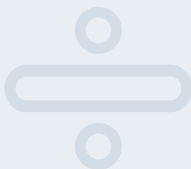
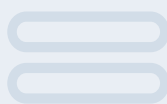


# Grade 6

## MINNESOTA STANDARDS FAMILY GUIDE

What Your Child Should Know  
Activities & Examples of ELA & Math  
Tips for Talking with Teachers



# About This Guide



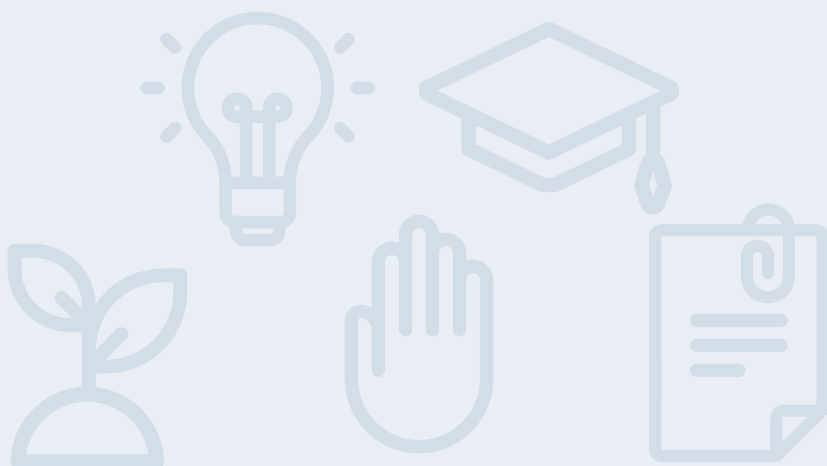
Families want to know what their child is learning in school. They want to advocate for their child & help them succeed in school.

The Minnesota Department of Education decides what every child will learn in school in all subjects. This guide helps you understand those standards in English Language Arts (ELA) & Math. This will help you partner with your child's teachers to support learning during 6th grade.

## **BEFORE YOU START**

**Before reviewing this guide, we encourage you to check your student's current grade level at [www.bealearninghero.org/readiness-check-mn](http://www.bealearninghero.org/readiness-check-mn).**





## *This Guide Includes*



**What your child should know & be able to do—  
PAGE 4 FOR ELA & PAGE 15 FOR MATH**

The most important content (knowledge & skills) for students to learn by the end of 6th grade



**Examples of ELA & Math—  
PAGE 7 FOR ELA & PAGE 17 FOR MATH**

Example work your child should be able to write by the end of 6th grade



**Everyday activities to support learning—  
PAGE 13 FOR ELA & PAGE 19 FOR MATH**

Ways you can support your child in learning important content & skills in English Language Arts (ELA) & Math



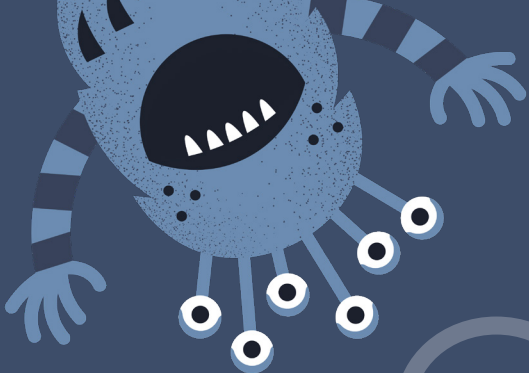
**Tips for talking with teachers—  
PAGE 14 FOR ELA & PAGE 20 FOR MATH**

How you & your child's teacher can work together to help your child grow



**Education words glossary—  
PAGE 21**

Definitions of common education words relevant to 6th grade



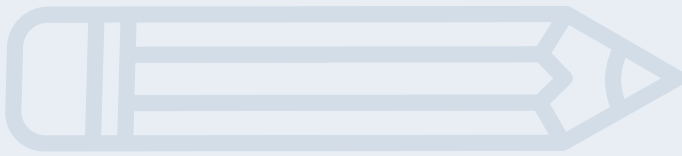
# English Language Arts

## WHAT YOUR CHILD SHOULD KNOW & BE ABLE TO DO

In Grade 6, students spend more time asking questions about a text & finding answers in the text. Students ask themselves what the writer thinks, look for important points in a text, & check if what the writer says is true. Students should read about half fiction & half nonfiction. Books should have a range of text complexity & teach them about new people, places, & ideas, including the voices of past & present Dakota & Anishinaabe people.

6th graders should also practice writing often. Some assignments will take many days. They practice research, writing, & revision. They edit after getting feedback from self, teachers, & peers. They practice writing for different types of readers.

