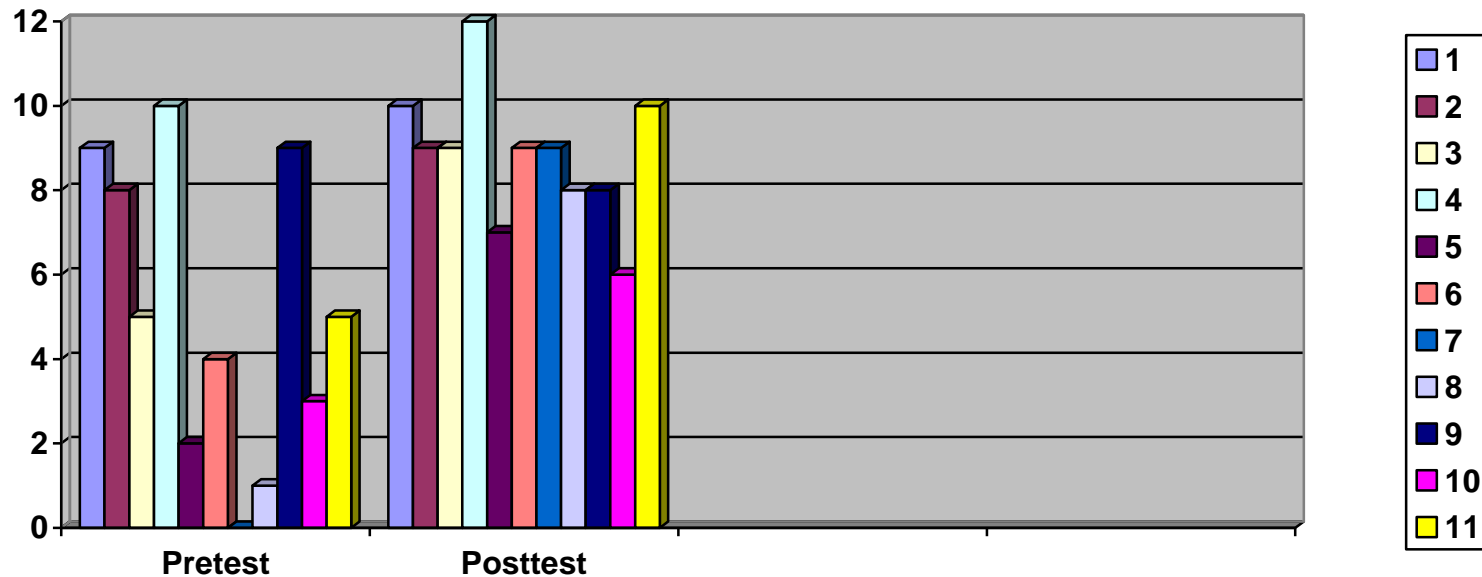


Unit on Number Zero to Five--Kindergarten



As you can see from my graph the students made a lot of progress. Every student except one improved. He only went down by one problem so it was not that bad. The part the students had trouble with is the ordinal numbers. Most of the students did not even think about what number I was saying, they just went right down the line. The student who did go backward with the score has a visual problem so that could have something to do with it. He has been switching back and forth from glasses and contacts. They continue to work on his prescription. I am using the ideas that I learned in the Gecko Math class throughout my math curriculum. I am incorporating the number line, manipulatives, and many hands on activities to enrich my mathematics. I do think that I would change my ordinal position activities to use it more in all the activities. I use the ordinal numbers many times when the students are lining up

or talking about the date. I think that having such a good base for the concept is only helping us learn more about the positions. The module that I create in Gecko Math, will be used each year because it is an excellent way to build solid foundations.

Numbers 0-5 for Kindergarten-1st

By:

Jamie Matheney and Sara Shelden

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Math Module Outline

Title: Number Relationships (Numbers 0-5)

Grade level: Kindergarten-1

Pre-Planning

Rationale for Module

Students need to have the foundation of number relationships to build upon to go further in mathematics. Numbers are a part of students' everyday life and building a firm foundation at the beginning of their education will help the students access their community and world better.

Module Objective:

Students will understand number relationships from 0-5.

