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| Lesson Overview:  |
|  | If A=1¢, B=2¢, C=3¢, etc., students attempt to find a word that, when the letters in that word are added together, equals exactly $1. Practice addition, mental math strategies, and estimation. |
|  | If A=1¢, B=2¢, C=3¢, etc., students attempt to identify the most expensive word from a given set of words. Practice addition, mental math strategies, and estimation. |
|  | If A=1¢, B=2¢, C=3¢, etc., students attempt to identify the most expensive word from a smaller set of 3-6 letter words. Practice addition, mental math strategies, and estimation. |

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| For ALL Students: |
| * Calculators may be optional. Use to check estimation or addition.
* Opportunities for students to work together and to share and discuss responses and to talk through mental math and estimation strategies
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| Related Common Core State Standards: |
| **7th Grade: Expressions and Equations:**7.EE.3. Assess the reasonableness of answers using mental computation and estimation strategies. |
| **4th Grade: Operations and Algebraic Thinking:**4.OA. 3. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. |
| **3rd Grade: Operations and Algebraic Thinking:**3.OA.8. Assess the reasonableness of answers using mentalcomputation and estimation strategies including rounding. |
| **3rd Grade: Numbers and Operations in Base Ten:**3.NBT.2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction. |
| **2nd Grade: Numbers and Operations in Base Ten:**2.NBT.5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship betweenaddition and subtraction.2.NBT.6. Add up to four two-digit numbers using strategies based on place value and properties of operations. |

Common Core State Standards
Authors: National Governors Association Center for Best Practices, Council of Chief State School Officers
Title: Common Core State Standards (insert specific content area if you are using only one)
Publisher: National Governors Association Center for Best Practices, Council of Chief State School Officers, Washington D.C. - Copyright Date: 2010

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| DesCartes Statements: |  |
| RIT 201-210:* Uses rounding to estimate answers to addition and subtraction problems (whole numbers only)
* Performs mental computation with more than 4 addends
 | **Students:** |
| RIT 191-200* Uses number sense strategies to determine the correct answer for an addition computation
* Uses strategies for sums and differences with 2-digit numbers (e.g., decomposing, compatible, compensation, partial sums, counting on)
 | **Students:** |
| RIT 181-190* Performs mental computation with 2, 3, or 4 addends
* Adds 1-digit to multiple-digit number with regrouping
* Adds two or three 2-digit number with regrouping
* Uses strategies for sums and differences with 2-digit numbers (e.g., decomposing, compatible, compensation, partial sums, counting on)
* Recognizes addition and subtraction fact families through 18
 | **Students:** |
| RIT 171-180* Uses strategies for addition facts (e.g., compatible numbers, counting on, doubles, neighbors, making tens)
* Adds two or three 2-digit number with regrouping
* Adds 1-digit numbers with sums to 18 (with parentheses)
* Recognizes addition and subtraction fact families through 18
 | **Students:** |
| RIT 161-170* Adds two 1-digit numbers with sums to 10 in horizontal format
* Adds two 1-digit numbers with sums between 10 and 19 in horizontal format
* Adds two 1-digit numbers with sums between 10 and 19 in vertical format
* Adds multiple 1-digit numbers
* Uses strategies for addition facts (e.g., compatible numbers, counting on, doubles, neighbors, making tens)
* Adds 2-digit numbers with no regrouping
 | **Students:** |
| RIT Below 161* Adds two 1-digit numbers with sums to 10 in horizontal format
 | **Students:** |

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| Higher-Level Lesson & Activity: (One class period)  | Resources:* Scratch Paper
* Calculators optional
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| -Introduction* Post on board/overhead/screen: A = 1¢, B = 2¢, C = 3¢, etc.
* Ask students:
	+ How much does your first name cost?
	+ Your last name?
	+ Which student do you think has the most expensive name?
	+ The cheapest? Why do you think so?

Challenge Students to Find a Word That Equals Exactly $1* Allow students to work together
* Idea: Brainstorm some words they think may be close to $1. What about this word makes you think it would be that much?
* **Optional:** Offer clues to get them started:
	+ Which day of the week equals $1?
	+ Which zoo animals?
	+ Which musical instrument?
 | Optional: Use as “Time filler” Activity or Anchor Activity * Can be used in 5-10 minute blocks when there is extra time before the bell rings or to start class time with students productively working at their seats
* Provide some limits to better accommodate the small amount of time
* Ideas:
	+ Which of the characters in the story we just read has the most expensive name?
	+ Which of these vocabulary words is the cheapest? Most expensive?
	+ Which school subject?
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| Means of Assessment: * Estimation/Addition accuracy
* Verbal explanation of process
* Use of strategies (observe, listen to student discussions to better understand their thinking)
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| Mid-Level Lesson & Activity: (One class period)  | Resources:* Same as above
 |
| -Introduction (same as above)Challenge Students to Find a Word That Equals Exactly $1* Individually or in partners: Think of an animal that you think has an “expensive” name
* Calculate the cost. Compare with other students’ results. Which was most expensive?
* Repeat with other categories: state names, foods, words from a vocabulary list, book/movie titles, etc.
	+ As students work, look for opportunities to demonstrate mental math strategies
 | Optional: Use as “Time Filler” Activity or Anchor Activity* Same as above (include shorter words that would be appropriately challenging)

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| Means of Assessment: * Same as above
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| Lower-Level Lesson & Activity: (One class period)  | Resources:* Same as above
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| -Introduction (Same as Above)Estimate, then Calculate, which Word is Most expensive* Write two 3-6 letter words on board (ie. Horse/Cow, Cat/Dog, etc.)
* Have students predict which would be most expensive. Discuss with partner.
	+ Then calculate the “cost” of each word to confirm predictions (as a class, with a partner or individually
 | Optional: Use as “Time Filler” Activity or Anchor Activity* Same as above (include shorter words that would be appropriately challenging)
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| Means of Assessment: * Same as above
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**$1 Math**

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| **A = 1¢** | **G = 7¢** | **M = 13¢** | **S = 19¢** | **Y = 25¢** |
| **B = 2¢** | **H = 8¢** | **N = 14¢** | **T = 20¢** | **Z = 26¢** |
| **C = 3¢** | **I = 9¢** | **O = 15¢** | **U = 21¢** |  |
| **D = 4¢** | **J = 10¢** | **P = 16¢** | **V = 22¢** |  |
| **E = 5¢** | **K = 11¢** | **Q = 17¢** | **W = 23¢** |  |
| **F = 6¢** | **L = 12¢** | **R = 18¢** | **X = 24¢** |  |

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| **M** | **A** | **T** | **H** |  |  |  |  |  |  |
| **13 +** | **1 +** | **20 +** | **8 =** | **42** **¢** |  |  |  |  |  |

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| **A** | **D** | **D** | **I** | **T** | **I** | **O** | **N** |  |  |
| **1 +** | **4 +** | **4 +** | **9 +** | **20 +** | **9 +** | **15 +** | **14 =** | **76¢** |  |

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| Some $1 Words |
| **Attitude****Borrowed****Clockwise****Elephants****Drizzle****Fountain** | **Glimpses****Hospital** **Intellect****Jurassic****Keyboards****Lightest** | **Mailboxes****Negotiated****Overboard****Problems****Quarter****Raincoats** | **Scoreboard** **Telephone****Useless****Violins****Wednesday** |