To see all 6th grade state standards for ELA see here: [education.mn.gov/mde/dse/stds/ela](http://education.mn.gov/mde/dse/stds/ela)



## ***6th graders need to know how to do the things below by the end of the year:***

### **APPLYING LITERACY SKILLS**

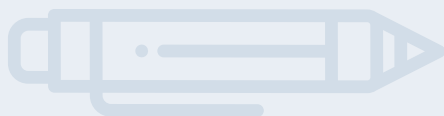
- ✓ Read texts at a 6th grade level, which is a Lexile level 925-1185
- ✓ Read 6th grade texts smoothly, which is 110-160 words per minute
- ✓ Read with expression that shows they understand the text as they read it
- ✓ Write & revise complete essays. Use correct spelling, grammar, capital letters, & punctuation marks, including these:

Dash	Hyphen	Ellipses	Semicolon	Colon	Commas	Apostrophes	Quotation Marks	End of Sentence
-	-	...	;	:	,	'	“ ”	!?

- ✓ Use technology to write & work with others & do research on a topic using trusted sources
- ✓ Never copy work that is not theirs, which is called **plagiarism**
- ✓ Understand their **digital footprint**, which is the trail of data we each leave on the internet
- ✓ Type 33 words in one minute. Write three pages in one hour

## LEARNING ABOUT THE WORLD THROUGH TEXT

- ✔ Ask & answer questions about texts they have read.  
Re-read the text to find specific information to support their understanding. Be able to do the following:
  - Find themes, key points, & main ideas
  - Quote directly & **paraphrase** the text
  - Study how a key person, event, or concept is introduced & how they change
  - Explain how different parts of the text impact the meaning
  - Describe how the story moves & how the characters respond
  - Study how the author & their viewpoint affect text
  - Question what an author or a speaker assumes
- ✔ Find the meaning of new words using clues in the text, dictionaries, or the root word
- ✔ Write about what they are reading. Write with this structure: introduction that states the main point, examples in order, & a conclusion or short summary of what they have written
- ✔ Explain something using their writing. Use different ways to explain themselves, including compare/contrast, cause/effect, problem/solution, & critique
- ✔ Write with specific words that relate to the subject
- ✔ Make someone believe you with your writing
- ✔ Write to show their own feelings or feelings of others. Show how a character can have complex feelings or reasons for their actions





## 6<sup>TH</sup> GRADE ENGLISH LANGUAGE ARTS EXAMPLES

Below is an example of a 6th grade text.<sup>1</sup> This text is at a Lexile level of 950. 6th graders should read this smoothly & with expression. They can tell you about the text & answer the questions below.

### RED CLOUD'S SPEECH AFTER WOUNDED KNEE

Red Cloud (or Ma píya Lúta) (1822-1909) was an important leader of the Oglala Lakota who led a successful campaign against the U.S. Army between 1866 and 1868. The conflict began over white encroachment into territory inhabited by Native American Plains tribes in the Wyoming and Montana territories, and it ended with the Fort Laramie Treaty of 1868, which established the Great Sioux Reservation. Red Cloud and his people settled on the Pine Ridge Indian Reservation in South Dakota, but he would go on to regret signing the treaty, stating: "They made us many promises, more than I can remember. But they kept but one—They promised to take our land...and they took it." On December 29, 1890, near Wounded Knee Creek on the Lakota Pine Ridge Indian Reservation, U.S. Cavalry troops fired on a group of Lakota people, many of them women and children, and killed more than 150 and wounded 51, some of whom died later.

Red Cloud delivers the following speech after the Wounded Knee Massacre in order to shed light on the plight of the Native American peoples living on reservations. Throughout Red Cloud's life, he was a proponent of peace and in this speech he argues that those who were killed at Wounded Knee and involved in the Ghost Dance movement were not proponents of violence against whites.

I will tell you the reason for the trouble. When we first made treaties with the Government, our old life and our old customs were about to end; the game on which we lived was disappearing; the whites were closing around us, and nothing remained for us but to adopt their way—the Government promised all the means necessary to make our living out of the land, and to instruct us how to do it, and with abundant food to support us until we could take care of ourselves. We looked forward with hope to the time we could be as independent as whites, and have a voice in the Government.

<sup>1</sup>Red Cloud's Speech after Wounded Knee by Chief Red Cloud is in the public domain. Introduction obtained from CommonLit, Inc, licensed under CC BY-NC-SA 4.

