Primary Grades Instructional Data

VOCABULARY TERMS AND DEFINITIONS

for the Web-based MAP® system

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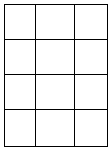
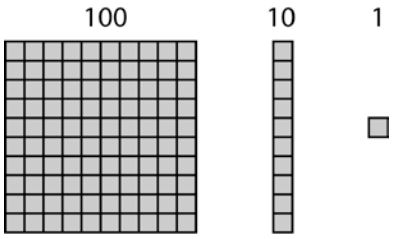
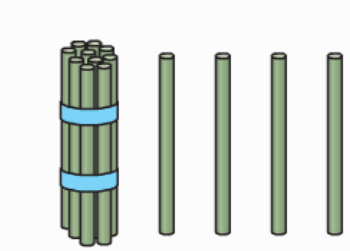
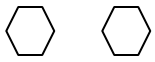
Glossary of Terms for Instructional Data

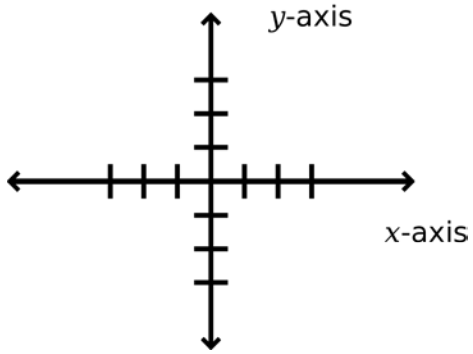
The following glossaries are provided to assist the instructor in understanding the content and skills described in the Primary Grades Instructional Data statements.

Mathematical Terms Glossary

The following table contains the mathematical glossary of terms. Definitions used with students at the primary age would most likely not include all of the information contained here.

TERM	DEFINITION
addend	Any number that is added. In the equation 3 + 4 = 7, the addends are 3 and 4.
algebraic equation	An equation that contains unknown values.: 5 + ☐ = 7 or 5 + x = 7
analog clock	A clock with hands. 
arithmetic pattern	A pattern in which a fixed amount is added or subtracted to each term in order to generate the next term. 3, 7, 11, 15, 19, 23 is an arithmetic pattern because the fixed amount added to each term is 4.
array	An arrangement of numbers or objects in rows and columns, often used for multiplication problems: There are 4 rows of candies in a box. Each row has 3 candies. How many candies are in the box? 
attributes	A characteristic that identifies an object as part of a group. The attributes of a triangle include: ▪ 3 sides ▪ 3 angles ▪ Sides are straight lines

TERM	DEFINITION
base-ten blocks	Blocks used to represent 1, 10, 100, or 1000: 
bundles of tens and ones	Bundles of 10 sticks and individual sticks used to represent groups of 10s and 1s: 
capacity	The amount of liquid that a vessel can hold. Volume and capacity are often used interchangeably. However, we use the term capacity when referring to liquids since they must be contained in something, and volume when referring to solids. The volume of a ceramic mug refers to the solid, ceramic part of the mug. The capacity of the mug is the amount of liquid that it holds.
change unknown	A word problem where initial and resulting amounts are known but the amount added to or subtracted from the initial amount is unknown: Tom had 6 fish. He got more fish for his birthday. He now has 9 fish. How many fish did Tom get for his birthday?
congruent	Objects that have the same shape and are the same size: 
conjecture	An observation or general conclusion based on a number of facts: A student observes that 6 + 0 = 6, 5 + 0 = 5, and 2 + 0 = 2. The student's conjecture might be that when you add zero to a number, you get the number you had at the start.

<table>
<tr><th>TERM</th><th>DEFINITION</th></tr>
<tr><td>coordinate graph</td><td>A 2-dimensional grid which describes the location of an object using the x-axis and y-axis:
 
