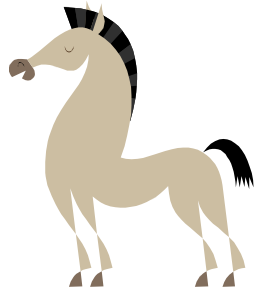


Old MacDonald's Counting Farm



Suggested Group Size

Individual or Small Group

Objective(s)

The children will count and compare quantities of objects in sets.

Activity

Children will sort objects, count objects, and compare sets of objects.

Targeted Florida Early Learning and Developmental Standards for Four-Year-Olds

- **V. Cognitive Development and General Knowledge**
 - **A. Mathematical Thinking**
 - **A.a. Number Sense**
 - **A.a.2.** Shows understanding of how to count and construct sets
 - **A.a.2.a.** Child counts sets in the range of 10 to 15 objects.
 - **A.a.2.b.** Child constructs sets in the range of 10 to 15 objects.
 - **A.a.3.** Shows understanding by participating in the comparison of quantities
 - **A.a.3.a.** Child compares two sets to determine if they are equal.
 - **A.a.3.b.** Child compares two sets to determine if one set has more.
 - **A.a.3.c.** Child compares two sets to determine if one set has fewer.

Materials

- Assorted farm animal counters or other farm animals in various colors and sizes
- Plastic bag (or other container), one per child
- Counting Mats, two per child

Procedures

Day 1

1. Introduce the lesson by showing children that we can sort (categorize) farm animals in many different ways. Demonstrate, with counters, how you could put all of the red animals together and all of the blue animals together, or all of the cows could be in one set and all of the ducks in another set. Another way is to sort so that all of the adult (large) animals are together and all of the baby (small) animals are together.
2. Provide an assortment of animal counters for the children to sort. Ask them to sort the counters they choose into two sets. They could choose two colors, two types, or two sizes.
3. Discuss how the groups were sorted, whether by type, size or color.
4. Save each child's two sets in a plastic bag (or other container) for the next day. It's okay to put each child's two sets in one bag, because they will be able to sort it the next day.

Day 2

5. Ask the children to place each of their two sets on a counting mat. (See sample on last page of the lesson plan.)
6. Count each set with each child, pointing to each object while counting, and repeating the last number at the end of counting the set (e.g., "...six, seven, eight. We have eight in this set.").
7. Lead the group in comparing quantities of different sets.
 - a. Which group has the most?
 - b. Which group has the least?
 - c. Are there any groups that are equal in number?
 - d. Which set has a lot more than this set (of two)?
8. Discuss how the comparisons would change if grouped differently. If the counting mats are used, different counting mats can be slid next to one another to compare sets.
 - a. "Juan and Margot both have sets of blue and yellow animals. What if we combined their blue and yellow animals? Would there be more blue than yellow? Would there be more yellow than blue animals? Would the groups be equal?"
 - b. "I notice that Chante has ten cows and Max has four cows. Which set of cows is more? Which set of cows is less? Are the sets equal?"

Day 3

9. Using farm animal counters and counting mats, ask children to construct sets in different quantities up to 15. If children haven't had much experience constructing sets, start with sets of smaller numbers first, in the one to five range. After they construct their set, count with them to confirm the quantity of the set.
 - a. "Can you make a set of ten cows?"
 - b. "Make a set of eight red animals."
 - c. "What color of animal do you want to use? Make a set of twelve."

Adaptations

- For children who haven't had much experience sorting, demonstrate only one way to sort, and ask them to sort in the same way. If you demonstrate sorting by color, then ask them to also sort by color.
- For children who haven't had much experience with counting sets or constructing sets, start with smaller of numbers one to five. Once children are proficient with these smaller numbers, increase the size of the sets being worked with.
- Use pictures of animals instead of counters or other three-dimensional animals. Children should have many experiences using objects before trying to sort and create sets with pictures.
- If using larger farm animals, typically found in the block area, create large Counting Mats using masking tape to make grids on the floor, or sidewalk chalk to make grids on the sidewalk.

