Instructional Plan

Representational/Picture Drawing Level

Name of Math Skill/Concept: Identify and make groups that show one to one correspondence using pictures, drawings, and other representations of objects.

Prerequisite Skills Needed:

- **Identifying and making groups that show one to one correspondence using concrete objects.** 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.
- If students have difficulty with writing numerals, provide them with number cards.

Learning Objectives:

1.) **Identify groups that show one to one correspondence using groups of concrete items and groups of representations of these items.**
2.) **Identify groups that show one to one correspondence using representations of objects.**
3.) **Identify groups that do <u>not</u> show one to one correspondence using representations of objects.**
4.) Make two groups that show one-to-one correspondence using representations of concrete objects.

Important Ideas for Implementing This Teaching Plan:

1.) Only teach students to identify and create groups that are matched one to one using drawings and other representations *after* students have demonstrated mastery of performing these skills using concrete objects (See the Concrete Level Instructional Plan).
2.) Explicitly link concrete objects to their representations.
3.) Teach students an easy way to draw representations of concrete objects (e.g. crayon dots).
4.) Color code similar characteristics of numerals (e.g. straight lines of 1, 4, 7).
5.) Point out distinguishing characteristics between numerals (flat head seven, skinny one).

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

Teach Skill/Concept within Authentic Context

Description: Links are made to the concrete experiences and the contexts used at the concrete level. Pictures of the stuffed animals used at the concrete level are used initially to provide an explicit link from the activities presented at the concrete level to the skills taught at this level.

Build Meaningful Student Connections

Purpose: to assist students to make meaningful connections between what they know about identifying and making groups that show one to one correspondence using concrete objects to using pictures, stamps, and drawings 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: **Identify groups that show one to one correspondence using groups of concrete items and groups of representations of these items.**

Materials:

Teacher-

- Concrete materials (e.g. stuffed animals, counting blocks)
- Animal pictures

Description:

1.) **L** ink to students' prior knowledge of what they know about making groups that are matched one-to-one using stuffed animals and other concrete materials used in previous lesson(s).

For Example:

Boys and girls please take your special stuffed animal and put it in front of you as we go to sit on the rug. Our animal friends are going to help us do our math lesson again today. We know that when we hug our stuffed animal, we are matched – one animal to one person. Remember how we used our stuffed animals to make matches. We made matches with stuffed animals and children (demonstrate), matches with stuffed animals and other stuffed animals (demonstrate), and matches with stuffed animals and blocks (demonstrate).

2.) **I** dentify the skills students will learn: Use pictures, stamps and drawings to identify and make groups that are matched one to one.

For Example:

I have something special to help us practice our lesson today. Can anyone guess what I'm holding? …Right, pictures of our special stuffed animals! Look this is a picture of Maria's stuffed animal, and this is a picture of Cameron's stuffed animal…. Today we are going to learn to make matches using these pictures. We will use these pictures as well as other items and see if we can make groups that are matched one to one. Remember when we match one-to-one, each group has the same number and every thing is matched, one-to-one

3.) **P** rovide rationale/meaning for using pictures to make and identify groups that are matched one to one.

For Example:

Matching can help us see if groups have the same or different number of items in them. It helps us count.

Provide Explicit Teacher Modeling

Purpose: to provide students a clear teacher model of how to use and draw pictures that represent objects to identify and make groups that show one to one correspondence.

Learning Objective 1: Identify groups that show one to one correspondence using groups of concrete items and groups of representations of these items.

Materials:

Teacher-

- Appropriate concrete materials,
- Pictures, stamps, crayons,
- White board or other visual display area.

Description:

A. Break down the skill of identifying groups that show one to one correspondence using groups of concrete items and groups of representations of these items.

1.) Count items in both groups using tally marks.

2.) Match items in first group to items in second group.

3.) Count and compare tally marks.

B. Explicitly describe and model how to identify groups that show one to one correspondence using groups of concrete items and groups of representations of these items (e.g. stuffed animals and pictures of stuffed animals, animal stamps).

1.) Count items in each group using tally marks (frequency graph).