</td></tr>
<tr><td>dividend</td><td>The amount that is divided by another number, or shared equally.
In the equation 15 ÷ 3 = 5, the dividend is 15.</td></tr>
<tr><td>divisor</td><td>The number by which another number is divided, or the number of equal groups into which an amount is shared.
In the equation 21 ÷ 3 = 7, the divisor is 3.</td></tr>
<tr><td>equal sharing</td><td>A division strategy where students equally divide the given number of objects to determine the number of objects in each group.
Sari has 30 pencils. She has 5 boxes. She wants to put the same number of pencils into each box. How many pencils should she put into each box? At the manipulative level, students would put 1 pencil into Box 1, 1 pencil into Box 2, 1 pencil into Box 3, 1 pencil into Box 4, 1 pencil into Box 5, then go back and put a second pencil into Box 1, a second pencil into Box 2, and so on, until all pencils have been put into boxes. The student then counts the number of pencils in 1 box.</td></tr>
<tr><td>equality</td><td>A mathematical statement that shows two parts are equal or contain sets that have the exact same elements.</td></tr>
<tr><td>equation</td><td>A number sentence showing that the amount on one side of the equal sign has the same value as the amount on the other side:
5 + 3 = 8; or 5 + □ = 8; or 5 + 3 = 6 + 2</td></tr>
<tr><td>equivalence</td><td>Equations, expressions, or sets of numbers/objects can be composed in different ways but still have the equal values. Students can use their understanding of equivalence to solve problems.</td></tr>
<tr><td>expanded notation</td><td>Decomposing numbers to show the value of each digit:
628 = 600 + 20 + 8</td></tr>
<tr><td>expression</td><td>A collection of numbers, symbols, variables, and/or operation signs:
8; or 6 + 5; or 8 – □; or 5n</td></tr>
<tr><td>extends a function table</td><td>Determines the next numbers(s) in a function table.
<table>
<tr><td>people</td><td># of legs</td></tr>
<tr><td>1</td><td>2</td></tr>
<tr><td>2</td><td>4</td></tr>
<tr><td>3</td><td>6</td></tr>
<tr><td>4</td><td>?</td></tr>
</table></td></tr>
</table>

<table>
<tr><th>TERM</th><th>DEFINITION</th></tr>
<tr><td>extends a pattern</td><td>Determines the next number(s), letter(s), or shape(s) in a pattern:
a a a b a a a b a a a b ?
2, 5, 8, 11, 14, ?</td></tr>
<tr><td>fact family</td><td>A set of facts, each of which relates the same three numbers through addition and subtraction or through multiplication and division:
3 + 4 = 7 3 x 4 = 12
4 + 3 = 7 4 x 3 = 12
7 – 4 = 3 12 ÷ 3 = 4
7 – 3 = 4 12 ÷ 4 = 3</td></tr>
<tr><td>factor</td><td>A number you multiply.
In the equation 3 × 2 = 6, the factors are 3 and 2</td></tr>
<tr><td>frequency table</td><td>A table that is used to display the number of objects
Animals Number
Cows 6
Dogs 7
Pigs 3</td></tr>
<tr><td>function table</td><td>A chart that is used to display a function:
people | # of legs
1 | 2
2 | 4
3 | 6
4 | 8</td></tr>
<tr><td>fundamental counting principle</td><td>The rule used to calculate all of the possible combinations of a given number of events or outcomes. For example:
If you have 5 shirts and 3 pairs of pants, how many different combinations can you make of one shirt and one pair of pants? 5 x 3.</td></tr>
<tr><td>geometric pattern</td><td>A pattern in which you multiply each term by a given amount to determine the next term in the pattern.
The pattern 3, 6, 12, 24, 48 is a geometric pattern because you multiply by 2 to get the next term in the pattern.</td></tr>
<tr><td>growing pattern</td><td>A pattern of numbers or objects which increases or decreases arithmetically or geometrically.</td></tr>
</table>

<table>
<tr><th>TERM</th><th>DEFINITION</th></tr>
<tr><td>hundreds chart</td><td>A 10 x 10 grid representing the numbers from 1 to 100 in rows and columns of ten:

