| Component | Math |
| :--- | :--- |
| Grade Level: | Kindergarten |
| Lesson Title: | How Many? Estimation |
| Focus: | Estimation |

## Materials:

White boards
Crayolas
Socks (for erasers)
Pencils

Activity at the end of the lesson plan
variety of containers
variety of items to use for estimation

Opening
State the objective
Today we are going to learn some math vocabulary-words that we need to use when we talk about numbers and shapes. We are also going to practice some of the math skills that we will need to be excellent at math.

## Gain prior knowledge by asking students the following questions

When you look at a group of items it is a good thing to make a good guess about how many items are there. Sometimes your guess may not be correct, but other times it will be very close to correct. What would be some of the things you would consider when getting ready to make a "guess"? (size, are the items stacked up, how much space do the items occupy). What is a strategy that you might use to make your "guess" better? (If you have more than one group, count a certain number, say10, and then compare the amount to the group of 10, and make a guess.) Guessing like this, when you have a strategy around what you are saying is called, ESTIMATION.

| Content (the "Meat") |  |
| :---: | :---: |
| Problem of the Day <br> Pete the dog is wearing a sock on each paw. How many socks does he have? Draw your answer. | *Activity $\rightarrow$ Teachable Moment(s) throughout |
| Fact Practice <br> Counting 1:1 Correspondence <br> Today you will be working with Kindergartners to reinforce number sense and counting. It is important that Kindergartners understand that when they say a particular number that the word or words they say actually represent a physical number of objects. Today, we will ask children to represent a certain number by drawing a domino and counting the dots on the domino and then representing that number of dots with another figure. <br> Directions: <br> 1. Divide children into pairs. <br> 2. Give each pair a set of Double 9 Dominoes and 2 white boards, pens/crayons. <br> 3. Each child selects a domino and then draws a picture of the domino that shows the number that is represented by the dots on the domino. | with students repeatedly. <br> Check in about what is happening and what they are thinking. <br> Take advantage of any teachable moments. <br> Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking. <br> Engage students in a "teach to learn" opportunity and |


| 4. When they have drawn the domino, child should represent the total of Dotson the domino with the same number of hearts ( $\boldsymbol{\bullet}$ ). | have the student become the teacher. |
| :---: | :---: |
| Math Vocabulary <br> Word for Today: estimate <br> Description: The mathematical term "estimate" means that you are going to make a guess about something, but you are going to make an educated guess. You have to have a strategy in order to make an educated guess. In order to do this you have to understand the attributes of the items you are estimating. You need to consider size, the space the items are in, how much space 10 of the items occupies. Once you have considered these things, then you are ready to make a guess. Work through this estimating with the children using several of the items that they will be using when they are participating in the activity, | It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. <br> When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). |
| Activity <br> Estimation <br> Learning how to estimate is a skill that children need to learn. In the beginning, estimation is often not very accurate, but as children practice they will get better and better at it. Ask children to share with each other times when they make estimations. (Will my sandwich fit into the bag? Will my clothes fit into the drawer? Will I get one or two more turns? How many steps is it to the water fountain?) Make a list of all of the things children mention. Explain that estimation is a way of making an educated guess. Ask the children to talk about how they make those guesses. <br> Have a variety of small objects: paper clips, nuts, noodles, macaroni, sugar cubes, difference types of cereal, and so on. <br> Have several sizes of containers. Begin with the smallest container and ask children to estimate how many or much of any one of the items that you have in front of you, the children believe will fit into the container. <br> Once the children have made the estimation, actually fill the container and then pour the item out and count them. <br> Compare the estimation with the actual amount. Discuss whether the item was higher or lower. Ask them how the information can help them to make the next estimation. <br> Continue until you have conducted the activity with all of the items and in a variety of containers. | Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center. |


|  | Closing |
| :--- | :--- |
| Say: | Review |
| - Please recap what we did today. |  |
|  |  |
|  |  |
| What did you like about what we did today in math? <br> What would you like to do more of the next time we do math? <br> What is a number? <br> What is a letter? <br> Are they the same? |  |

## Reflection (Confirm, Tweak, Aha!)

1. Ask students to think about what they did today in math.
2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
4. Ask them to comment on something (if anything) they have learned today that was brand new to them.

| Component | Math |
| :--- | :--- |
| Grade Level: | Kindergarten |
| Lesson Title: | How Much? Capacity |
| Focus: | Capacity |

## Materials:

White boards
Crayolas
Socks (use as an eraser)
Glue sticks

Activity at the end of the lesson plan
variety of containers (different capacities)
variety of items to measure capacity

## Opening

## State the objective

Today we are going to learn some math vocabulary-words that we need to use when we talk about numbers and shapes. We are also going to practice some of the math skills that we will need to be excellent at math.

