

Component	Math
Grade Level:	2 nd – 5 th Grade
Lesson Title:	Fact Family
Focus:	Learning Each Math Lesson Segment

Materials:

Dice

White boards, paper and pencil

Opening

State the objective

Today we are going to practice the different aspects of the math lesson plan.

Gain prior knowledge by asking students the following questions

What are some of the games that you know how to play?

What are some of the math vocabulary words that you know?

What do you think is meant by "Problem of the Day"?

Content (the "Meat")

Problem of the Day In this segment you will have a problem for students to complete. The problems will vary and	*Activity → Teachable Moment(s) <i>throughout</i>
will be both review and in line with the lesson. Write the problem on chart paper. Let youth work the problem on a white board either alone or with a partner. Following is a sample	During the lesson check in with students repeatedly.
problem: If a pattern looks like this: VVV VV VV VV VV VV	Check in about what is happening and what they are
Math Facts	thinking.
The Fact Practice activity will be different each day. You may use dice, dominoes, cards, white board, or other items to practice the math facts that are appropriate for the grade level	Take advantage of any teachable moments.
students are in. In order for youth to practice effectively, you will need to teach each game following the protocol below.	Stop the class and focus on a student's key learning or
 Step 1: Basic Information Tell the students the name of the game. Tell them the skill that they will be practicing. Tell them the materials they will need to play the game. Tell them how many people may play the game at one time. Tell them if the game is cooperative (all students working together to defeat the game) or competitive (each student hopes to defeat the other players). Tell them how they will know that the game is over. Remind them of how to choose who will be first. Remind them at the end of the game that they will need to do to clean-up. 	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.
Step 2: Demonstration - Talk the students through the game.	



-	Give the rules (it is best if they can see these).

- Give a demonstration or a "for example"
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

Step 3: Model

- Ask for 2-3 student volunteers to play a "teaching game" so the remainder of the class can see the game played from beginning to end.
- Ask other students to make a circle around the volunteers so they can see how the game is played.
- Go through the game step by step having the volunteers actually make the plays.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- After playing the game for several minutes, praise the first volunteers and ask for 2-3 more.
- Replay the game with the new volunteers, providing less direction but being very responsive if the players are stuck or playing the game incorrectly.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

Fact Practice

Fact Family

A Fact Family is 3 numbers which have a relationship in multiplication and division. For example, the numbers 9, 4, and 36 have a particular relationship in multiplication and division. This family has four members:

9 X 4 = 36 4 X 9 = 36 36 ÷ 4 = 9 36 ÷ 9 = 4

The numbers 9, 4 and 13 have a particular relationship in addition and subtraction.

9 + 4 = 134 + 9 = 1313 - 4 = -120 = 4

13 – 9 = 4

Students should roll 2 dice and create a Fact Family by writing the members of the family on the white board. Student should roll a total of 5 times, creating 5 Fact Families

Student Practice

General guidelines for students playing games follow

Step 4: Open Play

- Divide students into small groups (you might want to put a "volunteer" who played the game in each of these small groups)
- Have the students play a practice game (no winners or losers) **Note:** If you are playing with cards you might want to have the students display their hand of cards during Open Play.



 Check for understanding by asking studen from what they experienced. 		
Note: This is the last "practice" for the game. The the game by this point. There will be only minor two		
Step 5: Play - Have students play the game.' - Circulate and answer questions as needed - Debrief the game at the end asking stude - What skill did you practice? - What did you learn? - How would you have taught the state		
Math Vo Each lesson will also have a vocabulary word is may be reviewed more than one time. Youth is Academic Vocabulary Notebook. The Vocabu practice working on this for the next 11 days. Word for Today: odd Description: Numbers that cannot be divided Complete the journal entry in your Vocabulary 2, explain the word in your own words. In space demonstrate your understanding of the word be Vocabulary Notebook Sample: New Word	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. It is important to review	
odd	Numbers that are not even	academic math vocabulary often throughout the day.
Personal Connection Are these numbers odd or even?	Drawing 3, 5, 7, and 9 are odd numbers	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.	
Ac Each day there will also be a mathematics activity do an activity here since you are learning how to p be added to the Homework Center.	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?		

