

Solar Lesson Plan Format

Age Level: Preschool

Subject(s) Area: Math

Materials Needed: Sweet Tarts candy hearts, race to 50 worksheet, dice

Standards:

Code and description: **SED2.7** Work cooperatively with others and exhibit appropriate social behavior (e.g., use names, share, take turns, show respect).

MTH.1.1 Demonstrate an understanding that numbers are always in the same order: 1, 2, 3 (stable order counting principle), and that the order when counting objects does not affect the total (order irrelevance counting principle).

Objectives:

What will the students know or be able to do? At what Bloom's Taxonomy Level? To what accuracy?

TSW be able to **demonstrate** their understanding of counting to 50 at an 85% accuracy.

TSW be able to **apply** turn taking skills at a 95% accuracy.

Levels: Understanding-demonstrate; Applying-apply

Learning Activities:

Technology: none

Required Vocabulary: none

Opening Element: "So today we are going to play a game called Race to 50 using some candy hearts. Mrs. Voller had said you guys have played this before, so I want to check to make sure I understand this game."

Reflective Questions: "Let's say I am on the 8 spot and I roll a 4, where do I move my candy heart to?" (Check to make sure all students move the heart to the next row [12 spot]. "Do I count the number that I am already on?" (No, you are adding the number you roll to that number). Model rolling dice, then adding the next number to it.

Instructional Methods:

1. "Okay, so we are going to play this as a group and take turns rolling the dice and moving our candy hearts together. I'll start."
 - a. Roll dice and move to spot; proceed to let student to the left roll and add to that number
 - b. "Let's count out loud the number of places we move."
 - c. Ask prompting questions to students like, "____ just rolled a (3), what number will we be on now?"
 - d. "how many did we add to ____?"

- e. Once you get closer to 50 ask “how many more do we need to get to 50?”
- Guided Practice Strategies: Levels of scaffolding, used the “I do, we do, you do” method. I modeled examples of how to play the game prior to beginning the whole group activity. Then we all played as a group, rolling the dice and moving to the same spots. The “you do” portion is partially done when each student moves their candy piece on their own, but would be greater enforced if they played individually.
 - Independent Concrete Practice/Application: Moving their candy hearts individually allowed for some concrete practice, but if I would allow them to each play alone it would greater enforce the independent practice.
 - Classroom management/movement: We will be seated on the carpet for our small group.
 - Differentiation: Have lower level students seated next to me or higher level student so that they can ask for help. Allow students to sit on pockets, or lay down (allow for kinesthetic movers to move). Possibly turn this into a broken apart small group: higher students pair up to play quicker together; lower students group together and I focus my attention to help them). Could make this a complete individuals game so that each student can work at their own pace.

Wrap-Up: “Great job! We all made it to 50! You may eat your candy heart now and check out a different small group until time’s up.”

Assessment:

Formative: Formative assessment will be conducted through observing them and watching them move their candy piece for each roll of the dice.

Summative: Could do individual assessment of race to 50 in groups of 3 or 4 to make sure they are counting correctly.

Reflection:

This lesson went fairly well. Being my first lesson taught in a preschool classroom, I was doing a lot of experimenting to see what would work best with the students. My second group went a lot better than the first because I became more aware of what questions to ask and how to cue or prompt the students in the right direction. I did notice children in my first group watching me move my candy heart and then placing it in the correct spot. I helped them follow along and work through it by saying to the group, “right now we are on ____, let’s count 4... 1, 2, 3, 4. What number are we on now?” This helped students walk through the activity more easily. For future lessons, I would pay attention to how I group the students as well as considering let them each roll their own dice and play individually.

Age Level: Preschool

Subject(s) Area: Math

Materials Needed: Graphing worksheet, Spinner, Colored counting bears

SStandards:

Code and description: MTH.1.6 Demonstrates ability to compare quantities of objects

SED.2.7 Work cooperatively with others and exhibit appropriate social behavior (e.g., use names, share, take turns, show respect)

Objectives:

What will the students know or be able to do? At what Bloom's Taxonomy Level? To what accuracy?

TSW be able to **compare** which rows have more, less or the same number of bears at a 75% accuracy.

TSW be able to **demonstrate** appropriate social behavior by taking turns at a 95% accuracy.

Levels: Analysis: compare; Application: demonstrate

Learning Activities:

Technology: None

Required Vocabulary: Compare: look at the difference between the two

Opening Element: "Today we are going to use colored bears to fill out a graph. The goal of this game is to fill a color all the way to the top using the spinner. While we play we are going to compare the number of bears in each color row. "

Reflective Questions: "If I have 4 red bears and 2 green ones, how can I compare the two?" (The red has more; the green has less.) "So to compare we use words like more, less and the same."

Instructional Methods:

1. "We are going to each fill out a graph using the colored bears. I want you to count each time you add a bear to the colored row."
 - a. Give each student a graphing paper
 - i. "Which color do you predict will win?" (Let students answer)
 - b. Begin activity with student to the left
 - i. Have student say what color and how much they have
 - ii. Guide student to give the next student a turn
 - iii. Continue this method until a row in a student's graph is full
2. **Ask questions as each student takes their turn**
 - a. "Which color has the most bears on your graph so far?"
 - b. "Which color has the least bears on your graph so far?"
 - c. "How many (red/blue/green/yellow) bears are on your graph?"

