

Component:	Math
Grade Level:	First Grade
Lesson Title:	Calendar
Focus:	Calendar

Materials:

White boards

Crayolas

Socks

Opening

State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. 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 have you learned this week that helps you make more sense out of math?

Share with your friend the Fact Families that you have been studying?

Content (the "Meat")	
Problem of the Day Complete this list of numbers:	*Activity → Teachable Moment(s) <i>throughout</i>
5, 10, 15,,, 45, 50	During the lesson check in with students repeatedly.
Fact PracticeFact Practice for 1st grade is looking at number families, so you are looking at both additionand subtraction. The key is for children to learn that numbers have a relationship with oneanother in adding and subtracting. Fact practice will follow this pattern every day.Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)They will write the problem in four ways. $1+2=3$ $2+1=3$ $3-2=1$ $3-1=2$ After they have written the problem in all 4 ways they will find a partner and say,"If $1+2=3$, then $2+1=3$ ".The other student will respond with "Yes, and since that is true, $3-1=2$, and $3-2=1$ ".You should have them practice this conversation (exactly as it is written) with 3-5 otherstudents every day. On the 5 th day, you will utilize all 4 problems from the days before, andthe conversation will follow the pattern, but the second responder will need to quickly lookthrough his/her cards (of course we hope they remember without looking) and gives the	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 open- ended 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.



correct response. Today you will introduce this activity and k Have students write the entire Fact Family 4 + 7 = 11 7 + 4 = 11 11 - 4 = 7 11 - 7 = 4 Bring two students up to practice the conv Try it again with several other pairs of stud Then have children find a partner and prace Remember that today they are only doing		
Math	Vocabulary	It is important to review
Word for today: pattern Pattern is a word that describes a way tha themselves. For example, the American fi can be found in plaid, wallpaper, and in the where a pattern makes sense. Create an entry in your Vocabulary Notebo word pattern. Vocabulary Notebook Sample: New Word pattern	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). Vocabulary Notebooks can be made from ½ of a composition book.	
Personal Connection	Drawing	
I made a pattern out of the blocks.	⊕ ⊕ ⊕ ☆☆♥ ⊕ ⊕ ☆☆♥ ⊕	
 Calendar Materials: Calendar template attached to this lesso Directions: Students will work independently. Give each student a calendar grid. Student should label the days of the weel Student should label the name of the mo Student should insert the date onto the c Student add pictures to identify special days 	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 do you know about a calendar?	
What are the names of the month?	
What are the names of the days of the week?	

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 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)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Calendar Template

Name of Month

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		



Component:	Math
Grade Level:	First Grade
Lesson Title:	Cereal Sort
Focus:	Attributes

Materials:		
White boards	small cup	
Crayolas	Lucky Charms	
Socks		

Opening

State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. 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

Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing). Sometimes you count forward or backward by 1s, other times for 2s, 3s, 4s, or many more. That's why addition and subtraction were invented so you didn't have to spend so much time counting. It is simply easier once you get the hang of it.

What do you know about addition?

What is a Fact Family? If you are adding the number 6 and 8 together, what is the fact family of three numbers? What is a sum?

In the Fact Family 6, 4, and 10 what is the sum?

	Content (the "Meat")					
Problem of the Day Look at the graph below. How many people like happy faces? How many more people like					*Activity → Teachable Moment(s) <i>throughout</i>	
happy fa	aces thar	n musica	I notes?	r		During the lesson check in with students repeatedly.
▼ ⊡	♥ 	♥ 	\odot	\odot		Check in about what is
	 ♪			0		happening and what they are thinking.
1	2	3	4	5		Take advantage of any
12345Fact PracticeFact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways. $1 + 2 = 3$					teachable moments. Stop the class and focus on a student's key learning or understanding. Ask open- ended questions to determine what the rest of the group is thinking.	



