

Instructional Plan
Representational/Picture Drawing Level

Name of Math Skill/Concept: Comparing two groups (more than, less than, same) using representations (pictures/drawings) of concrete objects.

Prerequisite Skills Needed:

- One to one correspondence.
- Although counting is not a necessary skill to be able to match items one to one, these teaching plans do contain several counting activities. If a student cannot count items up to 10, it is recommended that the teacher provide additional scaffolding during these activities.

Learning Objectives:

1. I identify if a given group of concrete objects has more than, less than, or the same number when compared to a group of representations of concrete objects.
2. I identify if a given group of representations of objects has more than, less than, or the same number when compared to another group of representations.
3. Create a group with more than, less than, or the same number of representations as a given group of representations.

Important Ideas for Implementing This Teaching Plan:

1. Explicitly link concrete objects to their representations.
2. Teach students an easy way to draw representations of concrete objects (e.g. crayon dots).
3. Color code similar characteristics of numerals (e.g. straight lines of 1, 4, 7) .
4. Point out distinguishing characteristics between numerals (flat head seven, skinny one).
5. Model estimation
6. Reinforce moving from left to right when comparing groups
7. Associate more, less and same with drawings of groups

Instructional Phase 1: Initial Acquisition of Skill/Concept – Teacher Directed Instruction

Teach Skill/Concept within Authentic Context

Description: In this lesson toys and items from manipulative tubs are used since children are familiar with toys and the manipulative tubs and are familiar with looking at pictures of their toys in books and catalogs.

Build Meaningful Student Connections

Purpose: to assist students to build meaningful connections between what they have experienced using toys and other concrete objects to identify can make groups that show more than, less than, and same, and using drawings and pictures to represent the concept.

* The following description is an example of how you might implement this instructional strategy for Learning Objective 1. A similar process can be used for the other learning objectives in this plan.

Learning Objective 1: I identify if a given group of concrete objects has more than, less than, or the same number of objects when compared to a group of representations of concrete objects

Materials:

Teacher –

- Counting Blocks,
- Picture of train of counting blocks
- Counting links,
- Picture of pattern of links
- Models of cookies used in concrete lesson,

Description:

1.) Link to students' prior knowledge of sharing and comparing groups of toys.

- Provide visual examples of the cookies or other concrete items used to make groups in the previous lesson.

For Example:

As we play with toys at home or here at school, we sometimes need to decide how many we need. If we are building a long train with blocks, our train might need more blocks (show a picture of a train and, demonstrate adding more blocks to a train to make it longer than the picture). If you are making a chain of links, you might choose less of one color than another to create a pattern (show links and picture of pattern made from links, demonstrate adding less of one color). We often compare two groups, just like we compared the cookies that Lucy and Marcus had. (Show display from concrete lesson.) At first, Marcus had less cookies than Lucy, then Marcus had more cookies than Lucy, and finally Marcus had the same number of cookies as Lucy.

2.) Identify the skill students will learn: Use pictures, stamps, and drawings to compare groups.

For Example:

Today we will learn to make groups that show more than, less than, and the same by using drawings and pictures.

3.) Provide rationale/meaning for

For Example:

When we make groups that show more, less, or the same it can help us when we make patterns, when we count,

Provide Explicit Teacher Modeling

Purpose: to provide students a clear teacher model of how to use drawings, pictures, and other representations of concrete objects to identify and make groups that show the same as, less than or more than a given group.

Learning Objective 1: Identify if a given group of objects has more than, less than, or the same number when compared to a group of representations of objects.

Materials:

Teacher –

- Objects (blocks, balls, counting bears, stuffed animals, trucks, cookie models),
- Pictures, drawings and stamps of objects,
- Crayons/markers for dots and tally marks,
- White board or other board to display groups and write on

Description:

A. Break down the skill of **identifying if a given group of objects has more than, less than, or the same number when compared to a group of representations of objects.**

- 1.) Count items in both groups using tally marks.
- 2.) Match the items in first group to the items in second group .
- 3.) Count and check using tally marks.

B. **Explicitly describe and model how to identify if a given group of objects has more than, less than, or the same number when compared to a group of representations of objects.**

1.) Count the total number of items in both groups using tally marks.

- Explicitly link the previous lesson to this lesson by displaying groups of objects used in concrete lesson.
- Label groups verbally and visually with the words *more, less, and same*
- Cue students to differences in groups by using color coding
- Demonstrate how to count using tally marks
 - Divide a white board or other visual display in half.