- d. "Can you compare these two colors?" Allow them to answer then prompt them to use more/less/same if they did not.
3. **After a student fills the complete row, ask questions:**
 - a. "Which color did you predict would win? Was your prediction correct?"
 - b. "Which color had the next highest number of bears on the graph?"
 - c. "How many more bears would you need to add to this color to fill the row?"
 - d. "Did any of the colors have the same number of bears?"
 - e. "Which color did you spin the fewest times?"
 - f. "how many ___ bears would you need to have the same number as the ____ bears?"
 4. If time permits, have students compare their graphs
 - Guided Practice Strategies: Levels of scaffolding involves the "I do, we do, you do"; I model the initial comparison, we as a group do the activity as well as comparing each other's graphs, then each student will answer my questions during the activity (you do).
 - Independent Concrete Practice/Application: Although we are working in a small group, each individual gets independent practice with counting/color sorting/ comparing the bears.
 - Classroom management/movement: We will be sitting at either a table or the carpet.
 - Differentiation: Have students that may struggle sit on either side of the teacher for additional support. Seat higher level students next to those that struggle so that the students can model the action or assist their classmate.
 - Other ideas: Make the rows shorter for lower level students, and make rows longer for higher level students. Use more or less colored bears depending on level of student.

Wrap-Up: "Time to clean up, please take the graph to your cubby and put the bears back in the bin." If time permits, have students compare two colors prior to leaving.

Assessment:

Formative: How does your assessment show individual measurability? Based on observation of students working and their answers to my questions during the activity. Watching if the students take turns or not.

Summative: No summative assessment during this activity. I would consider having them count the total per row of a different graph for a summative assessment, making sure they use "more/less/same".

Reflection

My first group was a little slow to pick up on the activity and I believe it was because of the way I introduced it. My second group flowed very well and were easily engaged. Allowing students to sit the way they wanted helped with engagement and tolerance for kinesthetic movement. The students enjoyed this activity and should use it again. I need to remember to allow wait time for students to answer my questions.

Age Level: Preschool

Subject(s) Area: Math

Materials Needed: Light table, transparent colored counting bears

SStandards:

Code and description: MTH.5.2 Choose which strategies and thinking skills should be used when solving a problem

MTH.2.3 Recognize, duplicate, and extend simple patterns of objects, sounds, and movements using manipulatives.

Objectives:

What will the students know or be able to do? At what Bloom's Taxonomy Level? To what accuracy?

TSW be able to **assess** their pattern and choices by thinking out loud at an 80% accuracy.

TSW be able to **create** a pattern and **predict** which color will come next at a 75% accuracy.

Levels: Evaluating- assess; creating- create and predict

Learning Activities:

Technology: light table

Required Vocabulary: predict: being able to guess what will come next

Repeats: does the same thing over and over in an order

Opening Element: "Today we get to use the light table to make patterns and sort colors. Once we make a pattern I will ask you to predict, or guess, which color will come next."

Reflective Questions: lay out bears, blue, red, yellow, blue, red, yellow. "what is my pattern here?" "Right! So you can see patterns when something repeats in an order." "What color can you predict, or guess, will come next?" "How did you know blue would come next?"

Instructional Methods:

1. Make a pattern example "What if I have this pattern; what is my pattern? What can you predict will come next?" "How did you know that?" "How many colors are in this pattern."
2. "Now I want each of you to make a pattern with the bears; you can use any colors and as many bears as you want as long as it makes a pattern."
 - a. Allow students time to make their patterns
 - b. Ask each student to read their pattern, problem solve their way through it if they make a mistake and ask them to predict what will come next.

3. "Can we sort these bears by colors?"
 - a. Place one color of each bear in a spot on the light table and allow students to sort by color
- Guided Practice Strategies: Levels of scaffolding, uses "I do, we do, you do" because I modeled the first pattern and clarified what a pattern was as well as how to predict the next color. "We do" took place during the time that they answered my example pattern questions. The "you do" portion took place as they each made their own pattern and explained their thinking out loud to me.
- Independent Concrete Practice/Application: the individual practice takes place as they each have the opportunity to create their own pattern with the bears.
- Classroom management/movement: We will be seated at a table with about 4 students for the safety and proper use of the light table
- Differentiation: Could instruct lower level students to make a pattern with two colors, while upper level students use 3 or more colors. Could instruct the pattern to repeat once or more than twice. Having students think aloud and say their pattern helps auditory learners to hear the pattern, visual learners to see the pattern and tactile learners to hands-on make the pattern.

Wrap-Up: "Please create one more pattern using 2 colors and tell me which color will come next. When you are finished, I want you to leave your pattern and I will see if the next group can predict the next color. Thanks for working so hard with me!"

Assessment:

Formative: Formative assessment will be conducted when the students each create their own pattern and think out loud the process of making their pattern. This will also be conducted by observing them working and thinking quietly about how to make their pattern.

Summative: Could include having them create their own pattern and then grading them based on their explanation of the pattern and prediction of what will come next. They could also see a pattern I have already provided and then lay out what will come next to show that they understand patterns and predictions.

Reflection:

This lesson went very well for my group. They were all eager to use the light table and make patterns as well as sort the colored bears. The students understood this lesson right away, however slightly struggled with creating a pattern initially because they used so many bears. They all did very well thinking through their pattern aloud, which helped them to determine whether or not their pattern was correct. They enjoyed this activity, although it did not keep their interest long because after a few examples they easily completed patterns. When I noticed they started to lose interest in creating patterns, I brought back my lesson from the day before with comparing the number of bears. I had grabbed the same template and spinner I had used and laid the colored sheet on the light table. We played the comparison game for majority of the time and they did very well comparing the number of color bears (using same, tie, in the lead, more, less, zero). They also love predicting which color would get the most and win. I think that this was my best lesson for this portion of the Preschool practicum because the students were fully engaged and showing their level of understanding.