2 + 1 = 3		
the conversation will follow the pattern, but the through his/her cards (of course we hope the correct response. Today you will introduce this activity and beg Have students write the entire Fact Family of 1 + 8 = 9 8 + 1 = 9 9 - 1 = 8 9 - 8 = 1 Bring two students up to practice the converse Try it again with several other pairs of student Then have children find a partner and practice Remember that today they are only doing the	I since that is true, $3 - 1 = 2$, and $3 - 2 = 1$ ". tion (exactly as it is written) with 3-5 other utilize all 4 problems from the days before, and be second responder will need to quickly look y remember without looking) and gives the in with the Fact Family of 1, 8, and 9. In the white board.	When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.
Math Ve Word for Today: graph The word graph describes a tool that you car different things. For example, graphs might k number of squares that would compare to the had 3 chocolate chip cookies, you would color Look at the graph. It shows how children vot When you look at the chart, which shape is th When you look at the chart, which shape is the Have children complete the Vocabulary noted	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). Vocabulary Notebooks can be made from ½ of a composition book.	
Vocabulary Notebook Sample: New Word	My Description	
graph	A drawing to show information	
Personal Connection	Drawing	



Students will complete this notebook for each vocabulary word that they are given.	
Activity Cereal Sort Materials: Cups (2 oz.) Lucky Charms (maybe 2 boxes) Directions: 1. Give each pair of students a cup of Lucky Charms. 2. Ask students to work together to sort the Lucky Charms into categories (color, shapes, cereal vs. marshmallow). 3. Have students draw a graph to show the sort that they have made and share it with the class. 4. Let students eat the Lucky Charms when you are finished.	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?

Name something that we could graph.

If you were graphing something that began with a value of 4 and then moved to a value of 9, would the graph show more or less?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 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)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	How Many
Focus:	Estimation

Materials:

White boards Crayolas Socks assorted cereals cups

Opening

State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. 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 is another way of telling you to add?

What is a Fact Family? If you are adding the number 4 and 3 together, what is the fact family of three numbers? What is a sum?

What does equals mean? How does the = sign connect the numbers of a Fact Family.

Content (the "Meat")				
Problem of the Day If a Ψ = 5 and a Γ = 3, how much do you have if you have this number sentence:	*Activity → Teachable Moment(s) <i>throughout</i>			
❤ + ♪ =	During the lesson check in with students repeatedly.			
Fact PracticeFact Practice for 1st grade is looking at number families, so you are looking at both additionand subtraction. The key is for children to learn that numbers have a relationship with oneanother in adding and subtracting. Fact practice will follow this pattern every day.Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)They will write the problem in four ways. $1+2=3$ $2+1=3$ $3-2=1$ $3-1=2$ After they have written the problem in all 4 ways they will find a partner and say,"If $1+2=3$, then $2+1=3$ ".The other student will respond with "Yes, and since that is true, $3-1=2$, and $3-2=1$ ".You should have them practice this conversation (exactly as it is written) with 3-5 otherstudents every day. On the 5 th day, you will utilize all 4 problems from the days before, and	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 open- ended 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.			



the conversation will follow the pattern, but the through his/her cards (of course we hope they correct response. Today you will introduce this activity and begind Have students write the entire Fact Family on 2 + 8 = 10 8 + 2 = 10 10 - 2 = 8 10 - 8 = 2 Bring two students up to practice the conversa Try it again with several other pairs of student Then have children find a partner and practice Remember that today they are only doing the Math Vo Word for today: how many? How many is a question asked when you wan for this story: Shelly has 8 marbles. John giv Shelly have now? Ask students to give you another problem. Illu number sentence. Have children complete the vocabulary notebor Vocabulary Notebook Sample: New Word How many	y remember without looking) and gives the in with the Fact Family of 2, 8 and 10. the white board. ation. s. e the conversation. Do this at least 4 times. Fact Family of 2, 8 and 10. Fact Family of 2 , 8 and 10.	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). Vocabulary Notebooks can be made from ½ of a composition book.
Personal Connection He asked me how many sweaters I had.	Drawing	
 How many? Materials: 2 ounce cups Cheerios Rice Chex Trix white board Directions: Have students work in pairs. 	ivity v many piece of each cereal it will take to fill	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.



3.	Students should write the estimate on the white board, being sure to label the cereal	
	type.	
4.	Once students have estimated the number of pieces of each cereal, students should	
	get 1 cup of each type of cereal and count the pieces.	
5.	Students should write a comparison statement: My guess, Actual Number	
	for each type of cereal.	