## Gain prior knowledge by asking students the following questions

Have you ever poured water into a glass? What happens to the water if you don't stop pouring when you get to the top of the glass? When a glass is full we say that it is filled to capacity. Capacity means the biggest or maximum amount of water than can be placed in the glass. We can measure the capacity of a glass by pouring water into it. What other things can we do to measure capacity? What capacity can we measure beside water?

| Content (the "Meat") |  |  |
| :---: | :---: | :---: |
| Problem of the Day Look at the boxes below. Which box has the most hearts? |  | *Activity $\rightarrow$ Teachable Moment(s) throughout <br> During the lesson check in with students repeatedly. <br> Check in about what is happening and what they are thinking. |
| VVV\% | Vrv* マV¢ |  |
| A | B |  |
| Fact Practice Counting 1:1 Correspondence |  | thinking. <br> Take advantage of any teachable moments. |
| Today you will be working with Kindergartners to reinforce number sense and counting. It is important that Kindergartners understand that when they say a particular number that the word or words they say actually represent a physical number of objects. Today, we will ask children to represent a certain number by drawing a domino and counting the dots on the domino and then representing that number of dots with another figure. |  | Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of |
| Directions: |  | the group is thinking. |
| 1. Divide children into pairs. |  | When possible, engage |
| 2. Give each pair a set of Double 9 Dominoes and 2 white boards, pens/crayons. |  | students in a teach to learn opportunity and have the |
| 3. Each child selects a domino and then draws a picture of the domino that shows |  |  |

the number that is represented by the dots on the domino.
4. When they have drawn the domino, child should represent the total of Dotson the domino with the same number of happy faces (©).

## Math Vocabulary

## Word for Today: capacity

Description: Capacity is a word that means the amount something can hold. Have one container in the front that is larger than a 2 oz Dixie cup. Have several different items to measure capacity with. Have children predict how many Dixie cups full of an item can be used to fill the larger container. In other words, what is the capacity of the container in terms of cereal, sugar cubes, and anything else you have gathered.

## Activity

Discuss the concept of capacity with the children. Capacity is the amount that something can hold. For example, if you have a class, it can only hold so much water, so many Cheerios, and so much juice. If you go over capacity, things (water, Cheerios, juice) spill out. If you are under capacity, it means that you have room for more of whatever you are putting into the container.
Tell children that today you are going to look at the capacity of different types of containers. Have a variety of different containers of different sizes. You can always use cups, 2 oz. cups, 8oz. cups, 10 oz . cups, etc.
Have several different items to check. Cheerios, sugar cubes, and Trix would be good as they are different sizes and shapes. Start with a small cup. Ask students to "guess" how many Cheerios will fit into the cup. Repeat with sugar cubes and Trix. Ask students to think about whether there will be more or less sugar cubes and Trix, in comparison to one another.

Once you have done several checks on capacity, let students know that they are going to work in pairs, and that each pair will be able to select a container and what to fill it with.

Once that is done, students should go through the following steps with your guidance.
Guess how many items are in your container. Write that number on the white board.
Dump the items out and count them and see how many are in the container. Write that number on your sheet.

Repeat the activity with different items and different containers.

It is important to review academic math vocabulary often throughout the day.
Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

|  | Closing |
| :---: | :--- |
| Say: | Review |
| - Please recap what we did today. |  |
| - Did we achieve our objectives? |  |

## Debrief

What did you like about what we did today in math?
What would you like to do more of the next time we do math?
Can you count to 20? If yes, then do. If no, then how high can you go.
Are numbers and letters the same?

## Reflection (Confirm, Tweak, Aha!)

1. Ask students to think about what they did today in math.
2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
4. Ask them to comment on something (if anything) they have learned today that was brand new to them.

| Component | Math |
| :--- | :--- |
| Grade Level: | Kindergarten |
| Lesson Title: | How Much? Capacity |
| Focus: | Capacity |

## Materials:

White boards
Crayolas
Socks (for an eraser)
Paper
pencils
variety of containers with difference capacity
variety of items to measure

## Opening

## State the objective

Today we are going to learn some math vocabulary-words that we need to use when we talk about numbers and shapes. We are also going to practice some of the math skills that we will need to be excellent at math.

## Gain prior knowledge by asking students the following questions

Have you ever poured water into a glass? What happens to the water if you don't stop pouring when you get to the top of the glass? When a glass is full we say that it is filled to capacity. Capacity means the biggest or maximum amount of water than can be placed in the glass. We can measure the capacity of a glass by pouring water into it. What other things can we do to measure capacity? What capacity can we measure beside water?

## Content (the "Meat")

## Problem of the Day

Joni has 2 cookies. Millie has 0 cookies. How many more cookies does Joni have than Millie?

## Fact Practice

## Counting 1:1 Correspondence

Today you will be working with Kindergartners to reinforce number sense and counting. It is important that Kindergartners understand that when they say a particular number that the word or words they say actually represent a physical number of objects. Today, we will ask children to represent a certain number by drawing a domino and counting the dots on the domino and then representing that number of dots with another figure.