The army officers could have helped better than anyone else but we were not left to them. An Indian Department was made with a large number of agents and other officials drawing large salaries — then came the beginning of trouble; these men took care of themselves but not of us. It was very hard to deal with the government through them — they could make more for themselves by keeping us back than by helping us forward. We did not get the means for working for our lands; the few things they gave us did little good. Our rations began to be reduced; they said we were lazy. That is false. How does any man of sense suppose that so great a number of people could get work at once unless they were once supplied with the means to work and instructors enough to teach them? Our ponies were taken away from us under the promise that they would be replaced by oxen and large horses; it was long before we saw any, and then we got very few. We tried with the men we had, but on one pretext or another, we were shifted from one place to another, or were told that such a transfer was coming. Great efforts were made to break up our customs, but nothing was done to introduce us to the customs of the whites. Everything was done to break up the power of the real chiefs. Those old men really wished their people to improve, but little men, so-called chiefs, were made to act as disturbers and agitators. Spotted Tail wanted the ways of the whites, but an assassin was found to remove him. This was charged to the Indians because an Indian did it, but who set on the Indian? I was abused and slandered, to weaken my influence for good. This was done by men paid by the government to teach us the ways of the whites. I have visited many other tribes and found that the same things were done among them; all was done to discourage us and nothing to encourage us. I saw men paid by the government to help us, all very busy making money for themselves, but doing nothing for us.... The men who counted [the U.S. census] told all around that [we] were feasting and wasting food. Where did he see it? How could we waste what we did not have? We felt we were mocked in our misery; we had no newspaper and no one to speak for us. Our rations were again reduced.

You who eat three times a day and see your children well and happy around you cannot understand what a starving Indian feels! We were faint with hunger and maddened by despair. We held our dying children and felt their little bodies tremble as their soul went out and left only a dead weight in our hands. They were not very heavy but we were faint and the dead weighed us down. There was no hope on earth. God seemed to have forgotten. Someone had been talking of the Son of God

<sup>1</sup>Red Cloud's Speech after Wounded Knee by Chief Red Cloud is in the public domain. Introduction obtained from CommonLit, Inc, licensed under CC BY-NC-SA 4.



and said He had come [a reference to the Ghost Dance movement]. The people did not know; they did not care; they snatched at hope; they screamed like crazy people to Him for mercy they caught at the promise they heard he made. The white men were frightened and called for soldiers. We begged for life and the white men thought we wanted theirs; we heard the soldiers coming. We did not fear. We hoped we could tell them our suffering and could get help. The white men told us the soldiers meant to kill us; we did not believe it but some were frightened and ran away to the Badlands. The soldiers came. They said: “don’t be afraid — we come to make peace not, war.” It was true; they brought us food. But the hunger-crazed who had taken fright at the soldiers’ coming and went to the Badlands could not be induced to return to the horrors of reservation life. They were called Hostiles and the Government sent the army to force them back to their reservation prison.

## COMPREHENSION QUESTIONS

1. Answer the following questions, use evidence from the text to support your answers.
2. How did the government impact Native Americans’ lives?
3. What is the meaning of the word ration as it is used in this speech?
4. Why did some people not fear the soldiers’ arrival?

<sup>1</sup>Red Cloud’s Speech after Wounded Knee by Chief Red Cloud is in the public domain. Introduction obtained from CommonLit, Inc, licensed under CC BY-NC-SA 4.

Below is an example of writing at a 6th grade level.<sup>2</sup>

### LYDDIE'S CHOICES

Lyddie Worthen is the main character in Katherine Patterson's Lyddie. Lyddie is a young girl living on a Vermont farm in the 1840's. This is the time of the Industrial Revolution. Lyddie's father has abandoned the family and Lyddie's mother leaves her and her brother behind thinking that the world is coming to an end. The only thing Lyddie has left is her farm which she desperately wants to hold on to. In order to keep her farm Lyddie has to work off the debts on her farm, but the job she has isn't paying enough, so she leaves to begin a new life as a factory girl at the newly developed textile mills in Lowell Massachusetts. Because of working in the Lowell mills Lyddie gets a broader sense of herself. She is able to make some choices about who she wants to be in her life.

Introduces the main idea of the essay clearly, including the title, author, & characters

Uses specific words that link to the Industrial Revolution

Lyddie is working at a place called Cutlers Tavern for very low wages. If she keeps working like this she will never be able to pay off her debts, so she decides to go to Lowell and work in the mills so that she can make more money.

