

Madison Mustangs

Grade 8 ELA- Parent Academic Help Sheet

Parents: If you review the following information every night with your student, it will make a huge difference in their readiness to learn.

* *Idioms:* A phrase with meaning that cannot be understood from the ordinary meaning of the individual words.

Example:

In a fish bowl = having no privacy.

Come to terms = In agreement with.

* *Analogies:* Shows the relationships between two sets of words.

Synonyms- Fair: Just :: Fine : Exquisite

Antonyms- Begin : End :: Arrive : Leave

Whole- Part - Country : USA :: Subject : Reading

Homophones- Weight : Wait :: Heir : Air

Worker- Tool- Shovel : Gardener :: Hammer : Carpenter

* *Metaphor:* A direct comparison between two things.

Example: Amy is a wildflower growing in a garden.

* *Simile:* A comparison of two things using the word *like* or *as*.

Example: Sometimes Jasper is *like* a train that has run off track.

* *Word Origins-*

Root- A part of a word that carries more of the word's meaning

Affix- Prefixes and Suffixes

Prefix – Added to the beginning of a word

Suffix- Added to the end of a word

* *Context Clues-* Words in a sentence that can help a reader understand the meaning of unfamiliar words.

Kinds of Context Clues:

Definition: Explains the meaning for you.

Example: Illustrates or give an example.

Restatement: Says again in different words.

Contrast: Shows a difference, or what it is not.

12 Powerful Words that Trip up Students on Standardized Tests

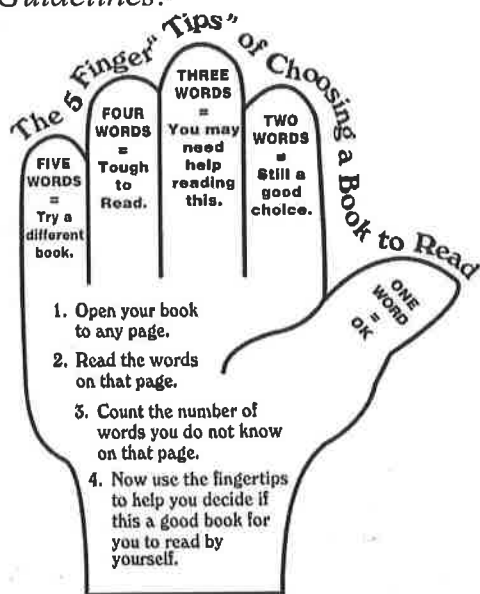
Word	Student Friendly Phrases
1. Trace	List in step or outline
2. Analyze	Break it apart
3. Infer	Conclude from circumstances/based on reasoning
4. Evaluate	Judge
5. Formulate	Create
6. Describe	Tell all about
7. Support	Back up with details
8. Explain	Tell how
9. Summarize	Give me the short version
10. Compare	All the ways they are alike
11. Contrast	All the ways they are different
12. Predict	What will happen next

DAILY FIVE Reading Routines

- Read to Self
- Read to Friend
- Read Aloud
- Summarize
- Review Academic Vocabulary

Parents: Research shows that reading 20 minutes a day at home can significantly improve a student's vocabulary, comprehension skills, and general knowledge. The main goal is for your child to enjoy reading.

Guidelines:



Routines:

Have your child:

- Read to self
- Read to someone
- Listen to reading
- Work on writing (journals)
- Word work

Journal Writing: Have your child write a journal on their reading using these sentence frames-

- My favorite part...
- This reminds me of...
- I predict that...
- I wonder why...
- My favorite character is...
- I was confused when...
- After reading, I felt...
- I was surprised when...
- I pictured in my head...
- I like this author because...
- I was disappointed when...
- The big idea is...
- Some evidence is...
- Some words I am not sure of are ...
- The theme of chapter _____ is _____ because _____.
- My evidence is from page _____ and is (then they quote it) " _____".
- I made a connection with...

Madison Mustangs

Grade 8 Math- Parent Academic Help Sheet

Parents: If you review the following information every night with your student, it will make a huge difference in their readiness to learn.

Solving Multi-Step Equations

$$2x + 5 = 11$$

Your goal is to get the variable (x) on one side of the equation by itself.

Step 1:

Do the inverse operation to remove the numbers from the left side of the equation, and do the same to the right side to keep it balanced.

$$\begin{array}{r} 2x + 5 = 11 \\ -5 \quad -5 \\ \hline 2x = 6 \end{array}$$

Step 2:

A number touching a variable means to multiply. The inverse of multiplication is division.

$$\frac{2x}{2} = \frac{6}{2}$$

$$x = 3$$

Properties:

Commutative Property of Addition:

$$6 + 5 + 3 = 3 + 5 + 6$$

Commutative Property of Multiplication:

$$6(5) = 5(6)$$

Associative Property of Addition:

$$(6+5) + 3 = (3+5) + 6$$

Associative Property of Multiplication:

$$(2 \times 3) \times 4 = 2 \times (3 \times 4)$$

Inverse Property of Addition:

$$2 + -2 = 0$$

Inverse Property of Multiplication:

$$\frac{1}{2} \times \frac{2}{1} = 1$$

Identity Property of Multiplication or zero

$$A \times 1 = A \quad n(0) = 0$$

Distributive Property: $7(5+3) = 7(5) + 7(3)$

Order of Operations

Parentheses- First solve what is in the ()

Exponents- Next solve any 2^2

Multiplication or **D**ivision- From left to right.

Addition or **S**ubtraction- From left to right.

Madison Mustangs

Grade 8 Math- Parent Academic Help Sheet

Parents: If you review the following information every night with your student, it will make a huge difference in their readiness to learn.

Quadratic Formula

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Point Slope Form

[if you know a point and the slope,
use this form]

$$y - y_1 = m(x - x_1)$$

m = slope

(x_1, y_1) = any point on the line

$$\text{slope} = \frac{y_2 - y_1}{x_2 - x_1}$$

$$y = mx + b$$

↑ ↑
slope y-intercept

$$y = 3x - 5$$

↑ ↑
slope y-intercept

DATA/Statistics

Outliers – extremely big and small numbers compared to the data set.

Random Sample- an objective sample that every number has an equal chance of being selected

<u>Mean</u> - average number obtained by adding the all the numbers and dividing by the total numbers used	<u>Biased Samples</u> - non-random sample – every number not equally likely to be selected
<u>Median</u> - middle number obtained by lining numbers up in order from largest to smallest and	<u>Range</u> – difference between largest and smallest number
<u>Mode</u> – number that appears most often	<u>Statistical Question</u> <i>What size shoe is most common in your classroom?</i>

Measures of Central Tendency - middle size - 1 number that represents group measurements

<i>Outliers</i> – Extreme numbers/data Really big or really small compared to the others (outside the data set)	<i>Mean – Average</i> (Balancing number) Add all the numbers and divide them by the total numbers in the set.	<i>Box Plots</i> – shows the distribution of data- summarizing the data using outliers, lower quartile, upper quartile and outlier
<i>Random</i> - every number has an equal chance of being selected.	<i>Mode</i> -number that appears most often	<i>Frequency tables</i> – T-Chart with information and data.
<i>Histogram</i> T-Charts and tables with data ranges with information.	<i>Range</i> – difference between the smallest and largest number	<i>Median</i> – middle Line numbers in sequential order. Cross them out until you reach the middle.

Function- a system of relationships with inputs and outputs- relates 2 elements of a set with exactly one element of another set

Input, X, Domain
Output, Y, F(X), Range