## Directions:

1. Divide children into pairs.
2. Give each pair a set of Double 9 Dominoes and 2 white boards, pens/crayons.
3. Each child selects a domino and then draws a picture of the domino that shows the number that is represented by the dots on the domino.
4. When they have drawn the domino, child should represent the total of dots on the

## *Activity $\rightarrow$ Teachable Moment(s) throughout

During the lesson check in with students repeatedly.
Check in about what is happening and what they are thinking.
Take advantage of any teachable moments.
Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.
When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.

| domino with the same number of triangles |  |
| :---: | :---: |
| Math Vocabulary <br> Word for Today: capacity <br> Description: Capacity is a word that means the amount something can hold. Have one container in the front that is larger than a 2 oz Dixie cup. Have several different items to measure capacity with. Have children predict how many Dixie cups full of an item can be used to fill the larger container. In other words, what is the capacity of the container in terms of cereal, sugar cubes, and anything else you have gathered. | It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. <br> When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). |
| Activity <br> Capacity <br> Discuss the concept of capacity with the children. Capacity is the amount that something can hold. For example, if you have a class, it can only hold so much water, so many Cheerios, and so much juice. If you go over capacity, things (water, Cheerios, juice) spill out. If you are under capacity, it means that you have room for more of whatever you are putting into the container. <br> Tell children that today you are going to look at the capacity of different types of containers. Have a variety of different containers of different sizes. You can always use cups, 2 oz . cups, 8oz. cups, 10 oz . cups, etc. <br> Have several different items to check. Cheerios, sugar cubes, and Trix would be good as they are different sizes and shapes. Start with a small cup. Ask students to "guess" how many Cheerios will fit into the cup. Repeat with sugar cubes and Trix. Ask students to think about whether there will be more or less sugar cubes and Trix, in comparison to one another. <br> Once you have done several checks on capacity, let students know that they are going to work in pairs, and that each pair will be able to select a container and what to fill it with. <br> Once that is done, students should go through the following steps with your guidance. <br> Guess how many items are in your container. Write that number on the white board. <br> Dump the items out and count them and see how many are in the container. Write that number on your sheet. <br> Repeat the activity with different items. (If the pair chose sugar cubes, then the second and third time the pair should try the Cheerios and the Trix. | Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center. |


|  |  |
| :---: | :---: |
|  | Closing |
| Say: | Review |
| $\bullet$ |  |
| $\bullet$ |  |

## Debrief

What did you like about what we did today in math?
What would you like to do more of the next time we do math?
What is a number?
What is a letter?
Are they the same?

## Reflection (Confirm, Tweak, Aha!)

1. Ask students to think about what they did today in math.
2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
4. Ask them to comment on something (if anything) they have learned today that was brand new to them.

| Component | Math |
| :--- | :--- |
| Grade Level: | Kindergarten |
| Lesson Title: | More on Capacity |
| Focus: | Symmetry |

## Materials:

White boards
Crayolas
Socks (for erasers)
Glue sticks

Activity at the end of the lesson plan
scoops for children
sugar or sand (something that can be scooped)

## Opening

## State the objective

Today we are going to learn some math vocabulary-words that we need to use when we talk about numbers and shapes. We are also going to practice some of the math skills that we will need to be excellent at math.

## Gain prior knowledge by asking students the following questions <br> Math Vocabulary

## Word for Today: capacity

Description: Capacity is a word that means the amount something can hold. Have one container in the front that is larger than a 2 oz Dixie cup. Have several different items to measure capacity with. Have children predict how many Dixie cups full of an item can be used to fill the larger container. In other words, what is the capacity of the container in terms of cereal, sugar cubes, and anything else you have gathered.

| Content (the "Meat") |  |
| :---: | :---: |
| Problem of the Day Copy the pattern below and then draw the next 3 shapes. | *Activity $\rightarrow$ Teachable Moment(s) throughout <br> During the lesson check in |
| Fact Practice <br> Counting 1:1 Correspondence <br> Today you will be working with Kindergartners to reinforce number sense and counting. It is important that Kindergartners understand that when they say a particular number that the word or words they say actually represent a physical number of objects. Today, we will ask children to represent a certain number by drawing a domino and counting the dots on the domino and then representing that number of dots with another figure. <br> Directions: <br> 1. Divide children into pairs. <br> 2. Give each pair a set of Double 9 Dominoes and 2 white boards, pens/crayons. <br> 3. Each child selects a domino and then draws a picture of the domino that shows the number that is represented by the dots on the domino. <br> 4. When they have drawn the domino, child should represent the total of dots on the | with students repeatedly. <br> Check in about what is happening and what they are thinking. <br> Take advantage of any teachable moments. <br> Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking. <br> When possible, engage students in a "teach to learn" |


| domino with the same number of circles | opportunity and have the <br> student become the teacher. |
| :--- | :--- |
| Math Vocabulary | It is important to review <br> academic math vocabulary <br> Word for Today: capacity throughout the day. <br> Description: Ask children to discuss capacity. Have them think about something they use <br> to measure capacity. Ask them how being able to measure capacity will be helpful to them <br> in the real world. Have children fill a container beyond capacity. Ask them to draw a <br> picture of what a container looks like when the container's capacity has been exceeded. <br> Complete the Vocabulary <br> notebook for each word. <br> When possible, have <br> students experience the word <br> (Ex. 4 students creating a <br> right angle, multiple students <br> acting out an equation). |
| $\quad$ Activity | Focus on having young <br> people "compete" in pairs or <br> small groups. Once a game |
| More on Capacity <br> Review the information that you discussed about capacity. Ask children what they <br> remember about capacity (the amount something can hold.) Today you are going to look at <br> scoops. Small scoops (those that measure 1 or 2 tablespoons) can be purchased at the <br> dollar store or perhaps you can invite children to bring one from home. <br> in the "When Homework Is |  |
| You will also need to have either sugar or sand to scoop, several different containers (can <br> be cups as used before). Ask students to estimate or guess how many scoops one of the <br> containers will hold. Then invite the children to come up and scoop into the container, <br> counting as you go. | Complete" center. |
| Divide students into small groups and give each group a scoop, several different containers <br> and either sugar or sand to scoop. |  |
| Have students estimate (guess) how many scoops will go into each container. |  |
| Students should then scoop into the container, counting them as they go. |  |
| Student record the number of scoops for each container. Pairs share the information they |  |
| have with others. |  |


|  | $\quad$ Closing |
| :--- | :--- |
| Say: | Review |
|  |  |
|  | Dlease recap what we did today. |
| What did you like about what we did today in math? |  |
| What would you like to do more of the next time we do math? |  |
| What is a number? |  |
| What is a letter? |  |
| Are they the same? |  |