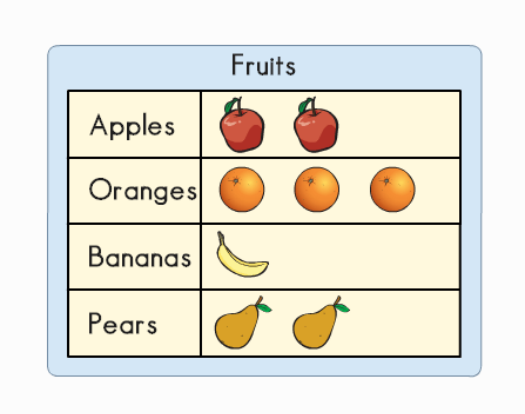
<table>
<tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr>
<tr><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td></tr>
<tr><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td></tr>
<tr><td>31</td><td>32</td><td>33</td><td>34</td><td>35</td><td>36</td><td>37</td><td>38</td><td>39</td><td>40</td></tr>
<tr><td>41</td><td>42</td><td>43</td><td>44</td><td>45</td><td>46</td><td>47</td><td>48</td><td>49</td><td>50</td></tr>
<tr><td>51</td><td>52</td><td>53</td><td>54</td><td>55</td><td>56</td><td>57</td><td>58</td><td>59</td><td>60</td></tr>
<tr><td>61</td><td>62</td><td>63</td><td>64</td><td>65</td><td>66</td><td>67</td><td>68</td><td>69</td><td>70</td></tr>
<tr><td>71</td><td>72</td><td>73</td><td>74</td><td>75</td><td>76</td><td>77</td><td>78</td><td>79</td><td>80</td></tr>
<tr><td>81</td><td>82</td><td>83</td><td>84</td><td>85</td><td>86</td><td>87</td><td>88</td><td>89</td><td>90</td></tr>
<tr><td>91</td><td>92</td><td>93</td><td>94</td><td>95</td><td>96</td><td>97</td><td>98</td><td>99</td><td>100</td></tr>
</table>
</td></tr>
<tr><td>input</td><td>The ‘x’ term in a function. In the example below, the numbers in the people column represent the inputs:

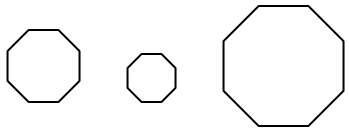
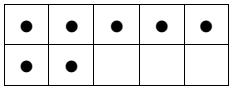
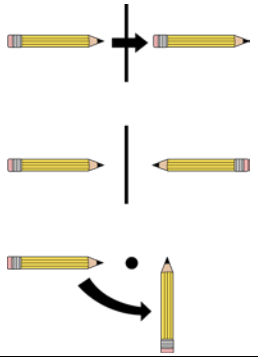
<table>
<tr><td>people</td><td># of legs</td></tr>
<tr><td>1</td><td>2</td></tr>
<tr><td>2</td><td>4</td></tr>
<tr><td>3</td><td>6</td></tr>
<tr><td>4</td><td>?</td></tr>
</table>
</td></tr>
<tr><td>inverse operation</td><td>The opposite operation. The inverse of addition is subtraction. The inverse of multiplication is division.
The inverse of 4 + 2 = 6 is 6 – 2 = 4.
The inverse of 4 × 2 = 8 is 8 ÷ 2 = 4.</td></tr>
<tr><td>likelihood</td><td>Expressing probability using terms such as impossible, unlikely, equally likely, likely, and certain:
Without looking, pull a block from a bag with 8 red blocks and 2 blue blocks.
It is unlikely a blue block will be selected.
It is likely a red block will be selected.

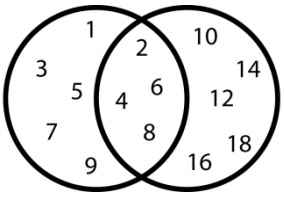
Without looking, pull a block from a bag with 8 red blocks and 0 blue blocks.
It is certain a red bock will be selected.
It is impossible a blue block will be selected.

Without looking, pull a block from a bag with 8 red blocks and 8 blue blocks.
It is equally likely that a blue or red block will be selected.</td></tr>
</table>

