The Animatronic Accountant: Counting the Pizza and Power (Grade 1 Math)

Materials Needed

- Small manipulatives (20-30 pieces): These can be actual FNAF toys, printed cutouts of the animatronics (Freddy, Bonnie, etc.), or generic items like blocks or tokens labeled as "Power Units" or "Pizza Slices."
- One set of 20-sided dice or two standard 6-sided dice.
- Whiteboard, chalkboard, or paper for drawing and writing equations.
- Crayons or markers.
- "Security Camera Log" template (simple paper divided into four sections).
- Optional: Ten-frames printed on paper (two frames for numbers up to 20).

Learning Objectives (Student-Friendly)

By the end of this shift (lesson), you will be able to:

1. Successfully add two numbers together to find the total number of animatronics (up to 20).
2. Subtract numbers to figure out how many power units are left (up to 20).
3. Use a ten-frame to show numbers 11 through 20 as "one group of ten" and some "ones."

Success Criteria

You know you are successful when you can:

- Correctly solve 4 out of 5 addition and subtraction problems.
- Accurately model numbers using manipulatives (showing tens and ones).
- Explain the strategy you used to solve a problem (e.g., counting on, counting back).

Lesson Structure

Part 1: Introduction – The Night Shift Begins (10 minutes)

Hook: Security Breach!

Educator Prompt: Welcome to the Night Shift! We are the security guards at Freddy Fazbear's Pizza. Our job isn't just watching cameras; we have to manage resources! If we lose too much power, the animatronics might get too close. Did you know that keeping track of all the characters, pizza, and power requires fast math? If we use 7 power units in the first hour and 5 power units in the second, how much power have we used in total? We need to calculate that fast!

Review and Connection

- **Discussion:** What happens if the power runs out? (Connect consequences to the need for accurate calculation.)
- **Stating Objectives:** Today, we are focusing on mastering addition and subtraction up to 20,

which is critical for budgeting our resources!

Part 2: Body – Managing the Pizzeria Inventory

A. I Do: Modeling Power Management (15 minutes)

Concept Focus: Addition and Subtraction within 20

Modeling Steps (Educator Demonstrates):

1. **Modeling Addition:** "Our initial power supply is 10 units. Foxy requires 4 additional units for his show. How many power units do we have now?"
   - (Educator places 10 tokens/manipulatives on the table, then adds 4 more.)
   - (Educator writes the equation: $10 + 4 = 14$.) "We count on from 10: 11, 12, 13, 14. We have 14 power units."
2. **Modeling Subtraction:** "We started the night with 18 slices of pizza for the party. Chica sneaks 6 slices. How many slices are left?"
   - (Educator counts out 18 manipulatives.)
   - (Educator physically removes 6 manipulatives.)
   - (Educator writes the equation: $18 - 6 = 12$.) "We count back or use the ones place: 8 minus 6 is 2. The ten stays the same. We have 12 slices left."

B. We Do: Security Camera Scans (20 minutes)

Concept Focus: Place Value (Tens and Ones) and Grouping up to 20

Activity: Security Camera Ten-Frames

1. Provide the learner with two ten-frames (or draw them). Explain that the first ten-frame is the "Main Stage" and the second is the "Back Room."
2. **Roll and Count:** The learner rolls the two six-sided dice (or one 20-sided die if available). Let's say they roll an 8 and a 5 (total 13).
3. **Guided Practice:** The learner counts out 13 manipulatives (e.g., "Animatronic Cutouts").
4. **Place Value Task:** "Show me 13 on the ten-frames."
   - (Learner should fill the first ten-frame completely.)
   - (Learner places the remaining 3 in the second ten-frame.)
   - **Educator reinforces:** "Look! 13 is one full group of ten animatronics on the Main Stage, and 3 animatronics hiding in the Back Room." (1 ten and 3 ones).
   - Repeat this exercise 3-4 times, focusing on numbers 11 through 20.

     Formative Assessment Check-In: Ask the learner to verbally describe 17 using tens and ones (e.g., "17 is 1 ten and 7 ones").

     ### C. You Do: Freddy's Financial Records (15 minutes)

     ### Concept Focus: Independent Problem Solving and Equation Creation

     ### Activity: The Power Log Story Problems

       1. The learner uses the manipulatives and the dice/numbers to create their own "Night Shift" story problems.

---

2. **Instructions:** Choose a starting number between 10 and 20. Write a story about the animatronics or power units using addition or subtraction.
3. **Example Prompt (if needed):** "There were 15 balloons left from the party. Bonnie popped 7 of them. How many are left?"
4. The learner writes the story, the equation ($15 - 7 = \_\_$), and solves it using any method they choose (counting back, using manipulatives, drawing).
5. Learner creates 3 independent story problems and solves them.

Success Criteria Check: Ensure the learner's equations are written clearly and the answers are accurate based on their chosen method.

Part 3: Conclusion – Clocking Out (10 minutes)

Recap and Review

Educator Prompt: Great job! The night shift is over, and we survived thanks to our math skills! Let's quickly check our logs.

1. **Quick Q&A:** If you see 19 balloons, how many groups of ten do you have? (1) How many ones? (9)
2. **Challenge Question:** If Foxy is chasing you and you have 14 seconds of power left, but you use 5 seconds to close the door, how much power is left? ($14 - 5 = 9$).
3. **Learner Reflection:** Ask the learner what method of solving they found easiest today (using fingers, using manipulatives, drawing pictures).

Summative Assessment: The Final Calculation

Provide two addition problems and two subtraction problems for the learner to complete independently on paper, without manipulatives if possible (but allow them if needed for scaffolding).

- $11 + 6 = \_\_\_$
- $19 - 8 = \_\_\_$
- $7 + 12 = \_\_\_$
- $16 - 9 = \_\_\_$

(Check solutions against the success criteria. If 3 out of 4 are correct, the objective is met.)

Differentiation and Adaptability

Scaffolding (For Struggling Learners)

- **Concrete Manipulation:** Require the use of the ten-frames and manipulatives for every single problem to keep visual representation of tens and ones solid.
- **Number Restriction:** Limit all addition/subtraction problems to numbers within 10 before gradually increasing to 20.
- **Counting On Strategy:** Always begin the addition problems by counting on from the larger number (e.g., for $3 + 12$, start at 12 and count on 3 more).

Extension (For Advanced Learners)

- **Missing Number Puzzles:** Introduce algebraic thinking by using missing addends (e.g., 5 + ___ = 18 or 20 - ___ = 7).
- **Three-Part Equations:** Challenge them to solve problems involving three numbers (e.g., Freddy brought 5 cupcakes, Bonnie brought 4, and Chica brought 3. How many total? 5 + 4 + 3 = 12).
- **Money Connection (Real-World Relevance):** Assign a monetary value (up to 20 cents) to the pizza or power units and ask them to calculate totals and change received.