- Explicitly link the previous lesson using concrete objects to this lesson.
- Demonstrate how to use tally marks when counting
- Cue students to differences in two groups by color coding
    - 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, stuffed animals).
    - Initially, each group should be lined up in a vertical row.
    - As each item is counted, put a tally mark on the display board at the bottom of the appropriate section.
    - Use a different color to make the tally marks for each group.

<u>For Example:</u>

Yesterday we counted our stuffed animals and matched them to children. Today we are going to count them again, but this time we are going to match them to pictures. What are we going to match them to today? (Elicit student response.) Let's count this group of stuffed animals. (Prompt students to count. If you have a group of 10, use the song - one little, two little, three little animals…). Now I am going to count my group of stuffed animals again. This time as I count each stuffed animal, I am going to put a red mark on the board. This is called a tally mark. Help me while I count and put a tally mark on the board for each animal. (Repeat song, if appropriate, and put a tally line in a row as each animal is counted.) Look on this side; I have a picture for each animal. Let's count the pictures. I have (1,2,3, …10) 10 pictures of stuffed animals. As I count each picture, I am going to put a mark on this board. I am going to use blue to help me remember that these tally marks are for my pictures. Help me count while I put a mark on the board for each picture.

2.) Match the items in first group to the items in second group.

- Cue students to the matches by pointing and using yarn, string, coffee stirrers, etc.

For Example:

Now, let's see if we have can match each animal with a picture. I have Sam's bear here and I have its picture beside it. I am going to put a pipe cleaner between the stuffed animal and its picture. This shows me that the animal and the picture are matched one to one. Next is Joshua's rabbit, and here is its picture….

3.) Count and compare the tally marks for the two groups.

- Demonstrate how to count tally marks and write number.
- 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 elicit student responses when counting

For Example:

Is each animal matched with a picture? (Elicit student responses). I think you are right. I can tell from checking the pipe cleaners that I have matched each animal with a picture. I don't have any animals that are not matched with a picture. And I don't have any pictures that are not connected with an animal. Now that I've matched each item from this group of stuffed animals to a picture, I am going to see if I have the same number in each group. I am going to count my tally marks for the group of stuffed animals and put the total number here in this circle. Next I'm going to count my tally marks for the group of pictures and put the total number here in this circle under the picture column. How many animals do I have? (Elicit student response.) Right! 10. (Point to number in circle). And how many pictures do I have? (Elicit student response.) Right again! I have 10. (Point to number in circle). So, I have 10 animals matched one to one with 10 pictures. I have the same number in each group. Each animal is matched with a picture.

4.) Repeat the above activity two or three more times using different numbers of items and pictures (groups of 5, 8, 3).

Learning Objective 2: Identify groups that show one to one correspondence using representations of objects.

Materials:

Teacher-

- Groups of pictures, stamps, drawings
- Marker
- White board or other visual display area.

Description:

A. Break down the skill of identifying groups that show one to one correspondence using representations of objects.

1.) Count items in both groups using tally marks.

2.) Match items in first group to items in second group.

3.) Count and compare tally marks.

B. Explicitly describe and model how to identify groups that show one to one correspondence using representations.

* Follow the same process (steps 1-3) as described for Learning Objective 1 "**identify groups that show one to one correspondence using groups of concrete items and groups of representations of these items."**
Instead of using a group of concrete objects and a group of representations, use two groups of representations of objects (drawings, pictures, crayon dots).

Key Ideas

1. Before modeling how to identify and make groups that show one to one correspondence using representations and drawings, it may be necessary to explicitly model how to represent an animal with a picture, stamp, or crayon dot.

- ♦ Arrange a group of stuffed animals.
- ♦ Take down each stuffed animal and put a picture in its place.
- ♦ Follow a similar sequence by substituting a stamp for each stuffed animal, and finally representing each stuffed animal with a crayon dot.