	Closing	
	Review	
Say:		
Please recap what we did toda	у.	
Did we achieve our objectives?		
	Debrief	
What did you like about what we did too	lay in math?	
What does the term "how many" mean?	,	
What operation (addition or subtraction)) do you do to answer the question, "How many?"	

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 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)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Cereal Word Problems
Focus:	Review

Materials:		
White boards	Trix	
Crayolas	Cocoa Puffs	
Socks	Rice Chex	

Opening

State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. 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 like best about working with numbers?

What does it mean to estimate?

What is a coin?

What is a number sentence?

	Content (the "Meat")	
This is Fred's domino. Write a	Problem of the Day	*Activity → Teachable Moment(s) <i>throughout</i>
number sentence that tells how many dots on the domino.	•	During the lesson check in with students repeatedly.
	•	Check in about what is happening and what they are thinking.
and subtraction. The key is for canother in adding and subtractin	Fact Practice king at number families, so you are looking at both addition hildren to learn that numbers have a relationship with one g. Fact practice will follow this pattern every day. hily. (We will begin with 1 more, then 2 more, etc.)	Take advantage of any teachable moments. Stop the class and focus on a student's key learning or understanding. Ask open-
They will write the problem in for 1 + 2 = 3 2 + 1 = 3		ended questions to determine what the rest of the group is thinking.
3 - 2 = 1 3 - 1 = 2	em in all 4 ways they will find a partner and say,	When possible, engage students in a "teach to learn" opportunity and have the
"If 1 + 2 = 3, then 2 + 1 =3".	ith "Yes, and since that is true, $3 - 1 = 2$, and $3 - 2 = 1$ ".	student become the teacher.



You should have them practice this conversat students every day. On the 5 th day, you will u the conversation will follow the pattern, but the through his/her cards (of course we hope they correct response. Today you will introduce this activity and begi Have students write the entire Fact Family on 4 + 8 = 12 8 + 4 = 12 12 - 4 = 8 12 - 8 = 4 Bring two students up to practice the conversa Try it again with several other pairs of student Then have children find a partner and practice Remember that today they are only doing the	tilize all 4 problems from the days before, and e second responder will need to quickly look remember without looking) and gives the n with the Fact Family of 4, 8 and 12. the white board.	
Math Vocabulary Words for today: domino A domino is a game piece that has dots or spots on it. A domino is divided into two sides and sometimes you can have a domino that only has spots on one side or the other. Sometimes there are dots on both sides. The most common dominos have from double 0 to double 6 sets of spots. You play dominos by matching the spots. Another kind of dominos are called Double Nines which means the spots go from double zero to double 9. Create an entry for the word domino in your Vocabulary Notebook. Vocabulary Notebook Sample: New Word My Description		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). Vocabulary Notebooks can be made from ½ of a
domino	Rectangular game piece with dots on it	composition book.
Personal Connection I like to use the dominoes to add.	Drawing	
Cereal Word Problems Materials • 2 ounce cups • Student's favorite cereals (Trix, Cocoa Puffs Directions:	s, etc.)	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.
 Have students work in pairs. Have each student get a cup of his/her favor Students work together to write number sent 	ite cereal. ences about the cereal (they do not have to use	



all of the cereal for every problem.

4. Students should write at least 10 number sentences.

Closing

Review

Say:

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

Debrief

Tell how you think you would play the game of dominos.

Tell why it is important to understand how to write a number sentence?

Tell what the common U.S. coins are named and how much they are worth.

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 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)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	How Long?
Focus:	Estimation

Materials:		
White boards	paper clips	
Crayolas	strings	
Socks	scissors	

Opening

State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. 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 subtracting?

In a Fact Family how does the arrangement of the numbers change when you subtract?

What does equals mean? How does the = sign connect the numbers of a Fact Family in a subtraction problem.