Domains in Korean Mathematics:

* Stated on each lesson

National Council for Teacher of Mathematics (NCTM) Standards:

* Stated on each lesson

State Grade Level Expectations:

* Stated on each lesson

Materials/Equipment Needed:

* Stated on each lesson

Module Resources:

Korean Mathematics, Grade 1-1. (2001). Edited by Janice Grow-Maienza. Kirksville, MO: Truman State University. Translated from Ministry of Education, *Arithmetic*, Grades 1-6. Seoul, Korea. National Textbooks Inc, 1993. With permission of the Korean Ministry of Education.

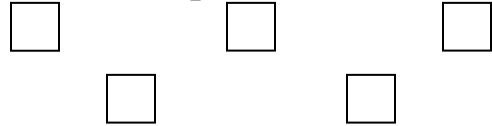
Larson, N. (2001). *Saxon Math K*. Norman, OK: Saxon Publishers, Inc.

Pretest Form A: Numbers 0-5*


* This test will be read orally to the students

Name: _____

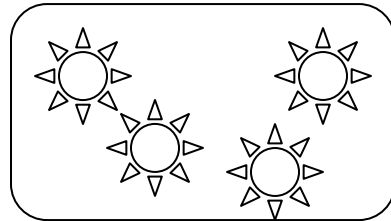
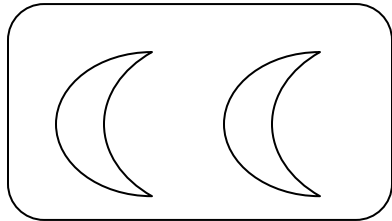
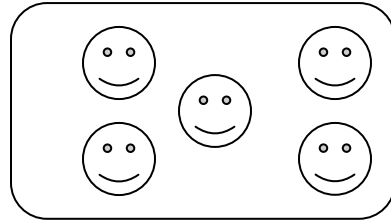
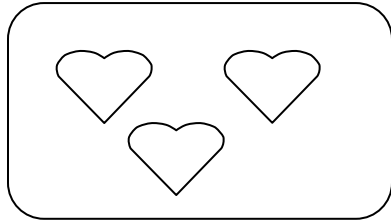
1. Circle 3 squares



2. Write the digit two.

A large empty rectangular box is provided for the student to write the digit 'two'.

3. Color the group that has 5 objects in it.



4. Circle the group of numbers that are in numerical order.

5 3 0 1 4 2

2 1 3 4 5 0

0 1 2 3 4 5

4 0 5 1 3 2

5. Color the apple in 1st place red

Color the apple in 3rd place blue

Color the apple in 4th place yellow

Color the apple in 2nd place orange

Color the apple in 5th place green



6. Place the number of dots in the square that would represent the number 1.

7. Write the digit zero

8. Draw

Objectives:

Students will understand the concept number one.
Students will demonstrate the number one on a number line.
Students will use base ten blocks to show the number one.
Students will correctly write the number one.

Standards:

GLE: Grade Kindergarten

Strand: Number and Operations

1C: use concrete objectives to compose and decompose values up to 10

3B: connect number words (orally) and quantities they represent

Strand: Algebraic Relationships

3A: model situations that involve whole numbers, using pictures, objectives, or symbols

GLE: Grade 1

Strand: Number and Operations

1A: read, write, and compare whole numbers less than 100

NCTM Content Standard: Number and Operations

Korean Mathematics Domain: Numbers

Materials:

Base ten blocks, number cards, counters, whiteboard, number line, number 1 handwriting worksheet

Introduction:

Bring a student to the front of the room. Ask the class how many students are standing in front of the class. Confirm that there is only one student standing. Practice with other materials of one. Ask how they would write the number one. Ask a student to come up and try to write the number. Demonstrate the correct way to write the number one. The teacher could also write the word one if wanted.

Guided Practice:

Possible ways for the students to learn the number-

- Use base 10 cubes to show the number 1
- Number card 1 observe how to make it and skywrite it
- Put the base 10 cubes with the number card
- Use counter to show the number 1

- Practice writing the number 1 on paper/SmartBoard/whiteboard
- Show number 1 on a number line

Independent Practice:

Saxon Math K worksheet Optional Handwriting Master 1 (After Lesson 42) Number 1

Conclusion:

Ask a student to come up and write the number 1. Make sure to check for accuracy in writing the number. Ask the students to show you what one student would look like.

