 **Activities for Alexander Who Used to be Rich Last Sunday**

**MATH STANDARDS:**

**4.MD.2**

Use the four operations to solve word problems involving distance, intervals of time, liquid volumes, masses of objects and money, including simple fractions or decimals and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

**4.NF.6**

Use decimal notation for fractions with denominators 10 or 100. For example rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.

**3.MD.3**

Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one and two-step how many more and how many less problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.

**2.MD.2**

Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies using $ and ⊄ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have?

**2.MD.6**

Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0,1,2,…., and represent whole-number sums and differences within 100 on a number line diagram.

**2.MD.10**

Draw a picture graph and a bar graph with single – unit scale to represent a data set with up to four categories. Solve simple put together, take-apart, and compare problems using information present in a bar graph.

**ESSENTIAL QUESTION AND WRITING ACTIVITY:**

* Why is it so hard for Alexander to save his money?
* Why is it hard to save for things we want in the future? Think of Alexander who wanted to save for the walkie-talkie.

**MATHEMATICAL CONCEPTS:**

* Bar Graphs
* Circle Graphs
* Count by 2’s
* Count money
* Number line demonstration
* Decimals and Percent
* Subtraction from 100.

**VOCABULARY:**

* Fine
* Opportunity cost
* Saving
* Services and goods
* Spending
* Renting vs. Owning

**OBJECTIVES:**

Students will be able to:

* Count to 100 by 2
* Create and analyze a bar graph and a circle graph
* Recognize that 100 cents is equal to 1 dollar
* Recognize different coins and their amounts
* Use a blank number line to demonstrate the decomposition of 100.
* Use a hundreds chart to demonstrate the decomposition of 100.

**MATERIALS NEEDED:**

* Cashier Tape
* Hundred Chart
* Chart paper
* Markers
* Meter stick with centimeters
* 100 pennies for students
* Coins
* Scissors
* Tape

**INSTRUCTIONAL ACTIVITIES:**

1. Read the story, *Alexander Who Use to be Rich Last Sunday*.
2. Show students a $1.00 and discuss the change that makes a dollar.
3. Show students the hundreds chart and have them to place 100 pennies on the chart or one hundred counters.
4. Have students to count with you by two’s and move the counter off as they do.
5. Demonstrate and practice counting by two’s. As a whole class and then with partners.
6. Have the students to draw an empty number line using the meter stick to 100 on cashier tape. Then while reading the story have the students to count up how much money he is spending each time and label it.

* Students can take their number line and cut it to make a bar graph from the number line. (use poster paper)

1. Students can then use the information from the number line to fill out the Alexander Spending Bar Graph.

* Question 1: What did Alexander spend most of his money on?
* Question 2: What did Alexander spend the least amount of money on?
* Question 3: How much more did Alexander spend on the garage sale items than he did on the candy bar?
* Question 4: How much did Alexander have to pay for doing things he should not have done? Justify your answer.

1. Students can use beads and count how much money he is spending. Students are given different color beads and they place the beads on a string according to the story. Assorted colors will show what each item he bought. Then will use the bead string and place on a poster board and draw a circle around it and mark for each bead. Then use the information to develop a circle graph. Label the circle graph with decimals and percent. You may also label with items bought.