Content (the "Meat")	
Problem of the Day I am the answer to the number sentence	*Activity → Teachable Moment(s) <i>throughout</i>
5 + 2 = What number am I?	During the lesson check in with students repeatedly.
Fact Practice Fact Practice for 1 st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one	Check in about what is happening and what they are thinking.
another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)	Take advantage of any teachable moments.
They will write the problem in four ways. 1 + 2 = 3 2 + 1 = 3 3 - 2 = 1 3 - 1 = 2	Stop the class and focus on a student's key learning or understanding. Ask open-ended questions to
After they have written the problem in all 4 ways they will find a partner and say, "If $1 + 2 = 3$, then $2 + 1 = 3$ ".	determine what the rest of the group is thinking.
The other student will respond with "Yes, and since that is true, $3 - 1 = 2$, and $3 - 2 = 1$ ". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5 th day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.	When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



Today you will introduce this activity and beg Have students write the entire Fact Family or 3 + 8 = 11 8 + 3 = 11 11 - 3 = 8 11 - 8 = 3 Bring two students up to practice the converse Try it again with several other pairs of studen Then have children find a partner and practice Remember that today they are only doing the	n the white board. sation. ts. e the conversation. Do this at least 4 times.	
Math Vocabulary Word for Today: estimate Estimate is to make a great guess about how many things you think there are in any identified space. Ask students to talk about things that would make sense to estimate rather than count, since there are so many of them. (beans, fish in a pond, glasses of water in a five gallon bottle. Have children review the Vocabulary Notebook. Vocabulary Notebook Sample:		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
New Word estimate	My Description Make a guess based on information gathered	acting out an equation). Vocabulary Notebooks can be made from ½ of a composition book.
Personal Connection I estimate the answer to be 352 jelly beans.	Drawing	
Ac: How Long? Materials • Paper clips • Strings(students to cut to different lengths) • Scissors • White board • Crayolas	tivity	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.
 Directions: Have students work in pairs Each pair comes up and cut 6 different strin Student pick up a handful of paper clips. Students "string" the paper clips together to Looking at each piece of string, students estimation 		



- 6. Students record the number and then actually measure the string against the paper clips.
- 7. Students determine how close the estimation was.
- 8. Students share results with one another.

Closing

Review

Say:

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

Debrief

What does it mean to measure something?

If you didn't use paper clips to measure something, what else might you do?

How many paper clips tall are you? What's your best guess?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 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)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	M and M Graph
Focus:	Graphing

Materials:

White boards Crayolas Socks M and M small packages

Opening

State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. 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

Give an example of a subtraction problem.

Why is the difference lower than the first number in a subtraction problem?

In a Fact Family how does the arrangement of the numbers change when you subtract?

What does equals mean? How does the = sign connect the numbers of a Fact Family in a subtraction problem.

Content (the "Meat")	
Problem of the Day What would you call the shape below?	*Activity → Teachable Moment(s) <i>throughout</i>
	During the lesson check in with students repeatedly.
Fact Practice Fact Practice Fact Practice for 1 st grade is looking at number families, so you are looking at both addition	Check in about what is happening and what they are thinking.
and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day.	Take advantage of any teachable moments.
Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways. 1 + 2 = 3 2 + 1 = 3 3 - 2 = 1 3 - 1 = 2 After they have written the problem in all 4 ways they will find a partner and say,	Stop the class and focus on a student's key learning or understanding. Ask open- ended questions to determine what the rest of the group is thinking.
"If $1 + 2 = 3$, then $2 + 1 = 3$ ". The other student will respond with "Yes, and since that is true, $3 - 1 = 2$, and $3 - 2 = 1$ ". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5 th day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look	When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



through his/her cards (of course we hope the correct response. Today you will introduce this activity and beg Have students write the entire Fact Family or 4 + 6 = 10 6 + 4 = 10 10 - 4 = 6 10 - 6 = 4 Bring two students up to practice the converse Try it again with several other pairs of studen Then have children find a partner and practic Remember that today they are only doing the	in with the Fact Family of 4, 6 and 10 a the white board. ation. ts. e the conversation. Do this at least 4 times.	
Math Vocabulary Word for Today: cube Cube is a word that describes a shape that has 6 equal sides. It is a three dimensional figure. It is made up of a faces that are squares but a cube is not flat like a square. Think of things that you see in the world which are shaped like a cube. Have children complete the Vocabulary notebook.		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
Vocabulary Notebook Sample:		(Ex. 4 students creating a right angle, multiple students
New Word cube	My Description Hot dogs, mustard, catsup, drinks, ball games, family fun at the park	acting out an equation). Vocabulary Notebooks can be made from ½ of a composition book.
Personal Connection	Drawing	
I put 4 ice cubes in my glass of tea.		
Act M and M Graph Materials: • Small bag of M and Ms for each pair of stud • Graph paper (attached to this lesson plan) • Crayons Directions: 1. Students work in pairs. 2. Students create a graph to show how many 3. Students prepare the graph (demonstrate here)	of each color of M and M is in the bag.	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.
 Students propage the graph (demonstrate in Students share the individual graphs with th Create a class graph combining all of the M 	e class.	

