Unit 1

Week 1

Small Groups: Exploring Manipulatives Low Support

Math

SG2

Standards:

MP-Develops positive attitudes about math.

CC-Participates in whole group and small group math-focused activities.

CC-Recognizes and names written numerals 0-5

MD-Matches and groups similar objects.

Guiding Math Ideas

- Discovery and exploration of math materials
- Enjoyment and participation in math activities
- Numbers are counting words
- Matching and Grouping

Math Concepts From Unit 1 Learning Progressions

- Learning math starts with discovery & exploration
- Demonstrating perceptive (intuitive) number in play or other daily activities.
- Matching and Grouping (Attribute recognition)

Materials:

- Attribute toys in baskets or buckets (colored, many sized dinosaurs, cars, bears, etc.) 2 or more sets.
- 1 " Inch Cubes
- Multi-colored and sized baskets (plastic or natural materials)
- Paper plates
- Family attribute figures
- Muffin tins or other organizers with compartments.
- Large Numeral Cards-1-5
- Plastic Numerals 1-5

Math Vocabulary:

- Math
- Math center
- Count(ing)- we count to find out how many
- Match- when things are the same
- Group- several objects that go together
- Labels- papers or stickers with words and pictures that show us what something is.
- Number- a word that tells us to count

Preparation:

See Small Group 1. Added items are Family Figures and Plastic Numerals 1-5. This activity is foundational for Week 2 Who Lives with Me? Activity.

Procedure:

Place the numeral cards and plastic numbers in the play area. Describe your own actions as you choose a number and place a matching number of manipulative items beside it or near it.

I wonder how many XXX I have in this group. I am going to count them. [Count items from 1-5 and place a card or plastic number beside it]. Keep your groups to less than 5 for this activity.

Model placing items in spare baskets, grouping items, putting items in different compartment, or combining inch cubes with attribute toys and other ways children play with toys that demonstrate mathematical thinking. While you will model counting and grouping, **do not** direct children to make groups of numbers according to your instruction.

Remind children of the clean-up routine.

When it is time to clean up, we will put the toys back in the baskets that <u>match</u>. [Show baskets with picture/word labels].

Strategies that Facilitate Math Thinking:

- Observe whether children imitate your number play, or use counting words as they play.
 - O Do children notice your use of number symbols? [number cards or plastic numbers]
 - Are children using any counting-related skills such as pointing or reciting number words [accuracy is not necessary at this point] as they play?
 - These cards are number cards. When we see them, we can say a number word.
- Children who are **not** counting are still using mathematical thinking as they match, group, and sort items. They are creating concepts and categories, which is how the brain learns math. Continue to observe and support any matching, grouping or sorting activities.
- Clean-up is a math activity. Continue to help children as they organize materials in clean-up containers. Children are matching, sorting, grouping when they organize materials. They are using spatial abilities as they fit items onto the shelves.

Documentation:

Counting and 1:1- Many 4 year olds have a notion of counting as a strategy for problem-solving, although they vary widely in accuracy. Observe any spontaneous use of number words to describe their play, including more global concepts such as "more" or "some".

Most 4 year olds children will demonstrate some innate classifying or sorting skills. Make note of those children whose play seems random or who may be overwhelmed by the amount of materials and adjust numbers and types of manipulatives for the rest of the week. Note children who are grouping and/or sorting items based on an attribute to guide planning counting and classifying skills. Closely observe play and note any embedded math concepts, such as directionality, orientation, taking apart and putting things together, and visual estimating. These actions are foundational and can be used to build math skills.

Provocation:

Naming number symbols: As children explore the number cards and toys, use number names as you pick up the number symbol This small group focuses on numbers 1-5. Recite the number word list as children show interest, including numbers greater than 5.

Encourage Spatial Thinking: Use words such as over, under, beside, on top of as you describe children's play or as they place items back on the shelves during clean up.