Extensions

- Post photographs of various farm animals near the easel for children to use as reference when they paint. If children paint the same type of animal, display the paintings grouped by type of animal. These sets of paintings can be counted and compared.
- Hatch chicken eggs in an incubator. Choose more than one type of egg to hatch, and resulting chicks can be counted as a set, or if chicks have different characteristics (e.g., color), the sets of chicks can be counted.
- Go on a field trip to a farm. Count how many of each type of animal you see. Keep track, and upon return to the classroom, create a graph. Each type of animal (set) can be counted and then children can compare sets (each type of animal).
- Add related materials to classroom centers:
 - **Blocks:** Add farm animals to block play for additional sorting. Include "pens" to sort animals into, which could be made with blocks, shoe boxes, plastic strawberry baskets, plastic or wooden fences, etc.
 - **Reading/Literacy:** Include farm animal books and farm counting books in library, science area, blocks, and other areas of the classroom.

Checking for Understanding

Children will demonstrate their understanding of the lesson by:

- counting sets of animal counters
- creating (constructing) sets of animal counters
- comparing quantities in each set
- using comparison terminology (more, less, equal).

Related Standards for Four-Year-Olds

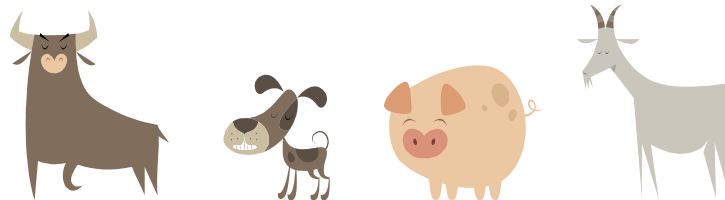
- **II. Approaches to Learning**
 - **A. Eagerness and Curiosity**
 - **A.1.** Shows curiosity and is eager to learn new things and have new experiences

Related Standards for Four-Year-Olds (continued)

- **II. Approaches to Learning**
 - **B. Persistence**
 - **B.1.** Attends to tasks for a brief period and seeks help when needed
 - **C. Creativity**
 - **C.1.** Approaches daily activities with creativity
 - **D. Planning and Reflection**
 - **D.1.** Shows initial signs of planning and learning from their experiences

- **IV. Language, Communication, and Emergent Literacy**
 - **A. Listening and Understanding**
 - **A.1.** Increases knowledge through listening
 - **A.1.a.** Child shows understanding by asking and answering relevant questions, adding comments relevant to the topic, and reacting appropriately to what is said.
 - **A.2.** Follows multi-step directions
 - **A.2.a.** Child achieves mastery of two-step directions and usually follows three-step directions, with teacher support and multiple experiences over time.
 - **C. Vocabulary**
 - **C.2.** Shows increased vocabulary to describe many objects, actions, and events
 - **C.2.a.** Child uses a large speaking vocabulary, adding new words weekly.
 - **E. Conversation**
 - **E.2.** Initiates, ask questions, and responds to adults and peers in a variety of settings
 - **E.2.b.** Child provides appropriate information for the setting (e.g., introduces himself or herself, requests assistance, answers questions by providing name and address to a police officer or other appropriate adult).

- **V. Cognitive Development and General Knowledge**
 - **A. Mathematical Thinking**
 - **A.a. Number Sense**
 - **A.a.5.** Counts and knows the sequence of number names (spoken)
 - **A.a.5.a.** Child counts and recognizes number names (spoken) in the range of 10 to 15.
 - **B. Scientific Inquiry**
 - **B.a. Investigation and Inquiry**
 - **B.a.2.** Examines objects and makes comparisons



Counting Mat

Make two copies of this mat for each child.
Use the mats when sorting small objects into sets and counting sets.