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 is a cube?	
How many sides does a cube have?	

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 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)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Penny Graph
Focus:	Graph

Materials:

White boards Crayolas Socks penny graph

Opening

State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. 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 subtracting?

In a Fact Family how does the arrangement of the numbers change when you subtract?

What does equals mean? How does the = sign connect the numbers of a Fact Family in a subtraction problem..

Content (the "Meat")	
Problem of the Day Mark has a card with the number sentence	*Activity → Teachable Moment(s) <i>throughout</i>
3 + 4 = on it. Judy has a card with the number sentence 4 + 7 = on it. Who has a card with the greatest sum? How do you know?	During the lesson check in with students repeatedly.
Fact Practice Fact Practice for 1 st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways. 1 + 2 = 3 2 + 1 = 3 3 - 2 = 1 3 - 1 = 2 After they have written the problem in all 4 ways they will find a partner and say, "If $1 + 2 = 3$, then $2 + 1 = 3$ ". The other student will respond with "Yes, and since that is true, $3 - 1 = 2$, and $3 - 2 = 1$ ". You should have them practice this conversation (exactly as it is written) with 3-5 other	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 open- ended questions to determine what the rest of the group is thinking. When possible, engage students in a "teach to learn" opportunity and have the
students every day. On the 5 th day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the	student become the teacher.



correct response. Today you will introduce this activity and b Have students write the entire Fact Family 3 + 9 = 12 9 + 3 = 12 12 - 3 = 9 12 - 9 = 3 Bring two students up to practice the converting Try it again with several other pairs of stud. Then have children find a partner and practice the converting Remember that today they are only doing the several other pairs of stud.	on the white board. ersation. ents. tice the conversation. Do this at least 4 times.	
Word for Today: number sentence A number sentence is a math problem that if the story is this: Judy has 3 dolls. She is have? Would be written in a number sente	Vocabulary is written to tell or capture a story. For example, s given 5 dolls. How many dolls does Judy ence that looks like this: 3 + 5 = 8 ulary notebook for the term number sentence. My Description A sentence in numbers that shares information Drawing 13 - 4 - 9	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). Vocabulary Notebooks can be made from ½ of a composition book.
Penny Graph Materials: Make a copy of the Penny grap lesson plan) 1 penny for each pair of students	Activity oh for each pair of students (graph at end of	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.
5 6 6	the coin and let it land on either "heads" or "tails". ecord whether or not it landed on heads or tails. d then let them begin to work in pairs.	



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 sentence?

Turn to your partner and give them a number sentence that tells how old you are if your ages are combined.

Are they the same?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 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)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Penny Graph





Component:	Math
Grade Level:	First Grade
Lesson Title:	Make A Dollar
Focus:	Money

Materials:

White boards Crayolas

Socks

decks of cards with face cards and jokers removed

Opening

State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. 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

Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing). Sometimes you count forward or backward by 1s, other times for 2s, 3s, 4s, or many more. That's why addition and subtraction were invented so you didn't have to spend so much time counting. It is simply easier once you get the hang of it.

What is a Fact Family? If you are adding the number 7 and 6 together, what is the fact family of three numbers? What is a sum?

What is another way of telling you to add?

Write a number sentence for the Fact Family 7, 6 and 13. Circle the sum.

Content (the "Meat")	
Problem of the Day If you have pennies and nickels how can you make 10¢?	*Activity → Teachable Moment(s) <i>throughout</i>
Nickel = 5¢ Penny = 1¢	During the lesson check in with students repeatedly. Check in about what is
Fact Practice	happening and what they are thinking.
another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways. 1 + 2 = 3 2 + 1 = 3 3 - 2 = 1	Take advantage of any teachable moments.
	Stop the class and focus on a student's key learning or understanding. Ask open- ended questions to determine what the rest of the group is thinking.