Uses specific words that link to the Industrial Revolution

She is told by a customer who works in the mills "you'd do well in the mill you know. You'd clear at least two dollars a week. And' she paused 'you'd be independent.'" (p. 25)

Gives important facts, definitions of words, & quotations from the text

Lyddie then makes the choice to go to the mill. She realizes that at the mill she will be able to pay off the farm debts faster. This is a hard choice for Lyddie, if she stays at the tavern she knows that she will continue to make money and eventually pay off the debt. If she goes to the mill she has a chance of not getting the job at all but if she does get the job she will be able to pay off the farm debts much faster. This is when Lyddie

Gives important facts, definitions of words, & quotations from the text

Uses specific words that link to the Industrial Revolution

<sup>2</sup>Writing sample obtained with permission from Student Partners. "Student Writing Samples." Achieve the Core, <https://achievethecore.org/category/330/student-writing-samples>

begins to take her life into her own hands and makes the choice to take a chance at the mill.

Uses specific words that link to the Industrial Revolution

When Lyddie begins working at the mill, she starts making much more and with that money she is able to buy a book. Lyddie does not have a good education and people at the mills by her roommate Betsy she becomes passionate about reading so she goes to buy a book.

“I-I come to purchase at book...” “what book do you have in mind...” “uh-uh Oliver Twist if you please sir” (p.83-84) she then pays with two silver dollars.

Explains the quote & why it supports the topic

By making the choice to purchase that book she opens the doors to education and becomes a smarter person who loves to learn. She also changes from a thrifty penny pincher to someone who realizes that money isn't always the most important thing in life.

Because of Lyddie's love for reading she makes the choice to leave the farm that she has just returned to, and leave Luke, the man who loves her to go to Oberlin College in Ohio.

“I'm off” she said “to Ohio, there's a college there that will take a women just like a man” (p.181)

By making the choice to go to college Lyddie is showing that she won't give up on her education and won't give up on an adventurous life. Even though things haven't been great for her she is still ready to start another chapter in her life.

Uses a mix of transition words to show how ideas & concepts connect to one another

What does the author want us to understand about the power of the Industrial Revolution? I think that in Lyddie it is showing that the Industrial Revolution gave people many opportunities in their

Uses specific words that link to the Industrial Revolution

<sup>2</sup>Writing sample obtained with permission from Student Partners. “Student Writing Samples.” Achieve the Core, <https://achievethecore.org/category/330/student-writing-samples>

lives. The Industrial Revolution also had lots of hard moments where people would get sick, break a bone, or even die. The Industrial Revolution seemed to rule a lot of people's lives and ruin their families. Lyddie took advantage of the Industrial Revolution well and through the choices she made was able to pull past just being a factory girl and take different paths in life.

Provides a conclusion that retells the main point of the essay



<sup>3</sup>Writing sample obtained with permission from Student Partners. "Student Writing Samples." Achieve the Core, <https://achievethecore.org/category/330/student-writing-samples>



## EVERYDAY ACTIVITIES TO SUPPORT LEARNING

★ ***If your 6th grader gets stuck on words often, or if they sound choppy when reading, talk with their teacher about their fluency. Also, have your child practice reading short texts to get better, such as poems or short stories***

- Ask your 6th grader to choose a book they want to read on their own each day. Reading many books over time is important. Let your child pick so they will be excited to read
- Go to the Hennepin County library together often - it's free! Anyone can get a free library card, regardless of immigration status
- Pick a topic to learn about together. Read books, look online, or do short research projects together. Ask what they learned in their reading. Have them share with you, with friends, or with other family members
- Ask your child to practice their writing. They can keep a journal, write letters or emails, or take notes about what they are learning
- Listen to podcasts together & talk or write about what you learned
- Show your 6th grader how they can use what they learn at school later in life:
  - Ask friends & family to show your 6th grader how they can use the things they are learning at school
  - Attend a writing class at the community center
  - Ask your child to volunteer at community events & activities
- Talk about college with your 6th grader. Look at what you need to apply to go to college. Show your middle schooler how the classes they are taking now will prepare them for high school & college
- Give your child weekly chores that make them read like cooking, shopping, & sorting mail
- Make a homework schedule & stick to it. Make sure your child has finished their homework every day