<table>
<tr><th>TERM</th><th>DEFINITION</th></tr>
<tr><td>logic (problem solving)</td><td>Students do not necessarily need to compute to solve logic problems. Instead, a student must use his or her understanding of directional words and ordinal numbers to organize attributes into groups and understand a complex situation.</td></tr>
<tr><td>manipulatives</td><td>Objects or pictures of objects that children move to solve a problem.
Using manipulatives—Student must move object(s) to show their answer; used in enhanced questions.
Manipulatives given—Student may move object(s) to help figure out the answer, but they must select a number as their answer; used in enhanced questions.
Manipulatives shown—Pictures of objects are in the item, but they cannot be moved; used in multiple choice questions.</td></tr>
<tr><td>mass</td><td>The amount of matter in an object:
The mass of a student is 29 kg</td></tr>
<tr><td>mean</td><td>The statistical average.
(The sum of a set of numbers divided by the total number in the set.)</td></tr>
<tr><td>median</td><td>The middle value of a set of numbers in numerical order.</td></tr>
<tr><td>minuend</td><td>The number you subtract from.
In the equation 15 – 8 = 7, the minuend is 15.</td></tr>
<tr><td>mode</td><td>The number that occurs most often in a set of numbers.</td></tr>
<tr><td>non-standard unit</td><td>A unit of measure not found on a ruler (for example, paper clips used to measure length).</td></tr>
<tr><td>number sentence</td><td>A mathematical statement in which equal values are on each side of the equal sign</td></tr>
<tr><td>numeral</td><td>A symbol representing a particular number.
The number six is represented by 6 in the decimal system, VI in the Roman system.</td></tr>
<tr><td>one-to-one correspondence</td><td>Connecting the sequence of numbers in a one-to-one match with the number of objects being counted:
Touch or move the first object, say 1; touch or move the second object, say 2; touch or move the third object, say 3.</td></tr>
<tr><td>operation</td><td>Addition, subtraction, multiplication, and division are the four basic operations.</td></tr>
<tr><td>output</td><td>The “y” term in a function.
The numbers in the # of legs column represent the output:<table><tr><th>people</th><th># of legs</th></tr><tr><td>1</td><td>2</td></tr><tr><td>2</td><td>4</td></tr><tr><td>3</td><td>6</td></tr><tr><td>4</td><td>?</td></tr></table></td></tr>
<tr><td>part unknown</td><td>A word problem where the whole or total amount is known, one part of the whole is known, but the other part is unknown:
Pat has 9 pencils. 4 pencils are red, the rest are green. How many pencils are green?</td></tr>
</table>

<table>
<tr><th>TERM</th><th>DEFINITION</th></tr>
<tr><td>pictograph</td><td>A visual way of representing information using pictures or symbols to represent data:
Favorite Lunch
<table><tr><td>Sandwich</td><td>☺</td><td>☺</td><td>☺</td><td>☺</td></tr><tr><td>Hot dog</td><td>☺</td><td>☺</td><td></td><td></td></tr><tr><td>Pizza</td><td>☺</td><td>☺</td><td>☺</td><td></td></tr></table></td></tr>
<tr><td>picture graph</td><td>A graph, table, or chart in which each picture or symbol is used to represent a different type of data:
 
</td></tr>
<tr><td>procedure</td><td>A set process for efficiently performing an operation or solving a problem.</td></tr>
<tr><td>range</td><td>The difference between the largest and smallest values in a set of numbers.</td></tr>
<tr><td>reasoning strategies (problem solving)</td><td>Students use reasoning strategies to infer information from a multi-step problem. They must understand the problem, determine missing information, and then perform multiple operations to solve the problem.</td></tr>
<tr><td>regrouping</td><td>An equivalent form of a number, such as 14 = 10 + 4.</td></tr>
<tr><td>repeated addition</td><td>A strategy to solve multiplication problems where the student adds factors the appropriate number of times:
To determine the number of wheels on 6 tricycles, the student could add 3 + 3 + 3 + 3 + 3 + 3</td></tr>
<tr><td>repeated subtraction</td><td>A division strategy where student can repeatedly subtract a given amount (divisor) to determine the number of times subtraction is necessary (quotient:
Maria has 30 pencils. She wants to put 5 pencils into each box. How many boxes does she need? At the manipulative level, students put 5 pencils into the first box, then 5 pencils into the next box, then 5 pencils into the next box until all 30 pencils have been put into boxes. The student then counts the number of boxes used.</td></tr>
<tr><td>repeating pattern</td><td>A pattern where a group of numbers or symbols are used in the same order many times:
2 5 4 2 5 4 2 5 4 2 5 4 …
Δ □ ● Ø Δ □ ● Ø Δ □ ● Ø Δ □ ● Ø …</td></tr>
</table>