3 - 1 = 2 After they have written the problem in all 4 wa "If $1 + 2 = 3$, then $2 + 1 = 3$ ". The other student will respond with "Yes, and You should have them practice this conversal students every day. On the 5 th day, you will u the conversation will follow the pattern, but the through his/her cards (of course we hope they correct response. Today you will introduce this activity and beg Have students write the entire Fact Family on 1 + 9 = 10 9 + 1 = 10 10 - 1 = 9 10 - 9 = 1 Bring two students up to practice the converse Try it again with several other pairs of student Then have children find a partner and practice Remember that today they are only doing the	since that is true, $3 - 1 = 2$, and $3 - 2 = 1^{"}$. tion (exactly as it is written) with 3-5 other itilize all 4 problems from the days before, and e second responder will need to quickly look y remember without looking) and gives the in with the Fact Family of 1, 9 and 10. the white board.	When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.
	cabulary	It is important to review academic math vocabulary
 Word for Today: coin The word coin refers to any metal circle which has been stamped with official symbols. In America, a coin can usually be a penny, a nickel, a dime, a quarter, and a 50¢ piece. A coin is received when someone needs to make change because the amount needed is not a dollar. Think about how each of these coins looks. Which is the largest, which the smallest? Which ones appear to be silver, which one is copper? Complete an entry for coin in your Vocabulary Notebook. Vocabulary Notebook Sample: 		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).
New Word	My Description	Vocabulary Notebooks can be made from ½ of a
coin	A metal piece of money: dime, nickel quarter, penny	composition book.
Personal Connection	Drawing	
Did you put a coin in the box?		
Students will complete this notebook for each	vocabulary word that they are given.	
Make A Dollar Materials: • Real or plastic coins (you can also go on line	ivity e and get pictures of coins and print, however and they can be used in a lot of different ways	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.
Directions:	
1. Place all coins or coin cards in the center, face up.	
2. Player selects coins to make \$1.00.	
3. Player writes the equation: \$.25 + \$.10 + \$.10 + \$.05 + \$.50 = \$1.00.	
4. Coins are returned to the center for the next player to use.	

	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?	
How can you use the information from today in school	iomorrow?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 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)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Graphing Coins
Focus:	Graphing

Materials:		
White boards	jar of real or plastic coins	
Crayolas	white paper	
Socks	Pencils	

Opening

State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. 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 is a coin?

How many pennies does it take to make \$1.00

Content (the "Meat")	
Problem of the Day Explain how the shapes below are alike and how they are different.	*Activity → Teachable Moment(s) <i>throughout</i>
$ \land \land$	During the lesson check in with students repeatedly.
Fact Practice Fact Practice for 1 st grade is looking at number families, so you are looking at both addition	Check in about what is happening and what they are thinking.
and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)	Take advantage of any teachable moments.
They will write the problem in four ways. 1 + 2 = 3 2 + 1 = 3 3 - 2 = 1 3 - 1 = 2	Stop the class and focus on a student's key learning or understanding. Ask open- ended questions to determine what the rest of
After they have written the problem in all 4 ways they will find a partner and say, "If $1 + 2 = 3$, then $2 + 1 = 3$ ".	the group is thinking. When possible, engage
The other student will respond with "Yes, and since that is true, $3 - 1 = 2$, and $3 - 2 = 1$ ". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5 th day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.	students in a "teach to learn" opportunity and have the student become the teacher.



Today you will introduce this activity and beg Have students write the entire Fact Family or 3 + 7 = 10 7 + 3 = 10 10 - 3 = 7 10 - 7 = 3 Bring two students up to practice the converse Try it again with several other pairs of studen Then have children find a partner and practice Remember that today they are only doing the Talk about how we will continue with the four problems look exactly the same.		
Math Vocabulary Word for today: estimate Estimate is a word that means to make a best guess. If you estimate something you make a very intentional decision about how many you think can be in the group that you are estimating. For example, if you reach into the candy jar for jelly beans and you bring out a handful and have 25 jelly beans, and if you were to guess the entire jar looks like it holds 4 handfuls of jelly beans, you would estimate that there are 100 jelly beans in the jar. That is a guess that would make sense so it is a good estimate. Vocabulary Notebook Sample: New Word My Description estimate Making a guess based on information gathered Personal Connection Drawing		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). Vocabulary Notebooks can be made from ½ of a composition book.
I estimate that it is 500 miles from here.	500 miles	
Activity Graphing Coins Materials: • Paper • Pencil • Jar of coins (pennies, dimes, nickels, quarters) Directions: 1. Students work in pairs and trace around one another's hand (student should create two hands). 2. After the hands are draw, student reaches into the container of coins and pulls out a handful. 3. He/she then counts the number of each coin that he/she has drawn from the container.		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.



