

LESSON OVERVIEW:

Higher Level

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.

Mid Level

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.

Lower Level

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.

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

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

DesCartes Statements:

RIT 201-210:**Students:**

- Uses rounding to estimate answers to addition and subtraction problems (whole numbers only)
- Performs mental computation with more than 4 addends

RIT 191-200**Students:**

- 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)

RIT 181-190**Students:**

- 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

RIT 171-180**Students:**

- 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

RIT 161-170**Students:**

- 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

Higher
Level**Higher-Level Lesson & Activity:**
(One class period)

1

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?

2

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?

3

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?

RESOURCES:

- Scratch Paper
- Calculators optional

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**Mid-Level Lesson & Activity:**
(One class period)

1

INTRODUCTION (SAME AS ABOVE)

2

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

3

OPTIONAL: USE AS “TIME FILLER” ACTIVITY OR ANCHOR ACTIVITY

- Same as above (include shorter words that would be appropriately challenging)

RESOURCES:

- Same as above

MEANS OF ASSESSMENT:

- Same as above

Lower
Level**Lower-Level Lesson & Activity:**
(One class period)

1

INTRODUCTION (SAME AS ABOVE)

2

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)

3

OPTIONAL: USE AS “TIME FILLER” ACTIVITY OR ANCHOR ACTIVITY

- Same as above (include shorter words that would be appropriately challenging)

RESOURCES:

- Same as above

MEANS OF ASSESSMENT:

- Same as above

\$1 Math**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¢****M A T H**

$$13 + 1 + 20 + 8 = 42 \text{ ¢}$$

A D D I T I O N

$$1 + 4 + 4 + 9 + 20 + 9 + 15 + 14 = 76 \text{ ¢}$$

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