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**Focused Curriculum Plan
ECE 312- 1800**

Curriculum Topic: Counting

Title of Activity: What Time is it Ms. /Mr. Fox?



Curriculum Topic: Counting

STEP 1: CHOOSE A DEVELOPMENTALLY AND CULTURALLY APPROPRIATE CURRICULUM TOPIC

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1. Will this topic allow for **active, constructive learner participation and involvement**? Explain.
 - Yes, this topic will let kids be active and involved. The game has them moving counting, which helps them learn better. They get to touch the connectors and work together, making it fun and engaging. For example; the teacher and student will have to stand on opposite ends of the room then the students will begin the game by asking what time it is Ms Fox. When the teacher responds that it is 5 o'clock, students will have to actively participate and walk towards the correct steps and friend connectors. Additionally, students can also count and touch the connectors. The active participation is very engaging and fun for children that are 4 to 4.5 years old.

2. Will this topic foster **social interaction**? Explain.
 - Yes, this topic will help kids interact with each other. They will talk and work together during the game, which builds friendships and teamwork. It makes learning fun and social. For example; the children and teacher will interact by asking and responding to each other. Students will start the game by asking what time it is Ms Fox. Then the teacher will interact and respond that it is 7 o'clock, prompting students to take steps together up to the correct number of friend-connectors. Asking the question together and walking together fosters social interaction between peers and teachers.

3. Will this topic be **meaningful** to your learners? How does it connect to **their** real world? Explain.
 - Yes, this topic will be meaningful to learners. It connects to their real world by using counting in a fun game. They can see how numbers are used in a play and everyday life, making learning more relevant and exciting for them. For example, the teacher says "3 o'clock," kids can relate that to activities they do at that time, like snack time or playtime. The game also involves physical movement, which helps reinforce counting as they take steps towards the connectors. This way, they not only learn numbers but also understand how time affects their daily lives, making the lesson both fun and relevant.

4. Does the topic allow learners to **connect to prior knowledge**? Explain.
 - Yes, This topic allows learners to connect to prior knowledge. Kids already understand numbers and time from their daily lives, like counting or knowing when it's lunchtime. When they play "What Time Is It, Mr/Ms. Fox?",

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they can relate times like “4 O’clock” to their experiences, such as finishing a game. This helps make the new concepts more meaningful and engaging for them.

5. Will the topic allow learners to **develop problem-solving strategies** and **be creative**? Explain.

- Yes, they can develop problem solving strategies by playing the game, which can be when they connect the verbal quantity to counting the steps (the lines) while students are playing the game and when they would need to stop at the corresponding quantity. They can also be creative when they are allowed to touch and count the friend connectors.

6. Will the topic allow learners to **engage in self-regulation** and **be reflective**? Explain.

- Yes, counting will allow learners to engage in self regulation by walking as a team, working as a team when interacting with the friend connectors. For example, they will also be able to practice turn taking between when the teacher says the time (number of steps to take) and when it is their turn to walk. It will also be reflective by allowing them to build confidence, and self-monitoring skills when they count the friend connectors to check if they have counted to the number correctly.

7. Will the topic help learners to **build on/change their current understanding**? Explain.

- Yes, the topic will help learners build on their current understanding with counting by remembering previous counting experiences, and expand their cognitive skills as they will be able to repeat the numbers as they count. Additionally, they will be able to use the touching of the friend connectors to solidify and build their memory on counting. For example, when they are touching their friend-connectors, they are able to count the number of connectors students are at.

8. Does the topic allow learners **to gain deeper knowledge of general principles and explanations** of the world? Explain.

- Yes, learners will be able to gain deeper knowledge of general principles and explanations of the world by fostering early mathematical thinking, connecting it with time, days, and exploring cause and effect when adding. For example, when the students are asked “it is 7 o’clock”, they will be able to count to 7.

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9. Can children use the knowledge gained through this topic in **meaningful real world situations**? Explain.