[Lesson 2: Number 2](#)

Objectives:

Students will understand the concept number two.
Students will demonstrate the number two on a number line.
Students will use base ten blocks to show the number two.
Students will correctly write the number two.

Standards:

GLE: Grade Kindergarten

Strand: Number and Operations

1C: use concrete objectives to compose and decompose values up to 10

3B: connect number words (orally) and quantities they represent

Strand: Algebraic Relationships

3A: model situations that involve whole numbers, using pictures, objectives, or symbols

GLE: Grade 1

Strand: Number and Operations

1A: read, write, and compare whole numbers less than 100

NCTM Content Standard: Number and Operations

Korean Mathematics Domain: Numbers

Materials:

Base ten blocks, number cards, counters, whiteboard, number line, number two handwriting worksheet

Introduction:

Bring two students to the front of the room. Ask the class how many students are standing in front of the class. Confirm that there are only two students standing. Practice with other materials of two. Ask how would you write two. Ask a student to come up and try to write the number. Demonstrate the correct way to write the number two. The teacher could also write the word two if wanted.

Guided Practice:

Possible ways for the students to learn the number-

- Use base 10 cubes to show the number 2
- Number card 2 observe how to make it and skywrite it
- Put the base 10 cubes with the number card
- Use counter to show the number 2
- Practice writing the number 2 on paper/SmartBoard/whiteboard
- Show number 2 on a number line

Independent Practice:

Students will put numbers in order using their number cards.

Conclusion:

Ask a student to come up and write the number 1. Make sure to check for accuracy in writing the number. Ask the students to show you what one student would look like.

[Lesson 3: Number 3](#)

Objectives:

Students will understand the concept number three.

Students will demonstrate the number three on a number line.

Students will use base ten blocks to show the number three.

Students will correctly write the number three.

Standards:

GLE: Grade Kindergarten

Strand: Number and Operations

1C: use concrete objectives to compose and decompose values up to 10

3B: connect number words (orally) and quantities they represent

Strand: Algebraic Relationships

3A: model situations that involve whole numbers, using pictures, objectives, or symbols

GLE: Grade 1

Strand: Number and Operations

1A: read, write, and compare whole numbers less than 100

NCTM Content Standard: Number and Operations

Korean Mathematics Domain: Numbers

Materials:

Base ten blocks, number cards, counters, whiteboard, number line, number three handwriting worksheet

Introduction:

Bring three students to the front of the room. Ask the class how many students are standing in front of the class. Confirm that there are only three students standing. Practice with other materials of three. Ask how would you write three. Ask a student to come up and try to write the number. Demonstrate the correct way to write the number three. The teacher could also write the word three if wanted.

Guided Practice:

Possible ways for the students to learn the number-

- Use base 10 cubes to show the number 3
- Number card 3 observe how to make it and skywrite it
- Put the base 10 cubes with the number card
- Use counter to show the number 3
- Practice writing the number 3 on paper/SmartBoard/whiteboard
- Show number 3 on a number line

Independent Practice:

Students will put numbers in order using their number cards.

Conclusion:

Ask a student to come up and write the number 1. Make sure to check for accuracy in writing the number. Ask the students to show you what one student would look like.

[Lesson 4: Number 4](#)

Objectives:

Students will understand the concept number four.

Students will demonstrate the number four on a number line.

Students will use base ten blocks to show the number four.

Students will correctly write the number four.

Standards:

GLE: Grade Kindergarten

Strand: Number and Operations

1C: use concrete objectives to compose and decompose values up to 10

3B: connect number words (orally) and quantities they represent

Strand: Algebraic Relationships

3A: model situations that involve whole numbers, using pictures, objectives, or symbols

GLE: Grade 1

Strand: Number and Operations

1A: read, write, and compare whole numbers less than 100

NCTM Content Standard: Number and Operations

Korean Mathematics Domain: Numbers

Materials:

Base ten blocks, number cards, counters, whiteboard, number line, number four handwriting worksheet

Introduction:

Bring four students to the front of the room. Ask the class how many students are standing in front of the class. Confirm that there are only four students standing. Practice with other materials of four. Ask how would you write four. Ask a student to come up and try to write the number. Demonstrate the correct way to write the number four. The teacher could also write the word four if wanted.