## Reflection (Confirm, Tweak, Aha!)

1. Ask students to think about what they did today in math.
2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
4. Ask them to comment on something (if anything) they have learned today that was brand new to them.

| Component | Math |
| :--- | :--- |
| Grade Level: | Kindergarten |
| Lesson Title: | Measuring with Linker Cubes |
| Focus: | Measurement |

## Materials:

White boards
Crayolas
Socks (for erasers)
Glue sticks

Activity at the end of the lesson plan
string, paper clips, linker cubes

## Opening

State the objective
Today we are going to learn some math vocabulary-words that we need to use when we talk about numbers and shapes. We are also going to practice some of the math skills that we will need to be excellent at math.

## Gain prior knowledge by asking students the following questions

What do you know about measurement? What are some different ways that you can measure things? When do people measure you? How do we measure how old you are? What other ways do we measure time? How do we measure distance? What things would we measure through distance?

| Content (the "Meat") |  |
| :---: | :---: |
| Problem of the Day Look at the pictures. Which arrow is longer? How can you tell? | *Activity $\rightarrow$ Teachable Moment(s) throughout During the lesson check in with students repeatedly. |
| Fact Practice <br> Counting 1:1 Correspondence <br> Today you will be working with Kindergartners to reinforce number sense and counting. It is important that Kindergartners understand that when they say a particular number that the word or words they say actually represent a physical number of objects. Today, we will ask children to represent a certain number by drawing a domino and counting the dots on the domino and then representing that number of dots with another figure. <br> Directions: <br> 1. Divide children into pairs. <br> 2. Give each pair a set of Double 9 Dominoes and 2 white boards, pens/crayons. <br> 3. Each child selects a domino and then draws a picture of the domino that shows the number that is represented by the dots on the domino. <br> 4. When they have drawn the domino, child should represent the total of dots on the | Check in about what is happening and what they are thinking. <br> Take advantage of any teachable moments. <br> Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking. <br> When possible, engage students in a "teach to learn" opportunity and have the student become the teacher. |

domino with the same number of stars ( $\lambda$ ).

## Math Vocabulary

## Word for Today: measurement

Description: Measurement is a way we look at something to tell how much, how long, or how things can compare to one another. We measure distance (feet, yards, miles, meters or kilometers), time (analog and digital clocks), liquid (cups, ounces) and by using other strategies. We have to know how to do that. What are some of the ways we measure time? What are some of the ways we measure length or how far? What are the tools we use to measure with?

## Activity <br> Measurement

Discuss the concept of measurement. Explain that we can measure things in a variety of ways. Ask them how we measure a child's age (years, months). Ask them how we measure how far something is away. (miles, feet, yards). Tell students that these are called standard measures.

Tell students that we can measure items in other ways as well. (If you have linker cubes use those, if not, you can use paper clips that are clipped together.) In preparation for this class, cut a variety of different lengths of string. You will need to want 6-8 different lengths of string for each pair of students.

Demonstrate how you can compare the length of a string with the number of (linker cubes or paper clips). Show children how to count the number of cubes/paper clips, and how to record the number on the white board.

When children have measured the strings that have been cut in a variety of lengths (probably between 6 " and 20 ", encourage them to come and a longer piece of string and measure one another.

When pairs have finished, bring group back together to share what they have learned.

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).
Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

|  | $\quad$ Closing |
| :--- | :--- |
| Say: | Review |
|  |  |
|  | Please recap what we did today. |
| What did you like about what we did today in math? |  |
| What would you like to do more of the next time we do math? |  |
| What is a number? |  |
| What is a letter? |  |
| Are they the same? |  |

## Reflection (Confirm, Tweak, Aha!)

1. Ask students to think about what they did today in math.
2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
4. Ask them to comment on something (if anything) they have learned today that was brand new to them.

| Component: | Math |
| :--- | :--- |
| Grade Level: | Kindergarten |
| Lesson Title: | Measurig-Predict and Actual |
| Focus: | Graphing |

## Materials:

White boards Activity at the end of the lesson plan
Crayolas
Cereal

| Opening |
| :---: | :---: |
| State the objective |
| Today we are going to learn some math vocabulary-words that we need to use when we talk about numbers and shapes. |
| We are also going to practice some of the math skills that we will need to be excellent at math. |

## Gain prior knowledge by asking students the following questions

What do you know about measurement? What are some different ways that you can measure things? When do people measure you? How do we measure how old you are? What other ways do we measure time? How do we measure distance? What things would we measure through distance?