- Yes, they can use the knowledge gained to help them link numbers to objects, movements, and quantity in all real life situations. When students walk steps towards the teacher and count the friend-connectors, they are gaining knowledge necessary for daily life. For example, the knowledge towards counting extends to grocery shopping for items in the store (ex. counting for items in your shopping cart to make sure you have everything you need), counting the amount of one dollar bills you need to make a purchase and so much more. This knowledge gained from this math game extends to all areas of daily life.

10. Does the topic provide opportunities for children to **practice and gain mastery**? Explain.

- Yes, this activity allows for repetition during the counting, movement and sensory-tactile phase of the game (when children take a number of steps forwards and count the people's connectors). This activity will help learners repeatedly practice counting both during the step-taking phase (ex. walking up three steps) and during when students count the number of friend-connectors to check if they took the correct number of steps as the fox said to take.

11. Can you present this topic in meaningful ways for diverse children with **developmental and individual differences**? Explain.

- Yes, this game is meaningful for all of the children in our class profile, given that they all come from diverse backgrounds and languages where it involves a multisensory approach that is immersive for students while addressing each individual need. The movement portion of the game addresses kinesthetic learners who may need to focus on gross motor development, while the counting and teacher announcing of "it is 6 o'clock" addresses auditory learners to process that "6 o'clock" means to take 6 steps for example. Additionally, the touching of the friend connectors address sensory-tactile learners' needs, helping them understand that touching (and counting) the concept of "6" for example.

12. Will this topic be **interesting and motivating to the learners**? Does it allow for **autonomy/choice**? Explain.

- Yes, this game is immersive, and requires active student participation. It could be made to allow students to take turns when deciding who to act as the fox when playing. They will be able to exercise autonomy and choice-making skills when deciding the number of steps students should take at each round. For example, when

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students are asking the teacher about “what time is it, Ms.Fox?”, they are actively a part of the game, making it motivating to keep practicing the game, for example. Additionally, their interest is extended when they are able to physically walk the steps and touch friend-connectors. Afterwards, students can decide who to be “Ms.Fox” (or Mr. Fox), exercising their ability to make choices.

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STEP 2: LEARN THE CONTENT:

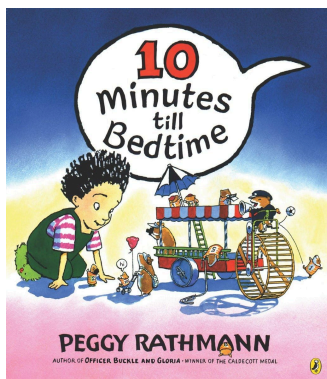
1. Brainstorm with your colleagues. What information do you (the teachers) already know about this topic? List everything you can think of:

- Children between 4 to 4.5 years old learn best through play and hands-on activities.
- Learning about math in early childhood includes building on foundational skills, such as counting, and one-to-one correspondence in quantification.
- Children need to experience learning through touching hands on manipulatives before they can cognitively connect to the concept of counting.
- Call and response games help strengthen knowledge in math skills.
- Social interactions between groups of children and teachers help build collaboration, self regulation, turn taking, and problem-solving skills.
- Manipulatives and visual cues such as the friend-connectors target children's different learning styles in order to help build understanding in counting skills.
- Through repetition, students are able to gain more confidence in their counting abilities, which also helps keep them motivated.