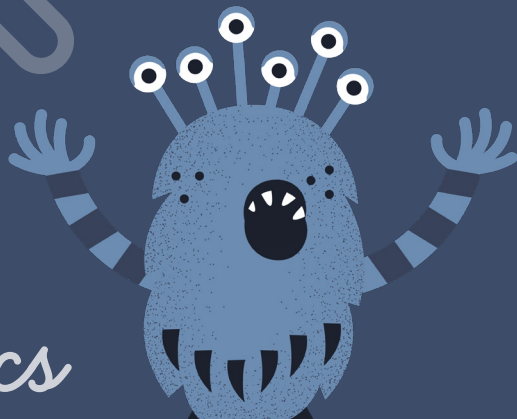




# TIPS

## TIPS FOR TALKING TO TEACHERS

1. Can you show me the results of my child's most recent reading assessment?
2. What is my 6th grade student good at, & how do you use these skills in class?
3. How do you choose what the class reads? Will my 6th grader see faces & places they know in the books? Will they learn about new people & places?
4. What are the 6th graders learning when they read? What should my 6th grader be able to understand & talk about based on what they read? What topics do they read about in history & science?
5. Does my 6th grader get to choose books that are interesting to them? Are they only allowed to read books you have chosen or books at a specific reading level?
6. Can my 6th grader write in a way that shows you they know what they are reading & learning? Do they use examples from the text & enough details? Do they use the right spelling, grammar, & punctuation? If they are not, how can I help them?
7. How much can my child write in a single class period? How do they get feedback & revise their writing?
8. Do you have any examples of my child's writing? Has my child rewritten anything?
9. Can my 6th grader speak & listen in class that shows they understand what they are learning? Do they use proof from the text, present their answers in detail, & speak with enough depth to show they understand? If not, what challenges are they facing?
10. What can I do to support my 6th grader in class? How can they build a strong relationship with you & take responsibility for their learning?



# Mathematics

## WHAT YOUR CHILD SHOULD KNOW & BE ABLE TO DO

In 6th grade, students learn about **ratios** & **proportions**. They also learn to simplify **expressions**, & solve **equations**. Students should work together in class, talk about how they solve problems, & learn from each other. 6th graders should make mathematical arguments & try different ways to solve problems. They should solve both number & word problems, including real world problems. Lastly, they should estimate solutions before solving & know if their estimate is reasonable.

6th grade students will spend most of their time learning the following topics. They should understand them well by the end of the year.

To see all 6th grade state standards for Math see here: [education.mn.gov/MDE/dse/stds/Math](https://education.mn.gov/MDE/dse/stds/Math)

## LEARNING 6<sup>TH</sup> GRADE MATHEMATICS<sup>3</sup>

- ✔ Add, subtract, multiply & divide with big numbers & decimals quickly
- ✔ Find common **factors** & **multiples** of whole numbers quickly
- ✔ Understand **ratios** & **rates**, & solve problems involving **proportional** relationships

**If it took 7 hours to mow 4 lawns, how many lawns could be mowed in 35 hours?**

- ✔ Solve problems involving percentages. Find the part when given the whole & the percentage

**Would you prefer 33% of a \$100 prize or 75% of a \$50 prize?**

- ✔ Multiply & divide fractions. Calculate equivalent fractions, decimals, & percents
- ✔ Understand **absolute values**. Be able to put the absolute value of positive & negative numbers in order
- ✔ Read, write, & rearrange **expressions** using **order of operations** & basic **properties of algebra**

**$24x + 18y$  can be rewritten as  $6(4x + 3y)$   
 $y + y + y$  can be rewritten as  $3y$**

- ✔ Use **variables** to stand for quantities. Write **equations** & **inequalities** to solve word problems & describe relationships between variables

**A farmer uses a tractor to plant corn quickly in the springtime. The farmer plants 216 acres every 12 hours. Write an equation for the number of acres the farmer plants in "n" hours.**

- ✔ Solve simple equations with one unknown quantity or variable

$$7x = 22 \quad \text{then} \quad x = ?$$

- ✔ Find area, surface area, & volume of 2D & 3D shapes. Explain the formulas used
- ✔ Develop understanding of statistics. Determine & interpret measures of center (including mean, median, & mode) & measures of variability (including range). Select the right measures to use to solve a question