| Content (the "Meat") |  |
| :---: | :---: |
| Problem of the Day <br> Joe has 2 stars. Jorge has 3 stars. How many stars do they have all together? Draw a picture to show your answer. | *Activity $\rightarrow$ Teachable Moment(s) throughout During the lesson check in |
| Fact Practice <br> Counting 1:1 Correspondence <br> Today you will be working with Kindergartners to reinforce number sense and counting. It is important that Kindergartners understand that when they say a particular number that the word or words they say actually represent a physical number of objects. Today, we will ask children to represent a certain number by drawing a domino and counting the dots on the domino and then representing that number of dots with another figure. <br> Directions: <br> 1. Divide children into pairs. <br> 2. Give each pair a set of Double 9 Dominoes and 2 white boards, pens/crayons. <br> 3. Each child selects a domino and then draws a picture of the domino that shows the number that is represented by the dots on the domino. <br> 4. When they have drawn the domino, child should represent the total of dots on the domino with the same number of suns ( ) . | with students repeatedly. <br> Check in about what is happening and what they are thinking. <br> Take advantage of any teachable moments. <br> Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking. When possible, engage students in a "teach to learn" opportunity and have the student become the teacher. |


| $\quad$ Math Vocabulary | It is important to review <br> academic math vocabulary <br> Description: Measurement is a way we look at something to tell how much, how long, or <br> often throughout the day. <br> how things can compare to one another. We measure distance (feet, yards, miles, meters |
| :--- | :--- |
| or kilometers), time (analog and digital clocks), liquid (cups, ounces) and by using other Vocabulary <br> strategies. We have to know how to do that. What are some of the ways we measure <br> time? What are some of the ways we measure length or how far? What are the tools we <br> use to measure with? | notebook for each word. <br> When possible, have <br> students experience the word <br> (Ex. 4 students creating a <br> right angle, multiple students <br> acting out an equation). |
| $\quad$ Activity | Focus on having young <br> people "compete" in pairs or <br> small groups. Once a game <br> is mastered you can utilize it <br> in the "When Homework Is |
| More Measurement <br> Have children brainstorm a list of things that they would like to measure (book, desk, <br> calendar, pencil, eraser, etc.). Make the list on the board or on the chart. |  |
| Demonstrate how they can measure the item with string, marking the string at the exact <br> length. Then remind them that they will measure the string against a string of paper clips or <br> linker cubes. | Compler. |
| Ask students first to estimate how long something is going to be and record the estimation <br> first. Then working in pairs children should actually measure the items on the list. <br> When pairs are complete, they should meet with other pairs and share the information <br> they have found |  |


|  | Closing |
| :--- | :--- |
| Say: | Review |
| - |  |
| Please recap what we did today. |  |
| What did you like about what we did today in math? <br> What would you like to do more of the next time we do math? |  |

## Reflection (Confirm, Tweak, Aha!)

1. Ask students to think about what they did today in math.
2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
4. Ask them to comment on something (if anything) they have learned today that was brand new to them.

| Component | Math |
| :--- | :--- |
| Grade Level: | Kindergarten |
| Lesson Title: | Measuring-Predict and Actual |
| Focus: | Measurement |

## Materials:

White boards
Crayolas
Socks (use for erasers)
Glue sticks
decks of cards
Activity at the end of the lesson plan
Fruit Loops
small Dixie cups

## Opening

## State the objective

Today we are going to learn some math vocabulary-words that we need to use when we talk about numbers and shapes. We are also going to practice some of the math skills that we will need to be excellent at math.

## Gain prior knowledge by asking students the following questions

What do you know about measurement? What are some different ways that you can measure things? When do people measure you? How do we measure how old you are? What other ways do we measure time? How do we measure distance? What things could we measure through distance?

| Content (the "Meat") |  |
| :---: | :---: |
| Problem of the Day <br> Joe has 2 stars. Jorge has 3 stars. How many stars do they have all together? Draw a picture to show your answer. | *Activity $\rightarrow$ Teachable Moment(s) throughout <br> During the lesson check in |
| Fact Practice <br> Counting 1:1 Correspondence <br> Today you will be working with Kindergartners to reinforce number sense and counting. It is important that Kindergartners understand that when they say a particular number that the word or words they say actually represent a physical number of objects. Today, we will ask children to represent a certain number by drawing a domino and counting the dots on the domino and then representing that number of dots with another figure. <br> Directions: <br> 1. Divide children into pairs. <br> 2. Give each pair a set of Double 9 Dominoes and 2 white boards, pens/crayons. <br> 3. Each child selects a domino and then draws a picture of the domino that shows the number that is represented by the dots on the domino. <br> 4. When they have drawn the domino, child should represent the total of dots on the domino with the same number of squares ( $\square$ ). | with students repeatedly. <br> Check in about what is happening and what they are thinking. <br> Take advantage of any teachable moments. <br> Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking. <br> When possible, engage students in a "teach to learn" opportunity and have the student become the teacher. |


|  |  |
| :---: | :---: |
| Math Vocabulary <br> Word for Today: measurement <br> Description: Measurement is a way we look at something to tell how much, how long, or how things can compare to one another. We measure distance (feet, yards, miles, meters or kilometers), time (analog and digital clocks), liquid (cups, ounces) and by using other strategies. We have to know how to do that. What are some of the ways we measure time? What are some of the ways we measure length or how far? What are the tools we use to measure with? | It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. <br> When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). |
| Activity <br> More Measurement <br> Have children brainstorm a list of things that they would like to measure (book, desk, calendar, pencil, eraser, etc.). Make the list on the board or on the chart. <br> Demonstrate how they can measure the item with string, marking the string at the exact length. Then remind them that they will measure the string against a string of paper clips or linker cubes. <br> Ask students first to estimate how long something is going to be and record the estimation first. Then working in pairs children should actually measure the items on the list. When pairs are complete, they should meet with other pairs and share the information they have found. | Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center. |

## Closing

## Review

Say:

- Please recap what we did today.
- Did we achieve our objectives?