Three Whats

Ask the following three what questions:

What was your key learning for the day?

What opportunities might you have to do this same thing in the "real world"?

What advice would you give to a "new" student getting ready to do this activity?

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.

Debrief



Component	Math
Grade Level:	2 nd – 5 th Grade
Lesson Title:	Addition or Multiplication Was
Focus:	Learning Each Math Lesson Segment

Materials:

Cards, one deck for every 2 students White boards, paper and pencil

Opening

State the objective

Today we are going to practice the different aspects of the math lesson plan.

Gain prior knowledge by asking students the following questions

What are some of the games that you know how to play?

What are some of the math vocabulary words that you know?

What do you think is meant by "Problem of the Day"?

Content (the "Meat")

Problem of the Day In this segment you will have a problem for students to complete. The problems will vary and	*Activity → Teachable Moment(s) <i>throughout</i>
will be both review and in line with the lesson. Write the problem on chart paper. Let youth work the problem on a white board either alone or with a partner. Following is a sample	During the lesson check in with students repeatedly.
problem: If you have 19 chocolate chip cookies and 13 Oreos, how many cookies do you have altogether?	Check in about what is happening and what they are thinking
Math Facts The Fact Practice activity will be different each day. You may use dice, dominoes, cards, white board, or other items to practice the math facts that are appropriate for the grade level students are in. In order for youth to practice effectively, you will need to teach each game following the protocol below. Step 1: Basic Information - Tell the students the name of the game. - Tell them the skill that they will be practicing. - Tell them the materials they will need to play the game. - Tell them how many people may play the game at one time. - Tell them if the game is cooperative (all students working together to defeat the game) or competitive (each student hopes to defeat the other players). - Tell them how they will know that the game is over. - Remind them of how to choose who will be first. - Remind them at the end of the game that they will need to do to clean-up.	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.
Ston 2. Demonstration	

Step 2: Demonstration



 Talk the students through the game. Give the rules (it is best if they can see these). Give a demonstration or a "for example" 	
- Give a demonstration or a "for example"	
- Check for understanding by asking students to tell another student "how" to play the game	
from what they observed.	
Step 3: Model	
- Ask for 2-3 student volunteers to play a "teaching game" so the remainder of the class can	
see the game played from beginning to end.	
- Ask other students to make a circle around the volunteers so they can see how the game is	
played.	
 Go through the game step by step having the volunteers actually make the plays. 	
 Ask players to explain what they were thinking when they made a particular move. 	
- Ask onlookers to make observations or ask questions.	
- After playing the game for several minutes, praise the first volunteers and ask for 2-3 more.	
 Replay the game with the new volunteers, providing less direction but being very responsive if 	
the players are stuck or playing the game incorrectly.	
- Ask players to explain what they were thinking when they made a particular move.	
 Ask onlookers to make observations or ask questions. 	
 Check for understanding by asking students to tell another student "how" to play the game 	
from what they observed.	
Fact Practice	
Addition War or Multiplication War	
Divide students into pairs. Give each pair a deck of cards without face cards and	
jokers.	
 Shuffle the deck and divide the cards evenly between the two players. 	
 On go, the players turn over the cards at the same time. 	
 Students add (or multiply) the 2 numbers that have been turned up. 	
• First person to give the answer either wins the cards because the answer is correct, or	
has to turn over 2 cards because he/she gave the wrong answer.	
• At the end of round, students may reshuffle the pile of cards that they have.	
Play can continue until one player has all cards or time has called.	
Student Practice	
General guidelines for students playing games follow	
Step 4: Open Play Divide students into small groups (you might want to put a "volunteer" who played the game in	
 Divide students into small groups (you might want to put a "volunteer" who played the game in each of these small groups) 	
 Have the students play a practice game (no winners or losers) Note: If you are playing with 	
cards you might want to have the students display their hand of cards during Open Play.	
 Check for understanding by asking students to tell another student "how" to play the game 	
from what they experienced.	
Note: This is the last "practice" for the game. The majority of students will have a full understanding of	