- Show a group of objects and a group of corresponding pictures (e.g. blocks, balls, links, stuffed animals, trucks)
- Initially, each group should be lined up in a vertical row.
- As each item is counted, put a tally mark on the display board under the appropriate column.
- Use a different color to make the tally marks for each group.

For Example:

Today we are going to start using pictures to compare groups of items. We've compared groups of cookies to see which group had more cookies, less cookies or if the two groups had the same number of cookies (point to visual display of cookies from concrete lesson). We've also compared groups of blocks and groups of bears. (Point to displays comparing groups of bears and blocks – label each group with words – more, less, same.) Which group has more bears? Which group has less bears? Which group has more blocks? Which group has less blocks? Which group has the same number of blocks? (After each question, elicit student responses, and point to each display of bears and blocks.) Just like we compared these groups, we are going to compare some more groups but this time we are going to compare our groups of objects to groups of pictures. Let's look at these two groups. I have a group of blocks here and a group of pictures of blocks here. Hmm. – I wonder which one do you think has more in it? – The blocks here or this group of pictures? Well, let's find out. The first thing we need to do is to count the number of items we have in each group. Each time we touch and count a block, I am going to put a tally mark under the block. (Cue students to column). Help me count our blocks. (1,2...8) 8. I have 8 blocks and look I made a tally mark every time we touched and counted a block. Now we are going to do the same thing with our group of pictures. Each time we touch and count a picture, I am going to put a tally mark under the picture. (Cue students to column). Help me count our pictures. (1,2,3) 3. I have 3 pictures and I made a tally mark each time we touched and counted a picture.

2.) Match the items in first group to the items in second group by drawing lines and/or marking out each matched pair and decide if the second group has more than, less than, or the same number of items as the given group.

- Model how to match items in groups.
- Prompt student responses by drawing lines between matches

For Example:

Now that we've counted each group, I want to see how many one to one matches we have. I am going to draw lines between each block that I can match with a picture. I have one block here and I'll match it with this picture. And one here to match, and one here to match... Have I matched all my blocks and pictures? I still have some blocks left over, but I don't have any more pictures to match. I've made all the matches I can. Which group do you think has more? I think you are right! I think we have more blocks than pictures because I have blocks that were not matched with pictures. This group has more.

3.) Count and check using tally marks.

- Demonstrate how to count tally marks and write numbers
- Cue students to distinguishing features of numbers (e.g. flat head 7)
- Provide visual prompt to number in each group by color coding number in box/circle

For Example:

Which group did we think has more? The blocks. Let's count the tally marks and check. Help me count the tally marks that we put here for the blocks (1,2..8) 8. We have 8 blocks. I am going to put the number 8 in this circle right here. Now let's count the tally marks for the pictures. (1,2,3) 3. We have 3 pictures. I am going to put the number 3 in this box. We have 8 blocks and 3 pictures. We have more blocks than pictures. Which group has less? [Elicit student response] That's right! This group [Cue students]. We have 3 pictures and 8 blocks, we have less pictures.

4.) Continue this activity using groups that show less and equal numbers of items, with various objects and pictures.

Learning Objective 2: Identify if a given group of representations has more than, less than, or the same number when compared to another group of representations of objects.

Materials:

Teacher –

- Pictures, drawings and/or stamps of trucks and blocks (or other toys)
- Crayons/markers for dots and tally marks,
- White board

Description:

A. Break down the skill of **identifying if a given group of representations has more than, less than, or the same number when compared to another group of representations of objects.**

- 1.) Count items in both groups using tally marks.
- 2.) Match the items in first group to the items in second group .
- 3.) Count and check using tally marks.

B. **Explicitly describe and model how to identify if a given group of representations has more than, less than, or the same number when compared to another group of representations of objects.**

* Follow the same process (steps 1-3) as described for Learning Objective 1, "**identify if a given group of objects has more than, less than, or the same number when compared to a group of representations of objects**" using two groups of representations of objects (drawings, pictures, crayon dots).

Key Ideas:

1. Before modeling how to identify groups that have more than, less than or the same number as a given group of representations of objects, it may be necessary to explicitly model how to represent an object with a picture, stamp, or crayon dot.