4. Student draws the coins in the hand that was traced.

- 5. Students put the coins back in the jar and then prepare a graph of the coins that were drawn out.
- 6. Students share the graph with the class.

	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?		
Name the different coins that we use.		
How do you make a guess about how many steps to the counter?		

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 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)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Raisin Bran 2 Scoops
Focus:	Estimation

Materials:		
White boards	Raising Bran	
Crayolas	2 ounce cups	
Socks		

Opening

State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. 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 addition? What do you know about subtraction?

How many fingers do you have on your right hand? How many fingers do you have on your left hand? How many fingers do you have altogether? Did you add or did you count? When you increase a number it is addition. How many fingers do you have on 2 hands. If you take the fingers on one hand away and hide them behind your back, how many fingers do you have showing? Did you count backwards? Did you subtract? Subtraction is what you do when you decrease a number. Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing)

Content (the "Meat")	
Problem of the Day You are that aquarium to see the fish. There are 6 clown fish. 3 more clown fish swim into the aquarium. How many clown fish all together? Please draw a picture.	*Activity → Teachable Moment(s) <i>throughout</i> During the lesson check in with students repeatedly.
Fact Practice Fact Practice for 1 st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)	Check in about what is happening and what they are thinking. Take advantage of any teachable moments
They will write the problem in four ways. 1 + 2 = 3 2 + 1 = 3 3 - 2 = 1 3 - 1 = 2 After they have written the problem in all 4 ways they will find a partner and say,	Stop the class and focus on a student's key learning or understanding. Ask open- ended questions to determine what the rest of the group is thinking
"If $1 + 2 = 3$, then $2 + 1 = 3$ ". The other student will respond with "Yes, and since that is true, $3 - 1 = 2$, and $3 - 2 = 1$ ". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5 th day, you will utilize all 4 problems from the days before, and	When possible, engage students in a "teach to learn" opportunity and have the



the conversation will follow the pattern, but through his/her cards (of course we hope to correct response. Today you will introduce this activity and bo Have students write the entire Fact Family 1 + 6 = 7 6 + 1 = 7 7 - 1 = 6 7 - 6 = 1 Bring two students up to practice the convecting Try it again with several other pairs of stud Then have children find a partner and practice Remember that today they are only doing the several other pairs of students are only doing the several other pairs of students are only doing the several other pairs of students are only doing the several other pairs of students are only doing the several other pairs of students are only doing the several other pairs of students are only doing the several other pairs of students are only doing the several other pairs of students are only doing the several other pairs of students are only doing the several other pairs of students are only doing the several other pairs of students are only doing the several other pairs of students are only doing the several other pairs of students are only doing the several other pairs of students are only doing the several other pairs of students are only doing the several other pairs of several other pairs of students are only doing the several other pairs of students are only doing the several other pairs of several other pairs of students are only doing the several other pairs of severa	student become the teacher	
Remember that today they are only doing the Fact Family of 1, 6, and 7. Math Vocabulary Word for Today: addition Addition is the word that describes what you do when you put 2 or more groups of items together. For example if I have a group of 3 hearts and I have another group of 5 hearts, when I add them together I have a larger group of 8 hearts. Have children complete the Vocabulary notebook. Vocabulary Notebook Sample: New Word My Description I can add the number of cookies on the two plates. Drawing I can add the number of cookies on the two plates. Drawing Students will complete this notebook for each vocabulary word that they are given.		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) Vocabulary Notebooks can be made from ½ of a composition book
Activity Raisin Bran—2 Scoops Materials: Raising Bran 2 ounce paper cups Post-Its Bowls Paper Towels Directions: 1. Show the children the box of Raising Bran and ask them how many raisins they think are in the box. Write each estimate on a Post-It. When all are done, organize the list from smallest		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



to largest.