<sup>3</sup><https://www.mathmilestones.org/gradelevel-grids>

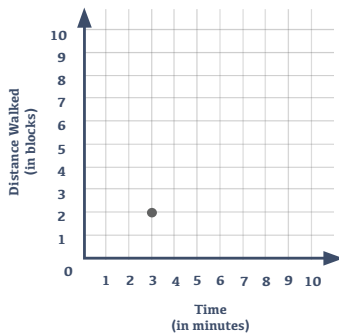




## 6<sup>TH</sup> GRADE MATH EXAMPLES

Below are examples of math problems at a sixth grade level.<sup>4,5</sup>

1. There are 24 adults and 30 children at a science museum. What is the ratio of children to total people at the science museum?
2. Brennan is  $b$  years old. Shin is 1 year less than 2 times Brennan's age. Marcos is 1 year less than 3 times Brennan's age. The sum of the ages for all 3 boys is 22. Which equation shows this situation?
  - A)  $3b - 1 = 22$
  - B)  $5b - 2 = 22$
  - C)  $6b + 2 = 22$
  - D)  $6b - 2 = 22$
3. A study showed that the ratio of the number of people who get their news from social media to the number of people who get their news from other sources is 3:7.
  - a.) Based on the ratio, how many people in a town of 900 people get their news from social media?
4. It takes Mildred about 3 minutes to walk 2 blocks. A point has been plotted in the coordinate plane to show this situation.
  - a.) Plot a second point that represents an equivalent ratio.



- b.) Explain what the coordinates of the point you plotted represent.

<sup>4</sup>Released items from Minnesota Comprehensive Assessment. Copyright MDE <https://education.mn.gov/MDE/dse/test/items/>

<sup>5</sup>Math problems obtained with permission from Student Partners. "Mathematics Assessments." Achieve the Core, <https://achievethecore.org/category/1020/mathematics-assessments>

5. A store has two different sizes of ice cream. The smaller container costs \$3.87 for 48 ounces. The larger container costs \$6.42 for 128 ounces. Which ice cream costs less per ounce? Explain your answer using numbers, words, and/or pictures.

6.  $462.8 + \frac{1}{8} = ?$

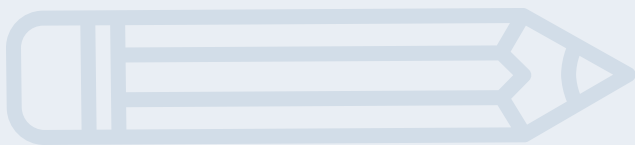
7. Jenna's family is going on a trip to visit relatives.

- After driving 72 miles, they used 3.2 gallons of gas.
- Her family has 850 miles remaining on their road trip.
- The gas tank in their car can hold 15 gallons.

They filled the gas tank at the start of the road trip. They plan to only stop to fill up when their gas tank nears empty. There are plenty of gas stations along their route.

How many additional stops for gas will Jenna's family need to make to get to their destination? Explain your answer using numbers, words, and/or pictures.

8. A water tank shaped like a rectangular prism is 78 inches tall, 66 inches wide, and 2 feet long. A cubic foot of water weighs approximately 62.43 pounds. What is the weight of the water the tank can hold when it is full?



Answer key on page 26.

<sup>4</sup>Released items from Minnesota Comprehensive Assessment. Copyright MDE <https://education.mn.gov/MDE/dse/test/items/>

<sup>5</sup>Math problems obtained with permission from Student Partners. "Mathematics Assessments." Achieve the Core, <https://achievethecore.org/category/1020/mathematics-assessments>



## EVERYDAY ACTIVITIES TO SUPPORT LEARNING

★ **Talk to your 6th grader about the math they can do. What new things are they learning? Are they having any trouble? Can you help them?**

- When your 6th grader needs help with homework, ask them questions that help them learn how to solve the problem. Don't solve the problem for them
- Help your 6th grader find things that will help them learn. Ask your student to talk to their teachers about things that can help, such as practice activities, extensions, or more resources
- Have your child talk about the things they are learning & where they see these things in the world around them. For example, where do they see negative numbers outside of math class?
- Take your child shopping. Ask them to compare prices to find the best deal. Ask them to estimate the tax
- Ask your 6th grader about math problems they want to solve. Can they use this math when they are older at their jobs?
- Ask your 6th grader to do statistical research in categories that interest them. For example, have them find the top 30 songs they've listened to this month. Find range, mean, & mode song duration
- Show them where you use math in your everyday life



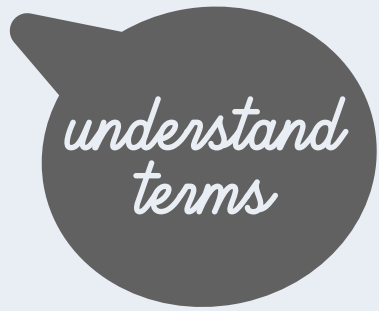


# TIPS

## TIPS FOR TALKING TO TEACHERS

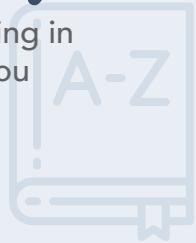
1. Can you show me my child's most recent math test?
2. What are the most important topics 6th graders are learning about in math? Is my child understanding the materials? Can you share specific examples?
3. How does my child approach hard math tasks? How can I help them face challenging problems?
4. What should my child understand & talk about from what they have learned?
5. Can my child show you that they understand what they learned? If not, what challenges them? How can I help?
6. How can I support & encourage my 6th grader to take charge of their learning?