- Arrange a group of objects
- Take away each object and put a picture in its place
- Follow a similar sequence by substituting a stamp or drawing for each object, and finally representing each object with a crayon dot.

For Example:

We've been comparing groups of objects like these trucks with pictures. But maybe we don't want to use any objects. We want to use pictures or drawings in place of objects. Maybe I want to compare this group of trucks with this group of blocks. Instead of using the trucks and blocks, what could I use to represent them? (Elicit student responses that pictures or drawings could be used). Right! I can use pictures or drawings of them. Let's see, instead of having this truck here, I am going to put this picture on this piece of paper. (Continue to do this with several of the trucks.) Now if I don't have pictures or I don't want to use pictures, I wonder what else we have that I could use? Right I could use stamps. So instead of this block, I am going to put a stamp on the piece of paper, and instead of this block, I am going to put this stamp. (Continue to do this with several more of the blocks.) Well, we have used pictures and we have used stamps, but we can also draw to represent the trucks and blocks. This time, each time I take an object away, I am going to put a dot on the paper. (Continue to do this with remaining objects.)

2. Use think alouds and questions to emphasize using estimation prior to answering the problem

For Example:

I have two groups on the board. What is this group? (Elicit student responses) Right, pictures of trucks are on this side. What is in this group? (Elicit student responses) You are right again. There are drawings of balls on this side. I want to see if I have more balls, less balls or the same number of balls as I do trucks. What do you think? How many of you think we have more balls? How many of you think we have less balls? How many of you think we have the same number of balls as we do trucks? Hmm. it looks to me that my group of trucks is bigger. Let's find out. The first thing we are going to do is to count and tally the items in both groups. Help me count how many trucks we have. We have (1,2,3,4,5,6,9, 10) 10 trucks. Each time I touched a picture of a truck and counted, I made a tally mark here. Now help me count and tally how many balls we have in this group. Each time I touch a drawing of a ball and count, I am going to make a tally mark here. (1,2,3,4,5,6) 6. We have 6 balls in this group. Well, I think that 10 trucks are more than 6 balls, but I am going to check myself by matching.

3.) Cue students to matches between the items in first group and the items in second group by drawing lines and/or marking out each matched pair. Use think alouds to model how to decide if the second group has more than, less than, or the same number of items as the given group.

For Example:

Now that we've counted each group, I want to see how many one to one matches we have. I am going to draw lines between each picture of a truck that I can match with a drawing of a ball. I have one picture of a truck here (point to top picture) and I'll match it with this drawing of a ball (point to top drawing). And one here to match, and one here to match... Have I matched all my trucks and balls? I still have some pictures of trucks left over, but I don't have any more drawings of balls to match. I've made all the matches I can. Which group do you think has more? I think you are right! I think we have more trucks than balls. I have trucks that were not matched with balls. This group of trucks has more

4. Model how to count and check using tally marks.

For Example:

Which group did we think has more? The trucks. Let's count the tally marks and check. Help me count the tally marks that we put here for the trucks (1,2..10) 10. We have 10 trucks. I am going to put the number 10 in this circle right here. Now let's count the tally marks for the balls. (1,2..6) 6. We have 6 balls. I am going to put the number 6 in this box. We have 10 trucks and 6 balls. We have more trucks than balls. . I am going to put the word MORE next to the group of trucks because I have more trucks than I do balls. Which group has more? You're on target today! This group, we have more trucks. Which group has less? [Elicit student response] That's right! This group [Cue students]. We have 6 balls and 10 trucks. We have less balls.

5.) After repeating the above activity several more times using stamps and pictures, continue to model using different arrangements (circular, scattered) to show students how to mark out items as opposed to drawing lines when they match them.

6.) Move from comparing groups of unlike items (e.g. pictures and drawings, pictures and stamps, stamps and crayon dots) to comparing groups of like items (stamps and stamps, dots and dots).

7.) Cue students to the two different groups of items by using color coding (red stamps and blue dots, yellow dots and green dots).

8.) Continue to emphasize labeling the groups using with the words *more, less, same*.

Learning Objective 3: Create a group with more than, less than, or the same number of representations as a given group of representations.

Materials:

Teacher –

- Pictures, drawings, or stamps of cookies
- Crayons/markers for dots and tally marks,
- White board or other visual display

Description:

A. Break down the skill of creating a group with more than, less than, or the same number of representations as a given group of representations.

- 1.) Count items in first group.
- 2.) Make a second group.
- 3.) Count items in both groups.