## Debrief

- What did you like about what we did today in math?
- What would you like to do more of the next time we do math?
- What are some things we can use to measure things with?


## Reflection (Confirm, Tweak, Aha!)

1. Ask students to think about what they did today in math.
2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
4. Ask them to comment on something (if anything) they have learned today that was brand new to them.

| Component | Math |
| :--- | :--- |
| Grade Level: | Kindergarten |
| Lesson Title: | Dominoes and Beans |
| Focus: | Graphing |

## Materials:

White boards
Crayolas
Socks (for erasers)
Glue sticks
decks of cards
dominoes
beans
small cups

## Opening

## State the objective

Today we are going to learn some math vocabulary-words that we need to use when we talk about numbers and shapes. We are also going to practice some of the math skills that we will need to be excellent at math.

## Gain prior knowledge by asking students the following questions

What do you know about the word equal? What does it mean? Do you have equal numbers of eyes? Do you have equal number of arms? How about noses? Equal means that things on both sides of an = sign are of the same value. Do you have equal numbers of boys and girls in the class? Ask children to share things that are equal.

| Con |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Problem of the Day <br> Look at the ten frame below. How many more hearts are needed to make ten? |  |  |  |  |  |  | *Activity $\rightarrow$ Teachable <br> Moment(s) throughout <br> During the lesson check in with students repeatedly. <br> Check in about what is happening and what they are thinking. <br> Take advantage of any teachable moments. <br> Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking. <br> When possible, engage students in a "teach to learn" opportunity and have the student become the teacher. |
| Fact Practice <br> Counting 1:1 Correspondence <br> Today you will be working with Kindergartners to reinforce number sense and counting. It is important that Kindergartners understand that when they say a particular number that the word or words they say actually represent a physical number of objects. Today, we will ask children to represent a certain number by drawing a domino and counting the dots on the domino and then representing that number of dots with another figure. <br> Directions: <br> 1. Divide children into pairs. <br> 2. Give each pair a set of Double 9 Dominoes and 2 white boards, pens/crayons. <br> 3. Each child selects a domino and then draws a picture of the domino that shows the number that is represented by the dots on the domino. <br> 4. When they have drawn the domino, child should represent the total of dots on the |  |  |  |  |  |  |  |


| domino with the same number of rectangles ( Math Vocabulary |  |
| :--- | :--- |
| Word for Today: equal | $\begin{array}{l}\text { It is important to review } \\ \text { academic math vocabulary } \\ \text { Description: When we talk about things that are equal, it means that they are the same. } \\ \text { often throughout the day. } \\ \text { When we count spots on a domino and then we count the same number of beans, we are } \\ \text { making the dots and the beans be equal. Are there two students in here that are equal in } \\ \text { height? Do we have equal numbers of fingers? Divide the children so equal numbers are } \\ \text { facing each other. Ask children why have things be equal matters. Show children how to } \\ \text { write number sentence using an = sign. Write several addition number sentences and } \\ \text { several subtract number sentences that the children suggest. Talk them through the } \\ \text { importance of the equal sign and that both sides have the same value. }\end{array}$ |
| $\begin{array}{l}\text { notebook for each word. } \\ \text { When possible, have } \\ \text { students experience the word } \\ \text { (Ex. 4 students creating a } \\ \text { right angle, multiple students } \\ \text { acting out an equation). }\end{array}$ |  |
| $\begin{array}{l}\text { Dominos and Beans } \\ \text { One on one correspondence is a concept that children in Kindergarten develop. This is } \\ \text { what counting is about, counting an item and then recording that number. }\end{array}$ | $\begin{array}{l}\text { Focus on having young } \\ \text { people "compete" in pairs or } \\ \text { small groups. Once a game } \\ \text { is mastered you can utilize it }\end{array}$ |
| in the "When Homework Is |  |$\}$| Today you will divide the students into pairs. Give each pair a set of Double 9 Dominoes |
| :--- |
| and a cup of beans. |


|  | $\quad$ Closing |
| :--- | :--- |
| Say: | Review |
|  |  |
|  | Please recap what we did today. |
| What did you like about what we did today in math? |  |
| What would you like to do more of the next time we do math? |  |
| What is one more than 6? |  |
| What are the numerals? |  |

## Reflection (Confirm, Tweak, Aha!)

1. Ask students to think about what they did today in math.
2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
4. Ask them to comment on something (if anything) they have learned today that was brand new to them.

| Component | Math |
| :--- | :--- |
| Grade Level: | Kindergarten |
| Lesson Title: | Subtraction Strings \#1 |
| Focus: | Sorting |

## Materials:

White boards
Crayolas
Socks (use for erasers)
Glue sticks
activity at end of the lesson plan
straws or macaroni
shoe strings
deck of cards

## Opening

## State the objective

Today we are going to learn some math vocabulary-words that we need to use when we talk about numbers and shapes. We are also going to practice some of the math skills that we will need to be excellent at math.