## Education words glossary

Educators use words that have a specific meaning in schools. Understanding those terms will help you talk to the teacher.



### ABSOLUTE VALUE



The distance a number is from zero. The symbol “|” is placed on both sides of a number to mean absolute value, so we the absolute value of  $x$  is written as  $|x|$ .

$$|4| = 4 \quad |-5| = 5$$

### AUTHOR'S POINT OF VIEW



The author's point of view describes from what perspective the story is being told. For example, it may be a character in the story that is narrating, or the author may be an outside observer.

### DIGITAL FOOTPRINT



The information about a person that exists on the internet as a result of their online activity. This includes posts on social media, photos, online purchases & reviews, passwords, subscriptions & many other types.

### EQUATION



A statement in which two things are equal. Equations often have unknown numbers (called variables) that are written as a letter. For example,  $3b + 5 = 14$ .



## EXPRESSION



Numbers, symbols, & operators (such as + and x) grouped together that show the value of something. For example,  $y + 4$  is an expression, and  $3 - x/2$  is also an expression.

## FACTOR



Factors are numbers we can multiply together to get another number. For example, 2 & 3 are factors of 6 because 2 times 3 equals 6.

## INEQUALITY



The relationship between two sets of numbers that are not equal. Inequalities typically include an unknown number. For example,  $7x < 28$ .

## LEXILE



A popular leveling system used by students, teachers, & parents to show two things:

- 1) A student's individual reading level
- 2) The difficulty of the text

You can often find the Lexile number on the back of the book or by searching the title on [www.lexile.com](http://www.lexile.com).

Grade-appropriate Lexile levels:

Grade 6-8 level 925–1185

## MEAN



The mean is sometimes also referred to as the average. The mean is found by adding together all of the values in a data set & then dividing by the total number of values.

## MEDIAN



After ordering the data set from lowest to highest, the median is the value in the middle of the data set.

## MODE



The mode is the number that occurs most frequently in a data set. There can be no mode if all of the numbers occur with the same frequency. There can also be more than one mode if multiple numbers were observed the most frequently.

Ages of students: 8, 9, 10, 11, 11, 13, 13, 14, 14, 14, 15		
Mean = (Total) (Number of students) Mean = $132 \div 11$ Mean = 12	Median = Middle number Median = 13	Mode = Age that occurs most often Mode = 14

## MULTIPLE



Multiples are the numbers you get when you multiply any number by a whole number. For example, multiples of 5 are: 10, 15, 20, 25, 30...etc.

## ORDER OF OPERATIONS



The order of operations is the rule that tells us the order we should use to solve an expression with many steps. The order we follow can be remembered with the acronym PEMDAS:

- 1) **P**arentheses
- 2) **E**xponents
- 3) **M**ultiplication & **D**ivision from left to right
- 4) **A**ddition & **S**ubtraction from left to right

## PARAPHRASE

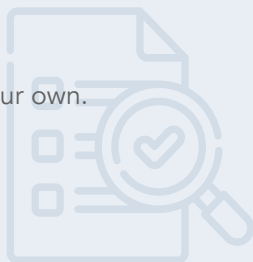


Rewording a sentence or paragraph in your own words.

## PLAGIARISM




Claiming someone else's work or ideas as your own.



## PROPERTIES OF ALGEBRA

Properties of algebra describe the different ways that numbers can be combined. In 6th grade students use the associative, commutative & distributive properties of algebra.

Property	Explanation	Example
Associative	Changing the grouping in parentheses of terms you are adding does not change the total.	$(-3 + 5) + 2$ is equal to $-3 + (5 + 2)$
	Changing the grouping in parentheses of terms you are multiplying does not change the total	$(3 \times 5) \times -2$ is equal to $-3 \times (5 \times -2)$
Commutative	Changing the order you add terms does not change the total	$3 + 5 + 2$ is equal to $2 + 3 + 5$
	Changing the order you multiply terms does not change the total	$3 \times 5$ is equal to $5 \times 3$
Distributive	When you are multiplying a term by terms in parentheses that are being added, you can distribute the multiplication across both terms and add the products  $a(b + c) = ab + ac$	$5(3 + 2) =$ $5 \times 3 + 5 \times 2 =$ $15 + 10 =$ $25$

## PROPORTIONAL RELATIONSHIPS

A relationship between two varying quantities in which one quantity is a constant multiple of another quantity. For example, every ant has 6 legs, so in an ant farm, the total number of legs is six times the total number of ants, so the number of legs is proportional to the number of ants. .

