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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 mental  computation 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 between  addition 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 |
| -  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? |
| Means of Assessment:   * Estimation/Addition accuracy * Verbal explanation of process * Use of strategies (observe, listen to student discussions to better understand their thinking) |
| 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) |
| Means of Assessment:   * Same as above |

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| Lower-Level Lesson & Activity:  (One class period) | | Resources:   * Same as above |
| -  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) |
| Means of Assessment:   * Same as above |

**$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** |