Gain prior knowledge by asking students the following questions
What do you know about subtraction? What does it mean to take something away? How do you write a number sentence to show that you are subtracting? When you subtract will you have or less left when you are finished subtracting? How do you know?

| Content (the "Meat") |  |
| :---: | :---: |
| Problem of the Day <br> Kim has 2 white marbles and 8 blue marbles. If he reaches into his marble bag, which color is he likely to pull out? Explain your thinking. | *Activity $\rightarrow$ Teachable Moment(s) throughout |
| Fact Practice <br> Counting 1:1 Correspondence <br> Today you will be working with Kindergartners to reinforce number sense and counting. It is important that Kindergartners understand that when they say a particular number that the word or words they say actually represent a physical number of objects. Today, we will ask children to represent a certain number by drawing a domino and counting the dots on the domino and then representing that number of dots with another figure. <br> Directions: <br> 1. Divide children into pairs. <br> 2. Give each pair a set of Double 9 Dominoes and 2 white boards, pens/crayons. <br> 3. Each child selects a domino and then draws a picture of the domino that shows the number that is represented by the dots on the domino. <br> 4. When they have drawn the domino, child should represent the total of dots on the domino with the same number of question marks (?). | with students repeatedly. <br> Check in about what is happening and what they are thinking. <br> Take advantage of any teachable moments. <br> Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking. <br> When possible, engage students in a "teach to learn" opportunity and have the student become the teacher. |


|  |  |
| :---: | :---: |
| Math Vocabulary <br> Word for Today: subtract <br> Description: Work with the students to help them understand the word "subtract" by having them work through the activity of subtractions strings below. Demonstrate for them how to find the number of pieces of macaroni that are to be placed on a shoestring. Then show them how they will know how many pieces of macaroni to subtract from the string. Show them how to create a number sentence. Work through several problems with the children, reminding them of the word subtract repeatedly. | It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. <br> When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). |
| Activity <br> Subtraction <br> Subtraction <br> Subtraction begins with a total number of items and then a specific number of things are removed and the math requires you to find the difference between the number you had at the beginning and the number you have after you have taken something away. <br> Subtraction Strings <br> Directions: <br> 1. Divide students into pairs. <br> 2. Give each pair a shoestring, tie a not in one end. <br> 3. Give each pair a deck of cards with the face cards, jokers, and aces, twos, threes, fours, and fives removed. This means the children will have $6 \mathrm{~s}, 7 \mathrm{~s}, 8 \mathrm{~s}, 9 \mathrm{~s}$, and 10s, <br> 4. Children will also need one 6 -side die and either pieces of a straw or macaroni. <br> 5. Child draws a card with a number on it and loads that many pieces of straw or macaroni onto the string. For example if the card is a 9 , then the student will load the string with 9 pieces. <br> 6. Child records the number on his/her white board. <br> 7. Child then rolls the die and takes that many pieces off of the string. Child writes that number in the number sentence. <br> 8. Child then counts the number of pieces of straw or macaroni that is left on the string and that become the answer or the difference. | Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center. |


|  | Closing |
| :--- | :--- |
| Say: | Review |
| - Please recap what we did today. |  |
| - Did we achieve our objectives? |  |
| What did you like about what we did today in math? $\quad$ Debrief |  |
| What would you like to do more of the next time we do math? |  |
| What is a number that is one less than 13? One less than 8? One less than 16? |  |

## Reflection (Confirm, Tweak, Aha!)

1. Ask students to think about what they did today in math.
2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
4. Ask them to comment on something (if anything) they have learned today that was brand new to them.

| Component | Math |
| :--- | :--- |
| Grade Level: | Kindergarten |
| Lesson Title: | Subtraction Strings \#2 |
| Focus: | Subtraction |

## Materials:

White boards
Crayolas
Socks (use for erasers)
Glue sticks
activity at end of the lesson plan
straws or macaroni
shoe strings
deck of cards

## Opening

## State the objective

Today we are going to learn some math vocabulary-words that we need to use when we talk about telling time. We are also going to practice some of the math skills that we will need to be excellent at math.

## Gain prior knowledge by asking students the following questions

What do you know about subtraction? What does it mean to take something away? How do you write a number sentence to show that you are subtracting? When you subtract will you have or less left when you are finished subtracting? How do you know?

| Content (the "Meat") |  |
| :---: | :---: |
| Problem of the Day <br> Name the two shapes below. Tell how they are alike and how they are different. <br> Fact Practice <br> Counting 1:1 Correspondence <br> Today you will be working with Kindergartners to reinforce number sense and counting. It is important that Kindergartners understand that when they say a particular number that the word or words they say actually represent a physical number of objects. Today, we will ask children to represent a certain number by drawing a domino and counting the dots on the domino and then representing that number of dots with another figure. <br> Directions: <br> 1. Divide children into pairs. <br> 2. Give each pair a set of Double 9 Dominoes and 2 white boards, pens/crayons. <br> 3. Each child selects a domino and then draws a picture of the domino that shows | *Activity $\rightarrow$ Teachable Moment(s) throughout <br> During the lesson check in with students repeatedly. <br> Check in about what is happening and what they are thinking. <br> Take advantage of any teachable moments. <br> Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking. <br> When possible, engage students in a "teach to learn" opportunity and have the |

the number that is represented by the dots on the domino.
4. When they have drawn the domino, child should represent the total of dots on the domino with the same number of diamonds ( $\stackrel{)}{ }$ ).

