Brought to you by

Georgia Tech

CSI: MATHEMATICS
Curriculum Support Information
A mathematics resource for parents, teachers, and students

GEORGIA DEPARTMENT OF EDUCATION
Kathy Cox, State Superintendent of Schools

Further investigations:

Make a set of 10 pennies. With your child, count the set of pennies making sure that your child touches and slides each penny across the table as he counts. Repeat with different amounts. As your child makes a set, ask him if that number is closer to five or to ten.

With your child, write the number words zero to ten and numerals 0 – 10 on separate pieces of paper. Match the number word to the numeral. Repeat until all number words are correctly matched to the numerals. You could also use these to play concentration.

Play "Count On." Let your child to choose any numeral from 0-8. Ask your child count beginning from the numeral chosen until he reaches 10. For example, if your child chooses the number 6, he should count 7, 8, 9, 10.

Take turns with your child acting out story problems involving addition using numbers from 0 – 10. Model with coins. For example, Mom has 4 pennies. You have 3 pennies. How many do you have together?

Terminology:

Rote counting: Orally counting in sequential order (0, 1, 2, 3, 4, 5, etc.)

Counting on: Instead of counting from one, counting forward from a given number

Number: A concept used to describe the count, size or position of objects

Numeral: Symbol or mark used to represent a number

Number words: Names of numbers such as, one, two, three

Set: Collection of numbers, geometric figures, or other objects that have some characteristics in common

Equal: Being the same or identical to in value

More: Greater in degree or amount

Less: Not as great in amount

Greater: Larger in amount

Fewer: Smaller in amount

Same: equal in amount of value

Ordinal words: refers to order of items, such as, first, second, third, fourth, fifth, sixth, seventh, eighth, ninth, tenth

Related Files:
www.ceismc.gatech.edu/csi

What are numbers?

Students will:

• Recognize, write, and read numbers and number words from one to ten
• Rote count to 10, count the number of objects up to 10 using a one-to-one correspondence, verbally tell the amount in a set, label the set with a numeral and match number words to a set
• Compare (equal, more than, less than) up to 10
• Understand the concept of time (the days of the week and months of the year)
• Recognize quantities of objects 1 to 10 in terms of benchmark numbers 5 and 10
• Sequence and identify objects using ordinal numbers(1st – 10th)
• Use objects to act out story problems
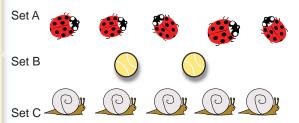• Use the strategy of "counting on" to understand number relationships

Classroom Cases:

1. Count the number of objects below. Write the numeral and number word to label the set.

Case Closed - Evidence: 9 objects. 9, Nine

2. Look at the three sets of objects below.

Set A

Set B

Set C

1. Which set has more objects, Set A or Set B?

2. Which set has fewer objects than Set C?

3. Which sets are equal?

Case Closed - Evidence:
1. Set A   2. Set B   3. Set A and Set C

3. How many crayons do Max and Stacy have together?

Max has 3 crayons.   Stacy has 2 crayons.

Children may use actual crayons to demonstrate touching objects and counting.

Case Closed - Evidence:

Beginning with first crayon and ending with the last one, child should count one, two, three, four, five. Child would say Max has three crayons and Stacy has two crayons. I can count all the objects together. Three crayons and two crayons equal five crayons.

Clues:

Touch and cross out each object when counting a set of objects. If your child had a set of 9 pennies, she needs to touch the first penny, say 1 and slide it across the table to make a new set. Repeat as she counts all the pennies in the first set.

If your child is counting a set of objects on paper, show her how to cross out each object as it is counted.

When children show how to write the numerals 0-9, they will often reverse them. If your child does this, please draw attention to the numeral reversed and model how to write the numeral the correct way.

Book'em:

Two Ways to Count to Ten by Ruby Dee
One..., Two..., Three...Sassafras! by Stuart Murphy
A Three Hat Day by Laura Geringher
Henry the Fourth by Stuart Murphy
Underwater Counting: Even Numbers by Jerry Palotta