TERM	DEFINITION
result unknown	A word problem where the initial amount and the amount added to or subtracted from the initial amount are known, but the resulting amount is unknown: Tom had 6 fish. He got 3 fish for his birthday. How many fish does Tom now have?
set	A collection of numbers or objects that are members of a defined group: The set of odd numbers less than 10 is {1, 3, 5, 7, 9}
similar	Objects that have the same shape, but are not the same size: 
start unknown	A word problem where the amount added to or subtracted from the initial amount is known and the resulting amount is known but the initial amount is unknown: Tom had some fish. He got 5 fish for his birthday. He now has 9 fish. How many fish did Tom have before his birthday?
strategy	A plan or method to solve a problem: Draw a picture, make a table, work backwards, make a list, guess and check.
subtrahend	The number subtracted from another number: In the equation 15 – 8 = 7, the subtrahend is 8.
ten-frame	A 2 x 5 array, in which markers or dots are placed to represent numbers. For example, 7 is represented as: 
transformation	The result of an object being moved (slide, flip, turn): 

TERM	DEFINITION
Venn diagram	A drawing showing the relation between sets of numbers or objects drawn as circles or geometric shapes. Numbers less than 10 compared to even numbers less than 2 
weight	The force of gravity on an object: Weight of a man on Earth is 168 pounds. Weight of the same man on the Moon is 28 pounds.

Reading Terms Glossary

The following table contains the reading glossary of terms. Definitions used with students at the primary age would most likely not include all of the information contained here.

TERM	DEFINITION
blend	A sequence of consonants before or after a vowel (for example, tr, gl).
blending	To draw individual sounds together to pronounce a word.
character traits	Words that describe a character (for example, kind, compassionate, selfish, rude).
complex sentence	A sentence that contains a main clause and one or more dependent clauses.
consonant cluster	Adjacent consonants before or after a vowel sound (for example, spl, scr).
consonant digraph	Two adjacent consonant letters that create a single sound but are not represented by either letter alone: sh in ship th in that (voiced th) th in think (unvoiced th) ch in chair tch in watch ph in phone gh in enough
CVC CVCe CCVC CVV CVVC	CVC = Consonant-Vowel-Consonant; for example, cat. CVCe = Consonant-Vowel-Consonant; for example, rake. CCVC = Consonant-Consonant-Vowel-Consonant; for example, trip. CVV = Consonant-Vowel-Vowel; for example, bee. CCVCC = Consonant-Consonant-Vowel-Consonant-Consonant; for example, stand.
diphthong	A vowel combination in a single syllable involving a glided speech sound from one vowel to the other: oi in boil oy in toy ou in out ow in plow ew in flew
evaluative comprehension	The ability to understand fact, opinion, bias, assumptions, and elements of persuasion; can evaluate the validity and quality of written materials; can compare works, evaluate conclusions, and apply what is learned to real life experiences.
genre	A division of a particular form of art according to criteria particular to that form; in all art forms, genres are vague categories with no fixed boundaries and are formed by sets of conventions; some common literary genres are prose, drama, and poetry; all three can be further subdivided into “prose genres,” “dramatic genres,” and “poetic genres.”
grapheme	A letter or group of letters that spell one sound (for example, b, sh, ough as in though).
graphophonic cues	One of the three cueing systems that help readers decode words and text; the use of letters and letter patterns (graphic), and sound-symbol correspondence (phonic) knowledge to decode words in text.