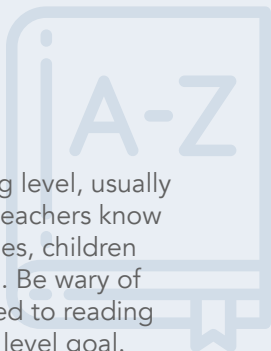
## RANGE

The difference between the highest & the lowest values in a data set.

## RATIO

The relationship between the amount of two or more things. For example, if the ratio between boys to girls in a class is 12:15, then there are 12 boys in the class & 15 girls.





## READING LEVEL



Teachers often measure a student's reading level, usually marked by a letter or number. This helps teachers know what students need to learn. But sometimes, children are only allowed to read texts at that level. Be wary of this practice. Children should not be limited to reading only texts that are at or below their grade level goal.

## TEXT COMPLEXITY

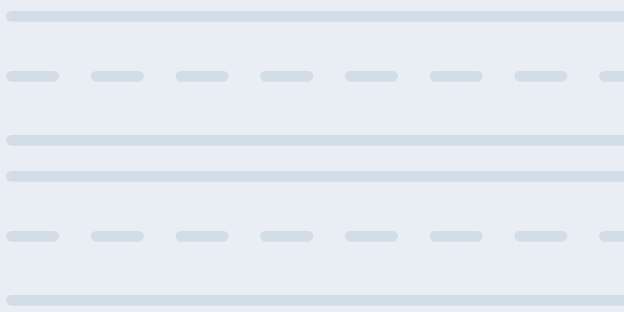
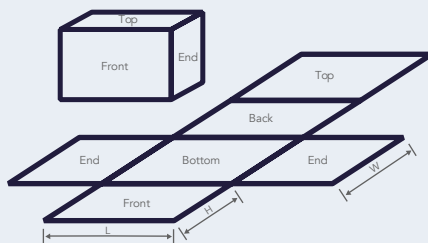


A measure of how difficult a text is. Text complexity is based on many factors. Text structure & word choice can make it more complex. A text is more complex if readers need more knowledge to understand the meaning, or if the text has a complicated meaning.

## SURFACE AREA



Surface area is the amount of space covering the outside of a three-dimensional shape.



## VARIABLE



A variable is an unknown numerical value in an equation or a math expression. Variables are shown with a symbol (usually a letter).

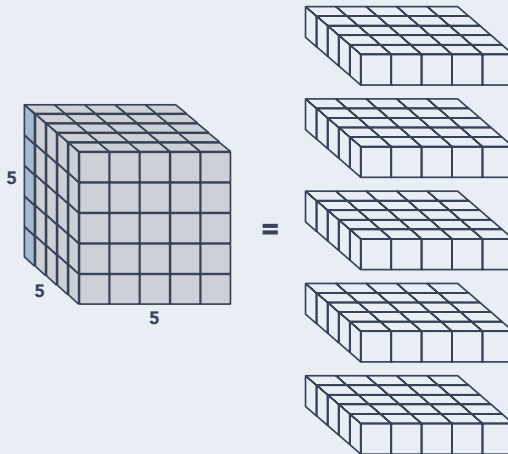
$$2x + 1 = 9$$

|  
variable

## VOLUME



The amount of 3-dimensional (3D) space that an object takes up. Volume tells us the amount we need to fill the object. For example, the amount of water needed to fill a bottle. We measure the volume of an object in cubic units such as cubic centimeters, cubic inches, cubic feet, etc.



### ANSWER KEY

**1:** 5; **9:** 2; **D)**  $6b - 2 = 22$ ; **3:** 270; **4a:** Answers may vary, points (1.5, 1), (6, 4), and (9, 6) are all equivalent; **4b:** Answers may vary, point (6, 4) represents Mildred walking 4 blocks in 6 minutes; **5:** the larger container costs less per ounce; **6:** 463; **7:** Number of additional stops  $\approx 1.516$ , since we can't have a fraction of a stop, we must round up. Jenna's family will need to make 2 additional stops for gas to reach their destination. **8:** 4463.745 pounds

### REFERENCES

Minnesota Department of Education Academic Standards <https://education.mn.gov/mde/dse/stds/>

Seek Common Ground Family Guides <https://seekcommonground.org/family-guides>





# NOTES

Handwriting practice lines consisting of solid top and bottom lines with a dashed middle line. There are seven sets of these lines available for writing notes.



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SCAN ME