2. Gather information from various sources of research. List at least 3 resources for each of the following:

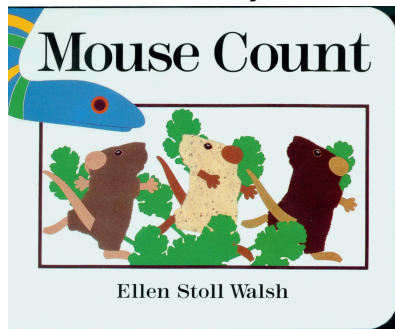
A. Children's literature:

- **"Ten minutes till Bedtime" by Peggy Rathman**

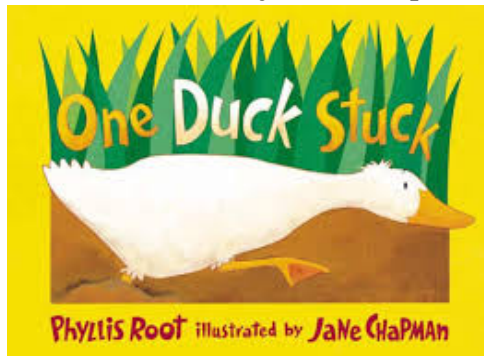


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- **“Mouse Count” by Ellen Stoll Walsh**



- **“One Duck Stuck” written by Phyllis Root and illustrated by Jane Chapman**

**B. Website Information**

- **“The Imagination Tree”** - website talks about the importance of learning math through play and offers activities:
<https://theimaginationtree.com/20-counting-activities-preschoolers/>
- **“Erikson Institute Early Math Collective”** - website explains the big ideas of counting, and the milestones in understanding mathematical concepts in early childhood:
<https://earlymath.erikson.edu/why-early-math-everyday-math/big-ideas-learning-early-mathematics/big-ideas-of-counting-numbers-what-is-counting/>

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- **“The Parents League of New York”** - website describes the stages of counting for children between the of 3 to 5, starting with counting to 10 then later counting in any order:
<https://www.parentsleague.org/blog/how-preschoolers-learn-early-math-skills-understanding-developmental-sequence>

C. Library Identified Resources

- **“Developmentally appropriate practice in early childhood programs: Serving children from birth through age 8 (3rd Edition, 2010)”** by NAEYC. It provides best practices in teaching mathematical concepts in early childhood.
- **“The young child and mathematics (2000)”** by Copley, J. V. It talks about the foundation for counting skills.
- **Piaget’s theory of intellectual development: An introduction (Prentice Hall, 1988)”** by Ginsburg, H. P., & Opper, S. The book is based on Piaget’s description on how children develop counting and number sense.

3. What did you *learn* from your research?

I learned that counting is the first major foundation in learning about math when it comes to early childhood. Counting expands beyond just mathematics, it is an entry point to cognitive development, understanding the order of numbers, numbers, sense, and relationships between how numbers work with each other. Counting is a universal skill, to which it grows and develops in stages just like children do. It first starts from quantifying and counting small numbers or objects then later expanding to much higher quantities such as 20 items then later understanding cardinality and how the last number counted is the total quantity. Language is also very important in the skill of counting, because children have to learn number words in order to draw connections to how numerical sequencing works. This also depicts how children during pre-operational stages may appear predominantly in concrete and literal ways at first, then with practice later understanding abstract thinking through the skill of counting. Additionally, it is developmentally appropriate to practice this skill via motor (ex, gross motor or fine motor) and play based activities since children predominantly learn best through play.

4. What *misinformation* did you find in your original ideas?

I realized I thought kids only learn math from lessons, but they actually learn better through play and social interactions. So, I need to change my approach. Additionally, I originally thought that math concepts such as counting would be way too hard for the children to understand. For example, I used to think that children cannot count past

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number 10 and do not understand the concept of quantity. Hence, I thought that math should not be taught to kids until they were in kindergarten and above.

STEP 3: IDENTIFY KEY CONCEPTS:

What are the Big Ideas/Overarching Questions to be explored in your topic (one sentence for each idea/question) The Big Ideas should be connected to deep understandings of the general principles and explanations of the world.

1. How does counting help us understand and interact with the world around us?
2. In what ways can we use numbers to represent real-life situations, like movement or time?
3. Why is it important to work together and communicate when solving problems in math?