For Example:

We've been making matched groups using our stuffed animals. We can also make matched groups with pictures stamps, or even drawings. I have this group of stuffed animals. But maybe I don't want to carry them around with me when I do my math. Well, one thing we can do is to use pictures, stamps, or drawings to stand for these stuffed animals. Let me show you what I mean. Here is my group of stuffed animals. Instead of using them, I want to use something that represents them, but is not as big and bulky. I wonder what I could use? (Elicit student responses that pictures or stamps could be used). You are right! I could use these pictures. Let's see, instead of having this bear up there, I am going to put a picture of the bear on this piece of paper. (Continue to do this with several of the stuffed animals.) 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 bunny, I am going to put a stamp on the piece of paper, and instead of this bear, I am going to put this stamp. (Continue to do this with several more of the stuffed animals). Well, we have used pictures and we

have used stamps, but we can also draw to represent the animals. This time, each time I take a stuffed animal away, I am going to put a dot on the paper. (Continue to do this with remaining stuffed animals.)

2.) Cue students to the matches by drawing lines between each match or marking out matched items in each group.
For Example:
Now, I'm going to check and see if I can match every item in this group (point to the pictures) to every item in this group (point to the stamps). I'm going to draw a line between each picture and stamp I match up. So, I'm going to draw a line between this picture (point to the top picture) and this stamp (point to the top stamp), and then between this picture and this stamp (point to each item and draw line between items)….

3.) Repeat the above activity two or three more times. Use different arrangements to show students how to mark out items as opposed to drawing lines when they match them. (e.g. Instead of having the stamps and pictures aligned in rows, have them arranged in circles, or scattered in each column and model how to mark out matched items.)

4.) After repeating the activity using stamps and pictures, continue to model how to identify matching groups using a different numbers of groups (groups of 4 items, groups of 8 items, etc.).

5.) Start with groups that have unlike items and move to using groups that have like items (e.g. stamps and pictures, dots and stamps, dots and pictures, then stamps and stamps, dots and dots).

6.) Cue students to the two different groups of items by continuing to use color cueing (e.g. red bear stamps and blue bear stamps, yellow dots and green dots).

Learning Objective 3: Identify groups that do not show one to one correspondence using representations of objects.

Materials:
Teacher-

- Pictures, stamps,
- Crayons, markers
- White board or other visual display area.

Description:

A. Break down the skill of identifying groups that do not show one to one correspondence using representations of objects

1.) Count items in both groups using tally marks.

2.) Match items in first group to items in second group.

3.) Count and compare tally marks.

B. Explicitly describe and model how to identify groups **that do not show one to one correspondence using representations of objects.**

* Follow the same process (steps 1-3) as described for Learning Objective 1 "**identify groups that show one to one correspondence using groups of concrete items and groups of representations of these items."**
Instead of using two equal groups of representations of objects, use groups with different numbers of items.

Key Ideas:

1.) Use think-alouds to prompt students to the differences in the number of items in each group.

For Example:

As we count, I'm going to make a mark here at the bottom. Let's count how many marks I made for the pictures. I made 6 marks, so I have 6 pictures. Now let's look at this group. This is a group of animal stamps. I'm going to count how many stamps we have in this group. Help me count and I'll make a mark here at the bottom. Let's count how many marks I made for the stamps. I have 3 marks, so I have 3 stamps. Hmm, it seems to me that I have more marks on this side for the pictures than I do on this side for the stamps. I better do some more checking to see if these two groups are matched one to one or if they are not matched one to one.

2.) Continue to cue students to the matches by drawing lines between each match or marking out matched items in each group.

For Example:

I'm going to check and see if I every item in this group (point to the pictures) matches one to one with every item in this group (point to the stamps). I'm going to draw a line between each picture and stamp I match up. So, I'm going to draw a line between this picture (point to the top picture) and this stamp (point to the top stamp), and then between this picture and this stamp (point to each item and draw line between items).

3.) Model how to count and compare the two groups.