Guided Practice:

Possible ways for the students to learn the number-

- Use base 10 cubes to show the number 4
- Number card 4 observe how to make it and skywrite it
- Put the base 10 cubes with the number card
- Use counter to show the number 4
- Practice writing the number 4 on paper/SmartBoard/whiteboard
- Show number 4 on a number line

Independent Practice:

Students will put numbers in order using their number cards.

Conclusion:

Ask a student to come up and write the number 1. Make sure to check for accuracy in writing the number. Ask the students to show you what one student would look like.

[Lesson 5: Number 5](#)

Objectives:

Students will understand the concept number five.

Students will demonstrate the number five on a number line.

Students will use base ten blocks to show the number five.

Students will correctly write the number five.

Standards:

GLE: Grade Kindergarten

Strand: Number and Operations

1C: use concrete objectives to compose and decompose values up to 10

3B: connect number words (orally) and quantities they represent

Strand: Algebraic Relationships

3A: model situations that involve whole numbers, using pictures, objectives, or symbols

GLE: Grade 1

Strand: Number and Operations

1A: read, write, and compare whole numbers less than 100

NCTM Content Standard: Number and Operations

Korean Mathematics Domain: Numbers

Materials:

Base ten blocks, number cards, counters, whiteboard, number line, number five handwriting worksheet

Introduction:

Bring five students to the front of the room. Ask the class how many students are standing in front of the class. Confirm that there are only five students standing. Practice with other materials of five. Ask how would you write five. Ask a student to come up and try to write the number. Demonstrate the correct way to write the number five. The teacher could also write the word five if wanted.

Guided Practice:

Possible ways for the students to learn the number-

- Use base 10 cubes to show the number 5
- Number card 5 observe how to make it and skywrite it
- Put the base 10 cubes with the number card
- Use counter to show the number 5
- Practice writing the number 5 on paper/SmartBoard/whiteboard
- Show number 5 on a number line

Independent Practice:

Students will put numbers in order using their number cards.

Conclusion:

Ask a student to come up and write the number 1. Make sure to check for accuracy in writing the number. Ask the students to show you what one student would look like.

Lesson 6: Ordinal Numbers

Objectives:

Students will understand the concept of ordinal numbers to fifth place.

Students will demonstrate putting objects in an ordinal position.

Students will use teddy bear counters to show 1st through 5th place.

Standards:

GLE: Grade Kindergarten

Strand: Number and Operations

1C: use concrete objectives to compose and decompose values up to 10

3B: connect number words (orally) and quantities they represent

Strand: Algebraic Relationships

3A: model situations that involve whole numbers, using pictures, objectives, or symbols

GLE: Grade 1

Strand: Number and Operations

1A: read, write, and compare whole numbers less than 100

NCTM Content Standard: Number and Operations

Korean Mathematics Domain: Numbers

Materials:

Teddy Bear Counters, ordinal number cards, whiteboard, number line

Introduction:

All of the students will go outside or to the gym to run a race. There will only be up to five students in each race. They rank themselves in order depending on where they finished the race. First place will hold up a card that says first and so on until they get

each student's place. The students will race in groups of five until everyone has gone. Then all the first place students stand with the 1st card, the second place students' stand with the 2nd card and so on.

Guided Practice:

Possible ways for the students to learn the number-

- Use teddy bear counters each student will have 5 different colors and they will put them in order according to what the teacher says (red teddy bear first, etc)
- Play a game of Simon Says-the students are in lines of five. The teacher is Simon and says the 1st person in line hold up your hands; 2nd person touch the floor; 3rd person put hands on shoulders; 4th person touch your knees; 5th person touch your nose.
- Let a student be Simon and they can make up their own actions. Just monitor that the students are doing what they need to in each place.
- Put a number line on the smart board with different objects to be put in order according to the teacher's directions. Put the star in first place on the number line.