Identify and list **10** key vocabulary terms connected to this topic:

- Slog
- Plop
- Trudge
- Stuck
- Slither
- Escape
- Trap
- Creep
- Peek
- Muck

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STEP 4: CONNECT YOUR TOPIC TO THE CONTENT AREAS.**WHERE IS THE MATH?**

1. Choose 3 of the following math content areas, and describe the Big Ideas and Enduring Knowledge that connects your topic to this content area:

- a. Number & Operations
- b. Geometry & Space
- c. Measurement
- d. Algebraic Thinking (Patterns, Balance, More/Less, Same/Different, Equal/Not Equal)
- e. Data Analysis & Probability (Collecting Information, Making Tallies, Sorting, Graphing)

2. Choose 3 and List developmentally appropriate ways children can learn math in each of the following Learning Centers:

- a. DRAMATIC PLAY (Housekeeping, Dress-up, Role Play)
- b. TABLE ACTIVITIES (Manipulatives, Puzzles)
- c. VISUAL ARTS (Drawing, Painting, Sculpting, Writing)
- d. MUSIC/MOVEMENT
- e. SAND AND WATER PLAY
- f. BLOCK BUILDING
- g. SCIENCE/DISCOVERY
- h. LIBRARY/LITERACY
- i. WOODWORKING/CARPENTRY
- j. COMPUTERS/TECHNOLOGY

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WHERE IS THE SCIENCE?

1. Choose 3 of the following science skills/content areas, and describe the Big Ideas and Enduring Knowledge that connects your topic to this skill/content area:

- a. Observing
- b. Predicting, Inferring, Hypothesizing
- c. Communicating Information
- d. Life Science Content
- e. Physical Science Content
- f. Ecological/Environmental Science Content
- g. Health & Nutrition Content

2. Choose 3 and List developmentally appropriate ways children can learn science in each of the following Learning Centers:

- a. DRAMATIC PLAY (Housekeeping, Dress-up, Role Play)
- b. TABLE ACTIVITIES (Manipulatives, Puzzles)
- c. VISUAL ARTS (Drawing, Painting, Sculpting, Writing)
- d. MUSIC/MOVEMENT
- e. SAND AND WATER PLAY
- f. BLOCK BUILDING
- g. SCIENCE/DISCOVERY
- h. LIBRARY/LITERACY
- i. WOODWORKING/CARPENTRY
- j. COMPUTERS/TECHNOLOGY

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WHERE IS THE SOCIAL STUDIES?**1. Choose 3 of the following content areas, and describe the Big Ideas and Enduring Knowledge that connects your topic to this content area:**

- a. Psychology & Sociology (Self-identity, How people think and act)
- b. Political Science (How society works)
- c. Anthropology (How people live in the world)
- d. History (How people and societies change over time)
- e. Geography (A sense of place)
- f. Economics (A sense of fairness and equality)
- g. Philosophy (Values for living in the world: truth, right and wrong)
- h. Law (Rules, rights and responsibilities)

2. Choose 3 and List developmentally appropriate ways children can learn social studies in each of the following Learning Centers:

- a. DRAMATIC PLAY (Housekeeping, Dress-up, Role Play)
- b. TABLE ACTIVITIES (Manipulatives, Puzzles)
- c. VISUAL ARTS (Drawing, Painting, Sculpting, Writing)
- d. MUSIC/MOVEMENT
- e. SAND AND WATER PLAY
- f. BLOCK BUILDING
- g. SCIENCE/DISCOVERY
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Step 5: Implementing the Curriculum Topic:

Launch/Introduction (How you begin the curriculum topic):

Describe 1 activity:

1.

Meeting Time (How you sustain and expand the topic):

Describe 1 activity:

1.

Creative Arts Activities (Visual Arts, Music, Dance, Drama):

Describe 1 activity:

1.

Read Aloud: Find 2 picture books: 1 fiction and 1 non-fiction):

Describe a literacy extension activity for each book (Include bibliography):

1.

2.

Shared Reading (Songs and/or Poems) Describe 1 activity using either a poem or songs:

(Include a separate document of the poems or song used)

1.