B. Explicitly describe and model how to create a group with more than, less than, or the same number of representations of items as a given group of representations of items.

1.) Count the items in the first group using tally marks.

- Link lesson with previous concrete lesson by labeling and showing groups of more than, less than and same cookies or other objects.
- Use color coding to cue students to differences in groups
- Prompt student responses when making and counting first group
 - Divide the white board or other visual display in half.
 - Display a group of pictures or stamps in one section, leaving the other section blank.
 - Initially, have the group lined up in a vertical or horizontal row and line up the second group that is made with the first group.
 - As each item in the first group is counted, put a tally mark at the bottom of the white board.

For Example:

We've been looking at all sorts of groups. Some of our groups have more, some have less, and some have the same number. Which of these groups of dots has more? Which has less? Which has the same? (Point to displays comparing groups of different colored dots as you elicit student responses to each question.)

Remember when Lucy wanted to make a group of cookies for Marcus that had the same number of cookies as her group? (Point to visual display of cookies from concrete level lesson). We also figured out how we could make a group of cookies for Marcus that had more cookies than Lucy's group of cookies, (point to display from concrete level lesson) and we made a group of cookies for Marcus that had less cookies than Lucy's group of cookies (point to display from concrete level lesson). We can also use drawings to figure out how to make groups that have more than or less than or the same number of items as another group. Let's see how we could make Marcus a group of cookies that has more cookies than Lucy. We are going to make Marcus' group of

cookies in this column under this word, MORE. The first thing we want to do is count the first group. Here is Lucy's group of chocolate cookies (show display of cookie stamps). Let's count how many cookies Lucy has. I am going to point and count. Each time I count, I am going to make a tally mark here at the bottom of my page. Lucy has (1,2,3...6) 6 cookies. I made a tally mark each time I touched and counted one of Lucy's cookies. Let's count how many marks I made. I made (1,2,3..6) 6 marks, so I know that Lucy's group has 6 cookies in it. I am going to put a 6 in this circle.

2.) Make a second group with more items than are in the first group.

- Model how to make a second group.
 - As each item in the second group is made, put a tally mark under a tally mark for the first group.
 - Use a different color to make the tally marks for the second group.
- Prompt student responses when making second group.
- Label groups verbally and visually with the words *more, less, and same*

For Example:

Now, we want to make a group of sugar cookies for Marcus that has more cookies than Lucy's cookies. Where do we want to make Marcus' group of cookies? Right, under this word - MORE - that helps us remember that we want to make Marcus have more cookies than Lucy. Who remembers how many cookies Lucy has? [Elicit student response] You are sharp today! We counted 6 cookies and put 6 tally marks down. Marcus wants more cookies than Lucy. If we make a group of cookies for Marcus on this side of the paper, will we have more or less cookies? [Elicit student responses] Exactly, we will have more cookies, because Marcus wants more cookies than Lucy. Each time I stamp a sugar cookie for Marcus here, I am going to make a tally mark here. [Cue students by drawing a star or some symbol to mark the row where you are going to make tally marks for second group] Marcus wants more cookies. Will I have more or less tally marks when I count Marcus' cookies? [Elicit student response] That's right, I will have more tally marks because Marcus wants more cookies. Each time I put a stamp in this column for Marcus, I am going to put a tally mark under the marks I already made when we counted Lucy's cookies. What color did I make the tally marks when we counted Lucy's cookies? [Elicit student response] Right-red. Now I am going to use the blue marker to make the tally marks when we stamp Marcus' group of cookies. What color am I going to use for Marcus? [Elicit student response] That's right, blue. - If Marcus wants more cookies, then I will have more blue tally marks when I finish making Marcus' group of cookies. So, I going to stamp a cookie for Marcus here and put a blue tally mark here, and then I'll do another one, and another one, and now I'll make another stamp and put a tally mark. - Let's see, have I made more cookies on this side? [Elicit student response] No, I haven't and I don't have more blue tally marks here either. I need to make more cookies for Marcus. Each time I stamp a cookie, I am going to put a tally mark here. And I will make sure that I line up my cookies and my tally marks. So, I'll line up this one and this tally mark, and this one and this tally mark. Look! I have stamps on this side (cue students) that are not matched up with any of Lucy's cookies. And I have blue tally marks that are not matched up with red tally marks. Marcus has cookies that are not matched with any cookies

from Lucy's group. That means that Marcus has more cookies. And there are tally marks here that are not matched up with any of the tally marks I made for Lucy's cookies. That means I have made more tally marks for Marcus.

