Rigor

Task Handout, Kindergarten
Conceptual Understanding Task #1

Action:

- This task should be done as a whole group.
- The teacher will show the class two groups of objects or drawings of objects.

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6
9
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- The class will chorally count the two groups and the teacher or a student can record the number below the group.
- The teacher will then ask the class to chorally say which number is greater and which number is less.
- The teacher will then instruct students to turn to their talking partner and tell them how they know which number is greater or less than the other number. It can be helpful if students have preassigned "talking partners." This is not necessary, but will make the lesson go more smoothly as students will quickly know who they should turn and talk with.

Conceptual Understanding Task #2

Materials

- One 10-frame per pair of students (see example below)

- Counters, 10 per pair of students
- Decks of number cards 0-5 (with 4 of each number) or two 0-5 dice

Setup

This activity is done in pairs. The students sit side by side with 10-frame and deck of cards or dice. If they have cards, the cards are shuffled and placed face down in front of them.

Action

- **Player 1** Flips a card or rolls the die. They place that many counters on the 10-frame.
- **Player 2** flips a card or rolls the die. They place that many more counters on the 10-frame next to the counters already on the ten frame.
- The students count the total together.
- A recording sheet can be added when the students have been introduced to equations and number sentences. For those students who can handle higher numbers, a deck of 0-10 cards and two 10-frames can be used.

This game can also be played alone.

Conceptual Understanding Task #3

**Materials**
For each student:
- 5 two-color counters (e.g., red on one side and yellow on the other)
- Cup (optional)

**Action**
- The students put the counters in the cup, shake it, and spill them onto the table. Alternatively, they can use their hands.
- The students determine how many of each color is showing and record the sum using drawings or equations.
- The students should "shake and spill" several times to show different pairs of numbers that sum to 5.

Procedural Skills and Fluency Task #1

The teacher will need a 100 chart or large number line and a pointer.

As a whole group, have students chant the counting sequence starting with one to thirty, using the pointer to follow the number sequence. Over time, increase the range to one to fifty and then one to one hundred. Eventually have a student take over the job of pointing out the numbers in the sequence. Highlight the multiples of ten using a marker or a colored screen and have students chant the counting sequence by 10s. This should be done daily.

Procedural Skills and Fluency Task #2

Each student will need a different Number After Game Board (a 5x5 grid with numbers from 2 through 15 randomly arranged, one in each square), 15 each of two different color counting chips and a set of 2-3 each of number cards with the numbers 1 through 15 on them.

![Number AFTER Bingo 1-15](image)

Begin whole group by discussing what "number after" means. Next have the students identify and point out on a large number line the number after various numbers selected by the teacher. Initially keep these numbers in the range of 1-15. After the group seems to have an understanding of what "number after" means and how to locate them on the number line, have students play Number After bingo on the 5x5 bingo board in pairs. Students will take turns drawing a number card, stating the number after and placing his/her counter on that number on the game board. The first student with 3 counters in a row on the grid is the winner. As students progress the practice range should be increased by changing the numbers on the grid and the corresponding numbers on the cards.

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Procedural Skills and Fluency Task #3

**Materials**

- Assorted objects to create the groups
- Clear ziplock bags or small cups
- Index cards and stickers
- An egg timer or a kitchen timer

**Action**

The teacher will assemble a variety of groups of objects in a few different forms. For example, the teacher might put together:

- an index card with 5 stickers
- a clear ziplock bag with 7 beans
- a cup filled with 4 pennies
- an index card with a 4 smiley faces drawn onto it
- a clear ziplock bag with 4 unifix cubes inside
- 5 crayons held together by a rubber band
- a picture of 7 fingers
- 5 small toy animals in a clear ziplock bag
- 7 erasers in a small cup
- a group of 4 pencils held together by a rubber band

The teacher will give students a timer, and the students will race against the clock to sort the groups of objects into three separate groups (grouped by quantity) by the time the timer is finished. This can be played individually or in pairs.

Application Task #1

Materials: (S) Personal white board, 6 linking cubes

4 silly seals were splashing in the water. Show the silly seals with your linking cubes. 2 more silly seals came to splash. Show the new seals. How many silly seals are splashing in the water now?

Use your cubes, and talk to your partner about the seals. Can you write about the silly seals in a number bond?
Application Task #2

This task is meant to be presented as a sequence of questions posed by the teacher to the students.

Christina has 7 candies. Some of them are chocolate, and some of them are lemon.

If she has one chocolate candy, how many lemon candies does she have if the rest are lemon?  
If she has two chocolate candies, how many lemon candies does she have if the rest are lemon?  
If she has 3, (4, 5, 6) chocolate candies, how many lemon candies does she have if the rest are lemon?

Once a student finds one answer, ask him/her to find another. Ask the student to use objects, pictures, or equations to demonstrate his/her thinking. Not all pairs that total 7 are required to meet this standard, but students must include more than one.

Application Task #3

Materials: (S) Personal white board

Marissa is creating designs with shapes. She has 5 triangles and 2 circles. Draw the shapes, and write a number sentence. Talk to your partner about your picture and number sentence.