Independent Practice:

Students will put the ordinal numbers in order using the number cards. The students can work together in groups and check each other's work. The students can then do the ordinal position worksheet from the Saxon Math books.

Conclusion:

Call on the students to get in order when lining up for the next activity. John line up in first place, Jan line up in second place, etc.

Lesson 7: Number 0

Objectives:

Students will understand the concept of zero.

Students will demonstrate what zero of something looks like.

Students will show zero on a number line.

Standards:

GLE: Grade Kindergarten

Strand: Number and Operations

1C: use concrete objectives to compose and decompose values up to 10

3B: connect number words (orally) and quantities they represent

Strand: Algebraic Relationships

3A: model situations that involve whole numbers, using pictures, objectives, or symbols

GLE: Grade 1

Strand: Number and Operations

1A: read, write, and compare whole numbers less than 100

NCTM Content Standard: Number and Operations

Korean Mathematics Domain: Numbers

Materials:

Teddy Bear Counters, number cards 0-5, whiteboard, number line, bags of varying numbers of candy from 0-5 pieces

Introduction:

Review all the numbers what have been introduced up to now 1-5. Then ask the students if they know what number comes before 1. Talk about what it means to have zero or nothing of something. Ask how you would write zero. Ask a student to come up and try to write the number. Demonstrate the correct way to write zero. The teacher could also write the word zero if wanted.

Guided Practice:

Possible ways for the students to learn the number-

- Review exploring numbers 1, 2, 3, 4 and 5
- Use base 10 cubes to show the number 0
- Number card 0 observe how to make it and skywrite it put the numbers in order
- Put the base 10 cubes with the number cards
- Use counter to show the number 0
- Practice writing the number 0, 1, 2, 3, 4 and 5 on paper/SmartBoard/whiteboard
- Show number 0 on a number line
- Give paper bags of candy with varying pieces of candy in them 0-5
 - Put the pieces on the floor have the students get in order based on the number of candies they have (which number do we start with?)

Independent Practice:

Students will put the numbers in order using the number cards. The students can work together in groups and check each others work. The students can then do the zero worksheet from the Saxon Math books, so that they can practice writing zero.

Conclusion:

Ask a student to come up and write the number 5. Make sure to check for accuracy in writing the number. Ask the students to show you what one student would look like. Review that even though we start with one to count there is zero which is less than one. Would they like one piece of candy or zero?

Lesson 8: Number Book

Objectives:

Students will understand the concept of numbers zero to five.

Students will attempt to write the numbers zero to five (in letter form).

Students will correctly write the numbers zero to five (in number form).

Students will draw a picture to represent the individual numbers zero to five.

Students will place dots on a die representing the individual numbers zero to five.

Standards:

GLE: Grade Kindergarten

Strand: Number and Operations

1C: use concrete objectives to compose and decompose values up to 10

3B: connect number words (orally) and quantities they represent

Strand: Algebraic Relationships

3A: model situations that involve whole numbers, using pictures, objectives, or symbols

GLE: Grade 1

Strand: Number and Operations

1A: read, write, and compare whole numbers less than 100

NCTM Content Standard: Number and Operations

Korean Mathematics Domain: Numbers

Materials:

Computer paper, crayons, pencils, stapler

Introduction:

Today the students will make a book about the numbers zero to five. Quickly review each of the numbers by writing them on the board and having the students put them in the correct numerical order. Tell the students that they are going to make a book about the numbers they have learned the past couple of weeks. Make sure to tell them the few requirements that the book must have. The book must have the number written in number form, an attempt of the number written in letter form, a picture representing the number, and dots placed on a square (dice) to represent the number.

Guided Practice:

To begin this lesson it may be important to do the first couple of numbers together as a group so that the students place all of the information needed on each page.

Independent Practice:

The students will work on the book independently after they know exactly what should go on each page with each number.

Conclusion:

After the students have completed their books ask a few volunteers to share about their books. Review again the numbers zero to five and have the students' finger write in the air each number as you count them.

[Lesson 9: Number Centers*](#)

* This lesson may take two days if needed

Objectives:

Students will understand the concept of numbers zero to five.