## Math Vocabulary

## Word for Today: subtract

Description: Work with the students to help them understand the word "subtract" by having them work through the activity of subtractions strings below. Demonstrate for them how to find the number of pieces of macaroni that are to be placed on a shoestring. Then show them how they will know how many pieces of macaroni to subtract from the string. Show them how to create a number sentence. Work through several problems with the children, reminding them of the word subtract repeatedly.

## Activity

Subtraction

## Subtraction

Subtraction begins with a total number of items and then a specific number of things are removed and the math requires you to find the difference between the number you had at the beginning and the number you have after you have taken something away.

## Subtraction Strings

## Directions:

1. Divide students into pairs.
2. Give each pair a shoestring, tie a not in one end.
3. Give each pair a deck of cards with the face cards, jokers, and aces, twos, threes, fours, and fives removed. This means the children will have $6 \mathrm{~s}, 7 \mathrm{~s}, 8 \mathrm{~s}, 9 \mathrm{~s}$, and 10s,
4. Children will also need one 6 -side die and either pieces of a straw or macaroni.
5. Child draws a card with a number on it and loads that many pieces of straw or macaroni onto the string. For example if the card is a 9 , then the student will load the string with 9 pieces.
6. Child records the number on his/her white board.
7. Child then rolls the die and takes that many pieces off of the string. Child writes that number in the number sentence.
8. Child then counts the number of pieces of straw or macaroni that is left on the string and that become the answer or the difference.
student become the teacher.

It is important to review academic math vocabulary often throughout the day.
Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

|  | Closing |  |  |
| :--- | :--- | :---: | :---: |
| Say: | Review |  |  |
| - Please recap what we did today. |  |  |  |
| $\quad$ Did we achieve our objectives? |  |  |  |
| What did you like about what we did today in math? |  |  |  |
| What would you like to do more of the next time we do math? |  |  |  |
| What is a number sentence? |  |  |  |
| What does a subtraction number sentence look like? |  |  |  |

## Reflection (Confirm, Tweak, Aha!)

1. Ask students to think about what they did today in math.
2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
4. Ask them to comment on something (if anything) they have learned today that was brand new to them.

| Component | Math |
| :--- | :--- |
| Grade Level: | Kindergarten |
| Lesson Title: | Student Activity Choice |
| Focus: | Review |

## Materials:

White boards
materials you will need for all of the games you have played the past 10 days
Crayolas
Socks (use or erasers)

| Opening |
| :---: |
| State the objective |
| Today we are going to learn some math vocabulary-words that we need to use when we talk about numbers and shapes. |
| We are also going to practice some of the math skills that we will need to be excellent at math. |

Gain prior knowledge by asking students the following questions

Count from 10-1 backwards
Count from 20 backwards
Using your fingers show each of these numbers: $6,3,2,8,9,7$
Count from 1-10 forwards
Count from 1-20 forward
Practice the Penny, Nickel, Dime, and Quarter Chants
Count by 10's to 100
Count by 5's to 50

| Content (the "Meat") |  |
| :--- | :--- |
| Problem of the Day <br> Penny has 5 cupcakes on a plate. Draw a plate that has more cupcakes than Penny's <br> plate. | Fact Practice <br> *Activity $\rightarrow$ Teachable <br> Moment(s) throughout <br> Curing the lesson check in |
| Counting 1:1 Correspondence | with students repeatedly. |
| Check in about what is |  |
| happening and what they are |  |
| thinking. |  |

2. Give each pair a set of Double 9 Dominoes and 2 white boards, pens/crayons.
3. Each child selects a domino and then draws a picture of the domino that shows the number that is represented by the dots on the domino.
4. When they have drawn the domino, child should represent the total of Dotson the domino with the same number of musical notes ( $\delta$ ).

| $\begin{array}{c}\text { Math Vocabulary } \\ \text { Word for Today: review the words from this week }\end{array}$ | $\begin{array}{l}\text { It is important to review } \\ \text { academic math vocabulary } \\ \text { often throughout the day. } \\ \text { When possible, have } \\ \text { students experience the word }\end{array}$ |
| :--- | :--- |
| (Ex. 4 students creating a |  |
| right angle, multiple students |  |
| acting out an equation). |  |$\}$| Activity |
| :--- |
| Today is a review day. Students should select from the following list of activities: |
| Estimation <br> Capacity <br> More on Capacity <br> Measurement <br> More Measurement <br> Dominoes and Beans <br> Subtraction Strings |

## Closing

Review
Say:

- Please recap what we did today.
- Did we achieve our objectives?


## Debrief

What did you like about what we did today in math?
What would you like to do more of the next time we do math?
What is a number?
What is a letter?
Are they the same?

## Reflection (Confirm, Tweak, Aha!)

1. Ask students to think about what they did today in math.
2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
4. Ask them to comment on something (if anything) they have learned today that was brand new to them.