3.) Model how to count items in both groups.

- Cue students to the number in each group by drawing a circle or box to put the numbers in.
- Use think alouds and questions to emphasize reverse comparisons (more/less)
- Prompt student responses when counting

For Example:

When Grandpa Larry was helping Lucy, he had her count both groups of cookies. We need to do the same thing with our groups of stamp cookies. We've already counted Lucy's cookies. Who can remember how many chocolate chip cookies we made have in Lucy's group? Boy you are on top of it today! There are 6 cookies here for Lucy. Let's count them again. (Point to stamps of Lucy's cookies and count) 1,2,3,4,5,6 - 6 cookies and look, I made 6 tally marks here. - 1,2,3,4,5,6 and put the number 6 here in this circle. Do you think we will have more or less cookies in this group of sugar cookies that we made for Marcus? - Yes! We will have more, because Marcus wanted more cookies. Let's count Marcus' group to make sure. 1,2,3,4,5,6,7,8, - 8 cookies for Marcus. And I made 8 tally marks - 1,2,3,4,5,6,7,8 - I am going to put 8 in this circle by Marcus' tally marks. Marcus has cookies and tally marks that were not matched with Lucy's because he had more. Who had more cookies? - You are correct - Marcus does. Marcus has 8 cookies and Lucy has 6 cookies. Marcus has more cookies than Lucy. When we counted both groups of cookies we found out that Lucy has 6 and Marcus has 8. 8 is more than 6, so Marcus has more cookies and Lucy has less cookies than Marcus. We made a group of cookies for Marcus that has more cookies in it than this group. (Point to groups). I am going to circle this word MORE because Marcus has more cookies than Lucy..

4.) Repeat this activity making Marcus a group that has less cookies and a group that has the same number of cookies. Review all three comparisons.

5.) Use different arrangements (circular, scattered) of items.

6.) Move from comparing groups of unlike items (e.g. pictures and drawings, pictures and stamps, stamps and crayon dots) to comparing groups of like items (stamps and stamps, dots and dots).

7.) Cue students to the two different groups of items by using color cues (red stamps and blue dots, yellow dots and green dots).

Scaffold Instruction

Purpose: to provide students an opportunity to build their initial understanding of how to identify and make groups that show the same as, more than, or less than a given group of objects using representations of objects and to

provide you the opportunity to evaluate your students' level of understanding after you have initially modeled this skill.

*Scaffolding at the representational/drawing level of instruction should occur using the same process as scaffolding instruction at the concrete level of instruction (See the description of Scaffolding Instruction for "I identify if a given group of objects has more than, less than, or the same number of objects when compared to another group of objects" in the Concrete Level Instructional Plan). The steps used during Explicit Teacher Modeling should be used as structure for scaffolding your instruction.

Materials:

* Dependent on the skill (See materials listed for the specific skill under Explicit Teacher Modeling).

Description:

HIGH

MEDIUM

LOW

1. Scaffold instruction using a high level of teacher direction/support (*Dependent on the needs of your students, you may want to continue to associate concrete materials with drawings at this level as described under Explicit Teacher Modeling.) *Move to the next phase of scaffolding only when students demonstrate understanding and ability to respond accurately to your prompts.
2. Scaffold instruction using a medium level of teacher direction/support (*If you associated concrete materials with drawings while scaffolding using a high level of teacher direction/support, then do not include concrete materials during this phase of scaffolding). *Move to the next phase of scaffolding only when students demonstrate understanding and ability to respond accurately to your prompts.
3. Scaffold instruction using a low level of teacher direction/support (*Students should actually draw as you prompt during this phase of Scaffolding Instruction.). *Move students to independent practice of the skill only after they demonstrate the ability to perform the skill with limited prompting from you.

Instructional Phase 2: Facilitate Acquisition to Mastery – Student Practice

Receptive/Recognition Level

Purpose: To provide students with multiple practice opportunities to identify if a given group of objects has more than, less than, or the same number of objects when compared to another group of objects.

Learning Objective 1: I identify if a given group of representations of objects has more than, less than, or the same number as another group of representations of objects.

Structured Peer Tutoring

Materials:

Teacher -

- Sample of index card, prompt sheet and response sheet to use when introducing and modeling activity.