the game by this point. There will be only minor tw	eaks and adjustments that need to be made.	
 Step 5: Play Have students play the game.' Circulate and answer questions as needed Debrief the game at the end asking stude What skill did you practice? What did you learn? What about the game was enjoy How would you have taught the 	nts: able? What makes you say that?	
Math VocabularyEach lesson will also have a vocabulary word that is appropriate for the grade level. The word may be reviewed more than one time. Youth need to complete the vocabulary entry in an Academic Vocabulary Notebook. The Vocabulary section will follow this pattern. We will practice working on this for the next 11 days.Word for Today: math 		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 math	My Description A term that is short for mathematics and is about numbers and patterns	It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word.
Personal Connection Math is one of my favorite subjects in	Drawing	When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students
school.	2+1 Cation Geometry 3x+4y=2a	acting out an equation). Vocabulary Notebooks can be made from ½ of a composition book.
Each day there will also be a mathematics activity	tivity that will occur in this space. This week we will not lay each of the Math Fact Games. This activity can	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

Three Whats

Ask the following three what questions:

What was your key learning for the day?

What opportunities might you have to do this same thing in the "real world"?

What advice would you give to a "new" student getting ready to do this activity?

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:	2 nd – 5 th Grade
Lesson Title:	Fore-Header
Focus:	Learning Each Math Lesson Segment

Materials:

Cards, one deck for every 3 students White boards, paper and pencil

Opening

State the objective

Today we are going to practice the different aspects of the math lesson plan.

Gain prior knowledge by asking students the following questions

What are some of the games that you know how to play?

What are some of the math vocabulary words that you know?

What do you think is meant by "Problem of the Day"?

Content (the "Meat")

Problem of the Day In this segment you will have a problem for students to complete. The problems will vary and	*Activity → Teachable Moment(s) <i>throughout</i>
will be both review and in line with the lesson. Write the problem on chart paper. Let youth work the problem on a white board either alone or with a partner. Following is a sample	During the lesson check in with students repeatedly.
problem: If you have 32 marbles and you lose 12, how many marbles do you have left? Math Facts	Check in about what is happening and what they are
The Fact Practice activity will be different each day. You may use dice, dominoes, cards, white board, or other items to practice the math facts that are appropriate for the grade level students are in. In order for youth to practice effectively, you will need to teach each game following the protocol below.	thinking. Take advantage of any teachable moments. Stop the class and focus on a student's key learning or
 Step 1: Basic Information Tell the students the name of the game. Tell them the skill that they will be practicing. Tell them the materials they will need to play the game. Tell them how many people may play the game at one time. Tell them if the game is cooperative (all students working together to defeat the game) or competitive (each student hopes to defeat the other players). Tell them how they will know that the game is over. Remind them of how to choose who will be first. Remind them at the end of the game that they will need to do to clean-up. 	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.
Step 2: Demonstration - Talk the students through the game.	



- Give the rules (it is best if they can see these).
- Give a demonstration or a "for example"
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

Step 3: Model

- Ask for 2-3 student volunteers to play a "teaching game" so the remainder of the class can see the game played from beginning to end.
- Ask other students to make a circle around the volunteers so they can see how the game is played.
- Go through the game step by step having the volunteers actually make the plays.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- After playing the game for several minutes, praise the first volunteers and ask for 2-3 more.
- Replay the game with the new volunteers, providing less direction but being very responsive if the players are stuck or playing the game incorrectly.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

Fact Practice

Fore-header

- 1. Divide students into trios. Give each trio a deck of cards without face cards and jokers.
- 2. Shuffle the deck and give all of the cards to the referee who will be "judging" the contest.
- 3. On go, players are each handed a card by the referee and **WITHOUT** looking, put the card face out on his/her forehead.
- 4. The referee multiplies (or adds) the two numbers together and states the answer.
- 5. Each player looks at the other person's exposed number and names his/her own number
- **6.** Person who wins (accuracy and time), collects both cards.
- 7. Play continues until all cards are gone.
- Players can repeat play (if there is another time) with each other so each has an opportunity to be both a player and referee.

