**#1 – DAILY DATA COLLECTION**

Teacher or children record data on a graph or chart using information generated from children’s lives. Many of the ideas can be repeated by changing the choices.

 **T- Chart Ideas:**

1. Which story did you like better? (T-Chart with book covers as choices)
2. Do you have a pet?
3. Do you have any brothers?
4. Do you have any sisters?
5. Do you like ice cream?
6. Do you like salad?
7. How do you get to school? Bus Walk Car
8. What is your favorite part of the day? (Choose two different parts of the daily routine to pick from.)

Outside time Story time

1. What kind of shoes are you wearing today?

Slip-on shoes (no laces or buckle) or NON slip-on shoes (shoes with buckles or laces)

1. Do you have a pet?

**Venn Diagram**

1. Does your first name have one of these letters? A E
2. Which vegetable do you like? Carrots Peas Both?
3. How do you get to school? Bus Walk Car
4. What pets do you have? Dog Cat Both?

**Graph**

1. How many brothers do you have?
2. How many sisters do you have?
3. What kind of shoe are you wearing today? Slip-on Buckles Laces
4. What color are your eyes?
5. What is your favorite character in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ book?

**#2 – MR. FUR BALL**

This could be an opportunity to use some of the information from Handout 7: Language of Logic and Reasoning.

**Materials:**

* Puppet of your choice (recommend this puppet be kept special and only used in this game)
* Box that has been covered in contact paper with a hole at the top for puppet to come out of and a hole at the bottom so you can slip your hand in the box

Mr. Fur Ball hides in the box and whispers a question to the adult. The question needs to have many possible answers.

Mr. Fur Ball whispers into adult’s ear. Mr. Fur Ball is kept down so children cannot see him yet.

Adult says, “Mr. Fur Ball wants to know \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. He will come out if you have the right answer.” Then the children respond to the question.

Adult keeps Mr. Fur Ball in the box for the first couple of turns and then he pops out. This gives children an opportunity to practice whatever skill you want them to work on.

**Geometry**

Example: “Mr. Fur Ball is thinking of a shape. I wonder what shape he is thinking of. Let’s go through our chart of shapes.” Pick an answer and go through the possible list of shapes.

Mr. Fur Ball pops out after a few shapes have been named. Repeat the process multiple times.

**Number Sense**

Example: “Mr. Fur Ball is thinking of a number between 1 and 10. I wonder what number is he thinking of. Let’s count to find out.”

Have Mr. Fur Ball whisper into adult’s ear (adult makes up a conversation).

**Algebra & Function**

Example: “Mr. Fur Ball has made a pattern. I wonder what the pattern is.”

Have some items laid out on the floor or table in a pattern. Lay out the pattern using items that have two attributes (e.g., pattern blocks).

Children can say the pattern by using color or shape names. Have Mr. Fur Ball whisper into adult’s ear (adult makes up a conversation).

You can also have children create a pattern and have Mr. Fur Ball guess. He should make a wrong guess the first time so the children have the opportunity to correct him.

**Measuremen**t (This activity works best in small group.)

Example: “Mr. Fur Ball is wondering which group of materials will make the longest train. What do you all think?”

Children can make verbal guesses or place their guess on a chart.

Adult has piles of snap cubes, small blocks, and links (any manipulatives can be used). Then children assemble the different items in a row so they can be compared.

**#3 – GUESS MY CAGE**

This game has been adapted from a vignette in Juanita V. Copley’s *The Young Child and Mathematics*, *Second Edition*, pp. 33-35.

**Materials:**

* Six cages labeled with a single characteristic: Red, Blue, Big, Little, Horns, and Hair
* Wild things:
	+ Each wild thing should be 4” x 4” in size.
	+ Make enough wild things so that each child has a chance to find one.
	+ Make one – three of each following type of wild thing (depending number of children):
		1. Red big
		2. Red with wild hair
		3. Red with horns
		4. Red little
		5. Blue big
		6. Blue with wild hair
		7. Blue with horns
		8. Blue little

**Steps to the Game (Part 1):**

1. The wild things are hidden around the room without the children being present. Tell the children there are wild things hiding in the room and that they each need to find one and put it in its cage.
2. The children find the wild things and put them in a cage of their choice.
3. Adult starts the conversation by saying, “Wow, we have done a great job!” All the wild things have been put into a cage. Let’s see if every wild thing is where it belongs.”
4. Adult ask the child, “(Child’s Name), why did you put your wild thing in this cage?”
5. Child provides their reasoning. (Example: “My wild thing has horns.”)
6. The game continues with the children providing their reasoning for the cage placement of each wild thing.
7. If you want to play again, you can ask the children who found a wild thing the first time around to hide it again while the other children hide their eyes.

**Steps to the Game (Part 2):** (This requires another adult to be in the room to help with the set-up.)

1. Adult 1: Ask children if they would like to play another game of “Guess My Cage.”
2. Adult 2: Says to Adult 1, “You go outside and we will arrange things; you’ll have to figure it out by yourself.”
3. Adult 1 leaves the room and the children work with Adult 2 to quickly decide which cage they want to use. For our example, they choose the red cage. They remove the wild things from the chosen cage and put away the other cages, redistributing the wild things amongst themselves.
4. Adult 2 shows the children the red card and tells the children to remember this information and not to give the answer away. Adult 2 removes the red card (a child can sit on it) so that Adult 1 cannot see it.
5. Adult 1 returns to the room and might say something like, “I wonder which cage that is. Will you tell me?”
6. Children usually are very excited and say, “NO WAY.”
7. Adult 2 says, “No, we won’t tell you, but we will give you some clues.” Adult 2 calls on a child to go first.
8. Child picks up the big, red, hairy wild thing and places it in the unlabelled cage.
9. Adult 1 says, “So, does your wild thing belong in the cage?” Child nods or says “Yes.” Adult 1 calls on another child holding a wild thing and asks if it belongs in the cage.
10. Process continues with Adult 1 asking each child to either place its creature in or outside the cage. Periodically during the process, Adult 1 verbalizes their thinking about why the animals are either in or out of the cage. For example, “I thought it was hair, but this Wild thing has no hair and he is in the cage; then I thought it was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, etc.
11. Continue the process until all red wild things are inside the cage and all the others are outside the cage; then Adult 1 shares their guess with the children.

The important thing is verbalizing reasoning/thinking as you go along. Children love to try and fool the adult. After this game has been played MANY times throughout the year, the children will begin to understand the thinking and be able to come up with the solution as well. Once they are able to “share their reasoning,” they can become the problem solver as well. If you turn it over to the children too soon they will make random guesses, missing the intention of the game which is to have them think things through and come up with a solution.

**Options:**

* Read the book *The Wild Things* by Maurice Sendack before playing the game. Have children make a wild thing on either red or blue paper with one of the attributes listed above.
* Play the game in a smaller group. This might work well the first time you play it so the children can clearly see how it works.