nor the equal and opposite reaction

4. The force created when the court pushes LeBron James upwards is equal to which force?

A. the force LeBron James used to dunk the ball

B. the force LeBron James drives into the court when he jumps

C. the force LeBron James uses to throw the ball

D. the force LeBron James drives into the court when he lands after jumping

5. What is the main idea of this passage?

A. LeBron James and Michael Jordan are two of the best players in the history of professional basketball.

B. Basketball players must have high vertical leaps in order to dunk basketballs.

C. Newton's Third Law of Motion is related to the First and Second Laws of Motion.

D. Newton's Third Law of Motion can be examined using the examples of basketball players jumping.

6. Read the following paragraph from the passage:

"LeBron James is a big man. He is 6 feet, 8 inches tall. He weighs 245 pounds. When he is standing upright, with his arms raised above his head, his reach extends to 8 feet and 10¼ inches."

How can the tone of the author best be described in this paragraph?

A. humorous

B. angry

C. disinterested

D. factual

7. Choose the answer that best completes the sentence below.

_____ LeBron James has an impressive vertical leap of 44 inches, Michael Jordan holds the record with a vertical leap of 48 inches.

A. In contrast

B. For example

C. Although

D. Initially

8. According to the passage, in order for LeBron James to score a slam-dunk, what must he exert?

9. When LeBron James jumps, he is driving force into the court. How is this force created?

10. How does the example of LeBron James jumping to dunk a basketball illustrate Newton's Third Law of Motion? Use information from the passage to support your answer.