Students -

- Sets of index cards, prompt sheets, response sheets, crayons

Description:

Activity:

Students will work in pairs. Each student will have a turn being a coach and being a player. The coach will have a stack of 10 index cards that display two groups of items and a prompt sheet. The prompt sheet will illustrate the steps to solving the problem. The player will have a piece of paper with 10 boxes. Each box will be numbered 1-10 and will have the words "more, less, same" as well as 2 lines. The coach will show the player an index card that is divided vertically down the middle and has two groups displayed. The area on the left side of the paper should be slightly shaded to differentiate this group from the group that is going to be compared (the group on the right of the line). Each index card will have the correct answer (more, less, same) written on the back. The player will need to respond whether the second group (the one on the right) has more than, less than, or the same number of items as the given group (the group on the left) by circling the correct word on his sheet. The coach will turn the index card over, check the player's answer, and put a check on the first blank line in the box if the player gets the answer right the first time. If the player does not circle the correct word, the coach reminds the player to make sure to count and match, and the player is given a second try. After the player circles his second choice, the coach again checks the answer, and if it is correct, puts a check on the second blank line in the box. If it is still not correct, the coach solves the problem with the player by counting and drawing tally marks for the each group, matching the first group to the second group, and recounting the tally marks. After the player has completed a sheet (identified 10 groups), the coach and player switch roles using a different set of index cards.

Structured Peer Tutoring Steps:

- 1.) Select pair groups and assign each pair a place to practice (try to match students of varying achievement levels if possible).
- 2.) Review directions for completing structured peer tutoring activity and relevant classroom rules. Practice specific peer tutoring procedures as needed (see step #4).
- 3.) Model how to perform the skill(s) within the context of the activity *before* students begin the activity. Model both what the coach does (e.g. reads the questions/prompts on the learning sheet; check answers using number card; provide corrective feedback; record points) and how the player responds (e.g. using concrete materials). Prior to starting this activity, the teacher will introduce the activity and model how:
 - a. A player selects a card, determines the answer and circles the corresponding word.
 - b. A coach listens to the player, checks the answer, and provides feedback and positive reinforcement.
 - c. A coach uses the prompt sheet to assist the player to rethink his/her answer.
 - d. A player accepts feedback and reinforcement from the coach.
 - e. A player rethinks an answer that is not correct.
 - f. A coach re-checks the answer and provides feedback and positive reinforcement.
 - g. One or both partners can signal the teacher if a question arises.
 - h. Partners will switch roles once the player has completed one set of 10 problems.
- 4.) Divide the practice period into two equal segments of time. One student in each pair will be the player and will pick the top card from the set of cards. The other student will be the coach. The coach record the response in the appropriate space on the player's learning sheet, check the answer key, and provide feedback regarding the player's response. For inaccurate responses, the coach provides feedback and the player attempts the question a second time
- 5.) Provide time for student questions.
- 6.) Signal students to begin.
- 7.) Signal students when it is time to switch roles.
- 8.) Monitor students as they work in pairs. Provide positive reinforcement for both "trying hard," responding appropriately, and for students using appropriate tutoring behaviors. Also provide corrective feedback and modeling as needed.
 - a. Circulate around the room to ensure that all pairs are actively engaged.
 - b. Set individual goals for students and monitor progress towards those goals.
 - c. Provide corrective feedback and positive reinforcement to coaches and players.
 - d. Collect response sheets to track student progress.
 - e. Provide whole-group review with one or more problems after all pairs have finished.

Expressive Level

Purpose: to provide students opportunities to practice the skill be expressing their understanding of the concept.

Learning Objective 3: Create a group of representations of items that is more than, less than or the same as a given group of representations of items.

Structured Language Experience:

Materials:

Teacher -

- Sample sheets to model activity for students.

Students -

- A set of laminated cards/sheets that are divided in half by a vertical line. . Each card will display a sample group of items on the first half with the corresponding number written directly under the group. At the top of the other half of the card will be one of the following words: more, less, same. Under the words will be a blank box for drawing and a space to write the correct number.
- Stamps, crayons

Description:

Activity:

This activity can be done with an individual student, a small group, or the whole class. If done with more than one student, the teacher will need to individually interview each student during or after the activity. According to the word at the top of the right hand column, the student is to use stamps or markers to make a group that has either more than, less than, or the same number of items as the given group on the left-hand side of the card. After making the new group and writing (or placing the appropriate number card) under the new group, the student will tell the teacher how they know that the new group has more than, less than, or the same number of items as the group.