Students will count objects to a prescribed number.

Students will form the numbers using playdough.

Students will sequence number cards on a pocket chart.

Students will practice number writing on different mediums.

Standards:

GLE: Grade Kindergarten

Strand: Number and Operations

1C: use concrete objectives to compose and decompose values up to 10

3B: connect number words (orally) and quantities they represent

Strand: Algebraic Relationships

3A: model situations that involve whole numbers, using pictures, objectives, or symbols

GLE: Grade 1

Strand: Number and Operations

1A: read, write, and compare whole numbers less than 100

NCTM Content Standard: Number and Operations

Korean Mathematics Domain: Numbers

Materials:

Egg carton, countable objects (small), playdough, spinner, pocket chart, number cards, chalkboard, chalk, dry erase board, marker, paper, and pencil

Introduction:

Today the students will be going through different center activities that all involve the different numbers they have just learned. Each of the centers will need to be explained before the students go to them (See guided practice for instructions). Before going to the centers ask a few volunteers to write on a board the different numbers they have learned so far. Have the students draw or write different representations of the numbers. Divide the students into groups and send to the centers.

Guided Practice:

Centers-

1. Counting: Cut an egg carton in half and write numbers in the bottom of each of the holes. Students will use small manipulative to count how many pieces should go in each of the holes.
2. Playdough: Students will spin a spinner that has the numbers that they have learned on it. Which ever number the spinner lands on the students have to form their playdough into the shape of the number.
3. Pocket Chart: Students will be given a set of number cards. They will have to place the numbers in order from smallest to greatest on the pocket chart.

4. Writing Center: Students will have a variety of surfaces and tools in which to practice writing the different numbers. You can use a spinner again for this center or have cards in which the students draw from a stack and have to write.

Independent Practice:

The students will work in their different centers. The students may work with friends but they must try all activities on their own before asking for help on how to do any of the centers.

Conclusion:

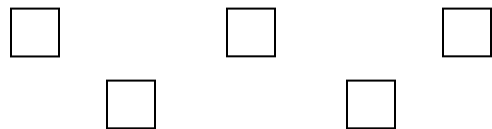
After the all the students have gone through all the centers have a discussion time about the centers. Ask the students what they like and disliked and what they learned. Review over the numbers and sequencing of numbers. Tell the students that they will be having a test tomorrow to finish up their unit on numbers zero to five.

Posttest Form B: Numbers 0-5*

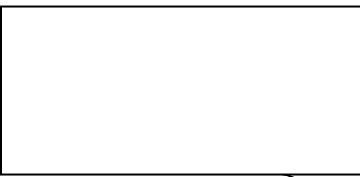
* This test will be read orally to the students

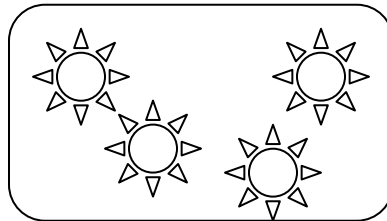
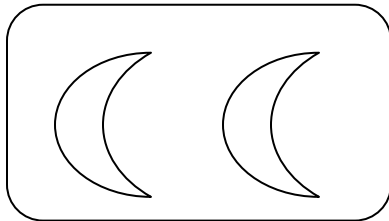
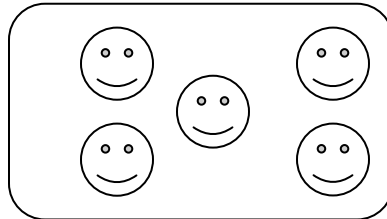
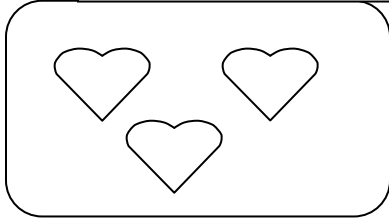
Name: _____

1. Circle 5 squares



2. Write the digit four.

3. Circle  as 3 objects in it.



4. Circle the group of numbers that are in numerical order.

5 3 0 1 4 2

2 1 3 4 5 0

0 1 2 3 4 5

4 0 5 1 3 2

5. Color the apple in 1st place green
Color the apple in 3rd place red