- 2. Divide students into pairs
- 3. Each pair comes up and puts "two scoops" (cups) of raisin bran in his/her bowl
- 4. Children then go back to their space and count the number of raisins in their sample
- 5. Write the amount on chart paper
- 6. Help children add the numbers
- 7. Check to see how close the estimates were.
- 8. Eat the raisin bran

	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	What would you like to do more of the next time we do math?	
What	What does it mean when we say we found an answer by addition?	

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 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)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Two Scoops Part 2
Focus:	Measurement

Materials:	
White boards	raisins
Crayolas	2 ounce cups
Socks	

Opening

State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. 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 addition?

What is a Fact Family? If you are adding the number 5 and 3 together, what is the fact family of three numbers? Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing). Sometimes you count forward or backward by 1s, other times for 2s, 3s, 4s, or many more. That's why addition and subtraction were invented so you didn't have to spend so much time counting. It is simply easier once you get the hang of it.

Content (the "Meat")	
Problem of the Day If this month is December, what was last month? What is next month? How do you know?	*Activity → Teachable Moment(s) <i>throughout</i>
Fact Practice	During the lesson check in with students repeatedly.
Fact Practice for 1 st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day.	Check in about what is happening and what they are thinking.
Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways. 1 + 2 = 3	Take advantage of any teachable moments.
1 + 2 = 3 2 + 1 = 3 3 - 2 = 1 3 - 1 = 2	Stop the class and focus on a student's key learning or understanding. Ask open-
After they have written the problem in all 4 ways they will find a partner and say, "If $1 + 2 = 3$, then $2 + 1 = 3$ ". The other student will respond with "Yes, and since that is true, $3 - 1 = 2$, and $3 - 2 = 1$ ".	ended questions to determine what the rest of the group is thinking.
You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5 th day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look	When possible, engage students in a "teach to learn" opportunity and have the



through his/her cards (of course we hope they correct response. Today you will introduce this activity and begin Have students write the entire Fact Family on 1 + 7 = 8 7 + 1 = 8 8 - 1 = 7 when you touched the in betwin 8 - 7 = 1 Bring two students up to practice the conversa Try it again with several other pairs of student Then have children find a partner and practice Remember that today they are only doing the	in with the Fact Family of 1, 7 and 8. the white board. veen part of your knuckles. ation. ts. e the conversation. Do this at least 4 times.	student become the teacher.
Math Vo Word for Today: month A month is a period of time that is measured i Some of the months have 30 days. Some mo except for every four years it has 29 days. The months of the year are January, Februar September, October, November, December If you put your fists out in front of you and you your left hand, and say the months of the year between the knuckle, the knuckle, the space of January, February, March, April, May, June, J You will begin August when you touch the knu space, October the knuckle, November the sp might wonder why that makes a difference. E knuckle has 31 days. February has 38 or 29 of September, and November all have 30 days. In your Vocabulary Notebook create an entry	ry, March, April, May, June, July, August, r u start on the knuckle of the smallest finger of r as you touch the knuckle, then the space in between the knuckle and so on, you will say July (you will be at the end of your left hand). uckle on your right hand. September is the bace, and December the knuckle. Now you Every month you said when you touched a dependent on the year. April, June, These were the months you named	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). Vocabulary Notebooks can be made from ½ of a composition book.
Vocabulary Notebook Sample:		
New Word	My Description	
Month	Measurement of time: January, May	
Personal Connection	Drawing	
There are 12 months in the tear.		
Students will complete this notebook for each	vocabulary word that they are given.	



Activity	Focus on having young
Raisins—Two Scoops Part II	people "compete" in pairs or
Materials:	small groups. Once a game
Chart from yesterday	is mastered you can utilize it
 Box of raisins (probably several—2 ounces for each student) 	in the "When Homework Is
	Complete" center.
Directions:	
1. Discuss with students that the advertisement says that there are "two scoops" of raisins in	
every box.	
2. Talk about that instead of a scoop we are using the cup.	
3. Have students measure two small cups of raisins and count them.	
4. Is the number the same, higher, lower that yesterday's number?	
5. Decide if the advertisement is correct.	

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 month were you born in? What special events happen in February?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 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)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.