For Example:

Is each picture matched with a stamp? (Elicit student responses). I think you are right. I can tell from the lines that I have drawn that there is not a stamp with each picture. I can also see by counting the tally marks we made. Let's count them again. I am going to count my tally marks for the group of pictures and put the total number here in this circle. I made (1,2,3, 4, 5, 6) 6 tally marks here when I counted the pictures. Next I'm going to count my tally marks for the group of stamps and put the total number here in this circle under the stamp column. I made (1,2,3,) 3 tally marks when I counted the stamps. How many stamps do I have? (Elicit student response.) Right! ___. (Point to number in circle). I have ___ pictures and ___ stamps. I have more pictures than stamps. I do not have groups with the same number of items. They are not matched one to one.

4.) Repeat the above activity several more times. Use different arrangements to show students how to mark out items as opposed to drawing lines when they match them. (e.g. Instead of having the stamps and pictures aligned in rows, have them arranged in circles, or scattered in each column and model how to mark out matched items.)

5.) Use different numbers in the groups (groups of 4 items, groups of 8 items, etc.) and both like and unlike items (e.g. dots and stamps, dots and pictures, stamps and stamps, dots and dots).

6.) Cue students to the two different groups of items by continuing to use color cueing (e.g. red stamps or dots and blue stamps, yellow dots and green dots).

Learning Objective 4: Make two groups that show one-to-one correspondence using representations of objects.

Materials:

- Pictures, drawings, stamps
- White board or other visual display
- Markers

Description:

A. Break down the skill of making two groups that show one to one correspondence using representations of objects.

1.) Make/count first group.

2.) Make a second group with same number of items.

3.) Check if groups are matched one to one.

4.) Count items in each group.

B. Explicitly describe **and model how to make groups that show one to one correspondence using representations of objects.**

1.) Count the objects in the first group using a frequency graph/tally marks.

- Prompt student responses when making and counting first group.
- Cue students to counting each group by using color-coding for tally marks and numbers in each 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.
    - Cue students to the number in each group by drawing a circle or box to put the numbers in.

<u>For Example:</u>

I have a group of pictures and a want to make a matching group of stamps. I want to make matched groups so that each picture is matched one to one with a stamp. First I am going to put up my pictures in a row. Then I'm going to count how many pictures I have up here. Help me count and as we count, I'm going to make a mark here at the bottom.

Let's count how many marks I made for the pictures. I made 5 marks, so I have 5 pictures. I am going to put the number 5 here in this circle underneath my row of pictures.

2.) Make a second group by matching items in the second group to the items in the first group.

- Demonstrate how to make second group.
- Cue students to differences in groups by using a different color to make the tally marks for the second group.
- Prompt student responses while matching items. As each item in the second group is made, cross out a tally mark from the first group.

For Example:

To make matching groups, I need to match each item in this group of stamps to one of the pictures that I have up on the board. I am going to take one stamp and put it here in this column. Each time I put a stamp in this column, I am going to cross out one of the picture tally marks I made. When all of the tally marks are crossed out, then I know that I have matched each picture with a stamp. (* Initially, use different colors to cue students to tally marks made for the first group and cross marks made for the second group.) So, I'll put a stamp here, and cross out this tally, and a stamp here and cross out this tally. Are there still tally marks that are not crossed out? Are there still pictures that do not have stamps beside them? (Elicit student response). Yes, there are. So, I'm going to keep putting stamps beside the pictures and crossing out tally marks until each picture has a stamp beside it and all the tally marks are crossed out.

3.) Check if groups are matched one to one.

- Use think alouds and questions to demonstrate how to see if each item in the first group is matched to item in second group.
- Demonstrate how to check for matches using visual cues.
- Provide visual and/or multisensory cues when checking if groups are matched one to one.
- Cue students to the matches by drawing lines or crossing out items.

For Example:

Now I am going to check to make sure that I have matching groups. I need to see if I have matched each picture with a stamp. To help me check I am going to put my little finger on a picture and then put my thumb on a stamp. When I have made a match with my fingers, I am going to cross out the picture I have my little finger on and the stamp I have my thumb on. (* If representations are lined up, show students how to draw a line between each match). Have I crossed out all of the pictures and all of the stamps? (Elicit student response). Yes, I have! I have made two groups that match one to one.

4.) Model how to count the number of items in each group.

