I can represent numbers using coins

Lesson Plan Title

I can represent numbers using coins

Lesson Summary

Students will be expected to use coins frames to represent numbers.

*Please note that you will be able to change this lesson, by changing the numbers in the word problems.

Background

In grade one students were expected to represent numbers to 20. Students in grade one are not introduced to the concept of coins, this is a grade two concept and begins in Unit 1.

Curriculum Outcomes

N04- Students will be expected to represent and partition numbers to 100
Performance Indicator N04.01- represent a given number using coins (pennies, nickels, dimes and quarters)

Assessment Of Learning or Assessment For Learning

Observation, Conversation, Product

Observations

- Daily checklist- Can students represent a number using coins on their white boards

Conversations

- Can a student answer questions about coins. I have 35 cents I spent ten cents on a pencil, how much money do I now have?
- Can students tell you the value of two coins? I have two nickels and a dime how much money do I have?

Product

- Can students answer word problems using coins?

Communication/Vocabulary

- Pennies
- Nickels
- Dimes
- Quarter
- Coins
- Change
- Money
- Cents

Technology

- I can represent numbers using coins- Key Note Presentation

  http://jkeithgrade2mathns.weebly.com/partitioning.html

- I-pad/Digital Camera to take pictures of work with plastic coins (if necessary)

Materials

- Number Line with coins taped above (see Lesson 3 Math Wall)
- Paper or Plastic Canadian Coins for students
- Coins Word Problem sheet (see below)
- Anecdotal Record sheet (http://jkeithgrade2mathns.weebly.com/general-assessment.html)
- Check List sheet (http://jkeithgrade2mathns.weebly.com/general-assessment.html)

Mental Mathematics

Ask students to solve basic questions involving coins. I have 2 dimes, how much money do I have? I have 5 nickels how much money do I have? I have one quarter and two pennies how much money do I have? (etc.) During this time, you may want to make note of students who do not answer, or who answer with random answers. Ask students to share their strategies of how they solved these problems in their heads.

Development

This lesson is developed to help students solve a wide variety of word problems. As the year progresses you can change the problems to involve higher numbers, or harder.

Time To Teach

Activate prior knowledge by asking students to identify which coin above the number line is a penny, nickel, dime and quarter. Have students complete the mental math activities and then provide them with some oral word problems to solve, either on white boards or orally. These could range from I went to the store and bought 4 pencils for 5 cents each, how much money did I spend? I have 55 cents, do I have enough money to buy two erasers which cost 30 cents each? Etc..

Time to Practice

Once you have provided students with the opportunity to solve some oral problems on a white board hand out the solving word problems sheet. First go through the steps to solving the word problems Explain to the students that they will work on these problems by themselves for 10 minutes before asking for help.

Time to Share

When finished have students share their work in whole group- have them share how they solved the problem and what they did to solve the problem.

Differentiation

- Drawing may be an issue for some students, use plastic coins, or paper coins that they can glue into their journals. If you use the plastic coins they could use an i-pad to take a picture of their work and glue it onto the sheet.
- A guided math group may be necessary for students to solve the problems.
- Quick finishers could be asked to write their own word problems involving coins.

Name: _____

I can solve a word problem involving coins

Mary was shopping at the cafeteria. She had 60 cents. She was buying a milk for 40 cents. How much money does Mary have left?
Jacob bought 2 pencils for 10 cents each, and two erasers for 23 cents each. How much money did Jacob spend?
Lewis has some money. He spent 47 cents on a chocolate bar. Now Lewis has 13 cents. How much money did Lewis have to begin with?

Steps to Solving a Word Problem

1. Read the word problem

2. Read the word problem and underline important information.

3. Think addition or subtraction?

4. Draw a picture or make part-part-whole

5. Write a number expression (adding and subtracting)

6. Write a word sentence answering the question

Canadian Currency (coins 2)