TERM	DEFINITION
homographs	Words that are spelled the same but have different meanings and origins; they do not necessarily have the same pronunciation.
homonyms	Words that are spelled and pronounced the same, but have different meanings.
homophones	Words that sound the same but are spelled differently and have different meanings.
inflectional endings	A letter or letters added to the end of a word to show: ▪ Possession (your**s**) ▪ Plurality(tree**s** or sandwich**es**) ▪ Tense (jump**ed**) ▪ Active or passive voice (I have taken) ▪ State (Jill was danc**ing)** ▪ Comparison (small**er**, small**est**)
informational text	Texts that are non-fiction; includes functional, technical, workplace writing, textbooks, newspapers, etc.
informational passage	A portion or section of a larger informational text.
interpretive comprehension	The ability to make reasonable predictions before, during, and after reading; can draw inferences necessary for understanding; can recognize and connect cause and effect relationships; and can summarize and synthesize information from a variety of written materials.
literal comprehension	The ability to recall, identify, classify, sequence details and facts, interpret directions, and identify stated main ideas from a variety of written materials.
literary elements	Individual aspects or characteristics, like plot, setting, characters, of a whole work of literature; literary elements are not "used" by authors; rather, they exist inherently in forms of literature and are derived by the readers of the work in question. They serve as a way to talk about, organize, and conceptually connect with text. (Also known as "elements of literature.")
literary texts	Texts that can be either fiction or nonfiction prose, dramatic, or poetry. What distinguishes literary text is that it is imaginative and many forms do not have to adhere to facts and verifiable information. NWEA has classified biographies, autobiographies, and literary essays as literary texts, along with the conventional genres such as short story, legend, fable, tall tale, etc.
metaphor	A comparison of two unlike things: Life is a bowl of cherries.
onomatopoeia	A word that sounds like a noise (for example, bang, crash, pop).
onset/rime	The initial consonant sound or sounds that come before a vowel in a syllable; the remainder of the syllable is called its rime. In the word back, "b" is the onset and "ack" in the rime.
phoneme	A unit of sound in speech; the English language has approximately 44 phonemes.
phonemic awareness	The understanding that words are made up of individual sounds (phonemes); phonemic awareness is a sub-category of phonological awareness.
phonics	The relationships between the sounds of a language and the letters used to represent those sounds; also a type of reading instruction to teach the sound-symbol correlation.
phonogram	A vowel followed by a consonant sound; can be an entire syllable or part of a word (for example, ack, ing, ed).

TERM	DEFINITION
phonological awareness	Understanding of the sound structures in language, and the ability to distinguish units of speech, such as words, syllables, and phonemes (for example, egg is one word, which has one syllable and two phonemes).
picture word	A graphic representation of a word.
predictable text	Texts that support beginning readers through rhyme, repetition, cumulative sequence, or the use of children's oral language through familiar songs.
pre-reading behaviors	The pre-reading behaviors assessed in the Early Literacy Screening Assessment include the following concepts and skills: ▪ Ability to identify a person reading, to recognize a book ▪ Understanding of the concepts of beginning, middle, and end ▪ Knowledge that a book tells a story
r-controlled vowel sound	A vowel followed by an "r," which changes the pronunciation of the vowel (for example, car, fur, her, sir).
rhyme	The repetition of identical or similar sounds in two or more different words.
semantic cues	One of the three cueing systems that help readers decode words and text; semantic cues are hints based on the meaning of the words or the meaning suggested by illustrations.
sight word	A word that can be read instantly. This may include high frequency words, which could be decodable.
simile	A comparison of two unlike things that uses "like" or "as": She was as quiet as a mouse.
simple sentence	A sentence structure that contains one independent clause and no dependent clauses.
spelling patterns	Spelling system that associates certain combinations of letters with certain sounds and syllables; orthographic structures (for example, cvc, cvce, c+le).
syllabication	The separation of words into syllables (either written or spoken).
syllable	A unit of organization for a sequence of speech sounds; an open syllable ends in a vowel sound; a closed syllable ends in a consonant sound.
syllable types	The six basic syllable spelling patterns in English: 1. Closed—has a short vowel and ends in at least one consonant(for example, pret/zel) 2. Open—ends with a long vowel that is spelled with a single vowel (for example,bro/ken) 3. Consonant + le—final syllable that is unaccented and ends in *l* and silent *e* (for example, rid/dle) 4. Vowel team(and diphthong)—syllable with a long or short vowel sound spelled with a vowel combination, and includes *ou/ow oi/oy* diphthongs (for example, team, aw/ful, boil/er) 5. *R*-controlled—a syllable where the vowel is followed by *r* (for example, part/ner, bor/der) 6. Vowel-consonant-*e*—a syllable that has one vowel, a consonant, and silent *e,* making the middle vowel say its name (for example, lake, a/lone, de/lete)(Moats, 100)
syntactic cues	One of the three cueing systems that help readers decode words and text; the use of grammatical structures (for example, word order, function words, and inflectional endings) to make meaning from text.

TERM	DEFINITION
vowel diagraph	Two vowels paired together that make one sound (for example, boat, tea, rain).
writing web	A graphic organizer; generally used during the prewriting stage of the writing process, which helps students organize their brainstorming ideas and begin to see how the topics and concepts might relate to each other.

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