Structured Language Experience Steps:

1. Review directions for completing structured language experiences and relevant classroom rules.
2. Model how to perform the skills within the context of the activity *before* students begin the activity. Prior to starting the activity, the teacher will introduce the activity and model how to:
 - a. Select a card
 - b. Recognize the word at the top of the right-hand column.
 - c. Draw or stamp a solution.
 - d. Explain how he/she thinks that the answer is correct.
- 3.) Provide time for student questions.
- 4.) Signal students to begin.
- 5.) Monitor students as they work:
 - a. Circulate and check on children's responses throughout the activity.

- b. Make sure that each child receives feedback during the activity.

Instructional Phase 3: Evaluation of Student Learning/Performance (Initial Acquisition through Mastery/Maintenance)

Continuous Monitoring & Charting of Student Performance

Purpose: to provide the teacher with continuous data for evaluating student learning and whether your instruction is effective. It also provides students a way to visualize their learning/progress.

Materials:

Teacher-

- Goal sheet/Chart
- Planned verbal prompts for task completion

Students:

- Appropriate response sheet/curriculum slice/probe

Description:

Steps for Conducting Continuous Monitoring and Charting of Student Performance:

1. Choose whether students should be evaluated at the receptive/recognition level, the expressive level, or both.
2. Choose appropriate criteria to indicate mastery.
3. Provide appropriate number of prompts in an appropriate format (receptive/recognition or expressive) so students can respond.

Suggestions:

Receptive/recognition level: Student can correctly identify if a given group of 10 or fewer representations of objects has more than, less than or the same number of objects when compared to another group of 10 or fewer items.

Expressive level: Create a group with more than, less than, or the same number of items than a given a group of 10 or fewer items. [This could be done in a center with the teacher checking work cards to see if the student correctly made designated group.]

4. Provide students with the materials to complete each task.
5. Provide directions on how to complete each task.
6. Conduct evaluation. Provide 3-5 trials on each task.
7. Count corrects and incorrects (# of trials) for each task.
8. You and the students will plot their responses on a suitable chart. A goal line that represents proficiency should be visible on each student's chart. For representational level of understanding this should be 100% on 8-10 trials over two to three consecutive days

9. Talk with children about their progress as it relates to the goal line and their previous performance. Prompt them to self evaluate (Did you use tally marks when you counted both groups? Did you match up the groups? Did you check to see if you had any items left over?)
10. Determine whether you need to alter or modify your instruction based on student performance.

Additional Assessment Activity Appropriate For This Math Skill/Concept

Flexible Math Interview

Purpose: to provide the teacher with additional diagnostic information in order to check student understanding and plan and/or modify instruction accordingly.

Materials:

Teacher -

- Drawings of groups of objects, word cards with more, less and same

Students -

- Drawing paper, crayons

Description:

With individual students or in small groups, the teacher will have students draw groups of objects that are more, less, or the same as the teacher's sample drawing. The teacher will ask students to explain their drawings. For example: "I drew four wagons because that is more than two wagons." The teacher should note errors or misconceptions while the student is "teaching", but the teacher should not stop the student for correction purposes. By having the student complete the entire explanation, the teacher will gain a better understanding of the student's thinking. The teacher confers with students regarding specific errors or misconceptions afterwards.

Instructional Phase 4: Maintenance - Periodic Practice to Maintain Student Mastery of Skills

Purpose: to provide periodic student practice activities & teacher directed review of this skill after students have mastered it.

1. Songs and Fingerplays

Materials:

- Dependent on activity selected

Description :

Nursery rhymes, songs, and chants that reinforce this concept (one potatoe, two potatoe, etc

2. Spinner game

Materials:

- Spinner with groups of pictures in each section of a wheel.
- Pack of word cards
- Paper
- Crayons, markers

Description:

Child spins wheel and draws a word card (more, less, same). Child draws more, less or same objects as what spinner points to.

3. M & M sort.

Materials:

- M & M's
- Teacher -made graph

Description:

Give out M & M's. Child sorts by color and graphs to show more, less, or same.

4. Reading in the Content Area

Materials:

Use the following books: The Hungry Caterpillar, The Doorbell Rang

Description:

Read and illustrate story