- Prompt student responses when counting.

For Example:

The last thing I want to do is to count the items in each group. Help me do that now. I have (1,2,3…) 5 pictures here. Remember, we wrote a 5 in this circle. And I have (1,2,3….) 5 stamps here. I am going to put a 5 in this circle under my

rows of stamps. I have the same number of pictures as I do stamps. Each picture is matched one to one with a stamp. I have made two groups that are matched one to one.

5.) Repeat this activity several times using different numbers of items in a group (group of 3, group of 7) and different types of representations (pictures, stamps, dots, etc.).

6.) Use different arrangements to show students how to draw lines as well as mark out items when they make matches.

7.) Move from using unlike items (pictures and stamps) to like items (two groups of stamps, two groups of crayon dots).

8.) Cue students that there are two different groups of items by continuing to use color coding for the groups (e.g. red stamps o and blue stamps, yellow dots and green dots), as well as for the marks, circles, and numbers used when counting and matching each group.

Scaffold Instruction

Purpose: to provide students an opportunity to build their initial understanding of how to identify and make groups that show one-to-one correspondence 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 " identifying and making groups that show one to one correspondence" 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 the materials listed for the specific skill under Explicit Teacher Modeling).

Description:

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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 multiple practice opportunities to identify groups that show and do not show one to one correspondence.

Learning Objective 3: **Identify groups that do <u>not</u> show one to one correspondence using representations of objects.**

Cooperative Learning

Materials:

Teacher

- Bell or timer to signal when activity is to end.

Students:

- Large index cards that show groups of pictures, stamps and dots. Some of the groups should be matched, and some should be unmatched.
- Two containers, one for matched and one for unmatched groups. Color code the bins.

Description:

Activity:

Students will work at tables in teams of 4 or 5 students. Each team is to decide if a card shows a matched or unmatched group. After the team makes their decision, they will place the card in one of two bins (matched/ not matched). When the teacher rings the bell, the teams are to get their materials and start working. The teacher will again ring the bell to signal an end to the activity and at that time, ask individual students to pick a card from one of the two bins and tell the class whether it shows a matched group or not.

Cooperative Learning Groups Steps:

1.) Provide explicit directions for the cooperative group activity including what you will do, what students will do, and reinforce any behavioral expectations for the game.

2.) Arrange students in cooperative groups. Groups should include students of varying skill levels.

3.) Assign roles to individual group members and explain them:

a. Materials manager (gets the materials – pack of cards and bins)

b. Turn –taker (makes sure that each student at the table gets a turn)

c. Reporter (raises his/her hand to let the teacher know when the group has completed the task.)

d. Encourager(s) (encourages each person as they are deciding)

4.) Distribute materials.

5.) Model one example of skill(s).

a. Take a sheet from the basket.

b. Decide if it shows groups that are matched one to one

c. Put it in the correct bin (matched/unmatched).

d. Make sure that the team agrees with the decision before the next student has a turn.

6.) Review/model appropriate cooperative group behaviors and expectations.

a. Agree or disagree with a teammate's decision.

b. Listen while children are sharing their responses with the whole class.

7.) Provide opportunity for students to ask questions.

8.) Teacher monitors and provides specific corrective feedback & positive.

a. Circulate around the table and check on children's responses.

b. Make sure that each child receives feedback on his/her decision.

c. Provide closed choice questions (are these groups matched one to one?) or picture cards (match/no-match) to help students who have difficulty with verbal expression label their containers.

d. Ask each child in the class to share his/her decisions at least once either with the entire class or individually with the teacher.

e. Provide corrective feedback to students as needed.

Expressive Level

Purpose: to provide students practice opportunities to express their understanding of one to one correspondence so they will master it.

Learning Objective 4: Make two groups that show one-to-one correspondence using representations of concrete objects.**.**

Instructional Game

Materials:

- Small game boards (similar to candy land) with colored cards and tokens;
- Small chalkboard, chalk.
- Set of game board cards. Each gameboard card will show a group of stamps on one side and a corresponding group of dots on the other.

Description:

Activity:

Students will play this game in pairs. Each pair will have a game board, small chalkboard, chalk, and a group of cards. The first child to go will draw a colored card that shows a group of stamps and draw a one to one matching group of dots on the chalkboard. His/her partner will then turn the card over to check the answer. If the drawing is correct, then the first child moves to the first open square on the game board that corresponds to the color of the card. The children are to take turns until they have both completed the game board path.

Instructional Game Steps:

1.) Introduce game.

2.) Distribute materials.

3.) Provide directions for game, what you will do, what students will do, and reinforce any behavioral expectations for the game.

4.) Provide time for students to ask questions.

5.) Model how to play the game:

a. Draw a card and look at the group.
b. Take the chalkboard and draw a corresponding group of dots on the chalkboard.
c. Use cueing questions: How many are in my group? Do these two groups match? Do the groups have the same number?
d. Have a partner check the answer.
e. Move to the appropriate spot on the game board.
f. Give corrective feedback to your partner.
g. Take turns.
h. Make sure not to peek at the answers on the card before drawing.
i. Signal the teacher if there are questions.
j. Signal the teacher that the game is completed.

6.) Play one practice round so students can apply what you have modeled. Provide specific feedback/answer any additional questions as needed.

7.) Monitor students as they practice by circulating the room, providing ample amounts of positive reinforcement as students play, providing specific corrective feedback/ re-modeling skill as needed. Remind students to use their cueing questions: How many are in my group? Do these two groups match? Do the groups have the same number?

8.) Play game.

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

Continuously Monitor & Chart Student Performance

Purpose: to provide you 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

Student –

- appropriate response sheet

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 an appropriate criteria to indicate mastery.

3.) Provide appropriate number of prompts in an appropriate format so students can respond.

Suggestions: Receptive/recognition level:

Student can correctly recognize groups that are matched and groups that are not matched.

Expressive level:

Given two groups of items, students can create matching groups showing one-to-one correspondence.

4) Provide students with materials to complete each task

Receptive level: cards that show groups that are matched one to one and groups that are not matched- have students verbally say if card shows matched or not matched or have students sort cards in appropriate bin.

Expressive level: have a group of stamps and box of crayons. Give a sheet of paper or card that has two columns. Direct them to make a group of stamps on one side and then make a matching group of dots in the other column. Or give students a card that has a group of stamps in one column and direct them to make a corresponding group in the other column.

*To evaluate the whole class, give each child sheets of paper. Show a group of drawings on the board and have the children draw a matched group.

5) Provide directions on how to complete each task. (Tasks can be done at different times).

6.) Conduct evaluation. Provide 8-10 trials on each task.

7.) Count corrects and incorrects (# or trials) for each task.

8.) You and the student plot their responses on a suitable chart. Children will enjoy seeing their progress plotted using smiley faces, checks, stickers, etc. Use one color and symbol/sticker for expressive task trials and a different color and symbol/sticker for receptive task trials. A goal line that represents proficiency should be visible on each student's chart. For representational level of understanding, this should be 100% accuracy on 8-10 trials for 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 cross out the tallies you made for the first group each time you added an item from the second group? Did you count to see if your groups had the same number of items?)

10.) Determine whether you will 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 you with additional diagnostic information in order to check student understanding and plan and/or modify instruction accordingly.

Materials:

- Group of representations, drawing paper, crayons, markers.

Description:

Give student a drawing or picture card that shows a group of items. Ask him/her to think aloud as he/she draws a group that will match the given group one to one.

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 students periodic opportunities to maintain mastery of skill previously learned.

1. Math Center

Materials:

- Flash cards with groups

Description:

Flash card match. Make matches with cards that show groups that can be matched one to one. Can be played with partner (e.g. concentration) or as folder game by student.

2. Instructional Game

Materials:

- **Chairs**
- **Music**

Description:

Musical Chairs – as game is played, verbalize one child to one chair, before removing chair and starting music again.

3. Reading in the Content Area

Materials:

- Book: One by One by Nick Sharrat

Description:

Read book and discuss.