Student Practice

General guidelines for students playing games follow

Step 4: Open Play

- Divide students into small groups (you might want to put a "volunteer" who played the game in each of these small groups)
- Have the students play a practice game (no winners or losers) **Note:** If you are playing with cards you might want to have the students display their hand of cards during Open Play.
- Check for understanding by asking students to tell another student "how" to play the game from what they experienced.

Note: This is the last "practice" for the game. The majority of students will have a full understanding of the game by this point. There will be only minor tweaks and adjustments that need to be made.



Step 5: Play - Have students play the game.' - Circulate and answer questions as needed - Debrief the game at the end asking stude o What skill did you practice? o What did you learn? o What about the game was enjoy o How would you have taught the	ents: vable? What makes you say that?	
Math V Each lesson will also have a vocabulary word may be reviewed more than one time. Youth Academic Vocabulary Notebook. The Vocabu practice working on this for the next 11 days. Word for Today: operations Description: The word operation refers to a are addition, subtraction, multiplication, and di +, -, X, and ÷. Complete the journal entry in your Vocabulary 2, explain the word in your own words. In spa demonstrate your understanding of the word b 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 acting out an equation). Vocabulary Notebooks can be made from ½ of a composition book. It is important to review	
New Word operations	My Description There 4 basic operations: addition, subtraction, multiplication and division	academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word.
Personal Connection How many of the operations can you complete?	Drawing	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 Each day there will also be a mathematics activity that will occur in this space. This week we will not do an activity here since you are learning how to play each of the Math Fact Games. This activity can be added to the Homework Center.		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

Three Whats

Ask the following three what questions:

What was your key learning for the day?

What opportunities might you have to do this same thing in the "real world"?

What advice would you give to a "new" student getting ready to do this activity?

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:	2 nd – 5 th Grade
Lesson Title:	Multiplication or Addition Ladder
Focus:	Learning Each Math Lesson Segment

Materials:

Dice

White boards, paper and pencil

Opening

State the objective

Today we are going to practice the different aspects of the math lesson plan.

Gain prior knowledge by asking students the following questions

What are some of the games that you know how to play?

What are some of the math vocabulary words that you know?

What do you think is meant by "Problem of the Day"?

Content (the "Meat")

Problem of the Day In this segment you will have a problem for students to complete. The problems will vary and	*Activity → Teachable Moment(s) <i>throughout</i>
will be both review and in line with the lesson. Write the problem on chart paper. Let youth work the problem on a white board either alone or with a partner. Following is a sample	During the lesson check in with students repeatedly.
problem: What do these symbols mean: < and >. Give an example.	Check in about what is happening and what they are
Math Facts	thinking.
The Fact Practice activity will be different each day. You may use dice, dominoes, cards, white board, or other items to practice the math facts that are appropriate for the grade level	Take advantage of any teachable moments.
students are in. In order for youth to practice effectively, you will need to teach each game following the protocol below.	Stop the class and focus on a student's key learning or
 Step 1: Basic Information Tell the students the name of the game. Tell them the skill that they will be practicing. Tell them the materials they will need to play the game. Tell them how many people may play the game at one time. Tell them if the game is cooperative (all students working together to defeat the game) or competitive (each student hopes to defeat the other players). Tell them how they will know that the game is over. Remind them of how to choose who will be first. Remind them at the end of the game that they will need to do to clean-up. 	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.
Step 2: Demonstration - Talk the students through the game.	



- Give the rules (it is best if they can see these).
- Give a demonstration or a "for example"
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

Step 3: Model

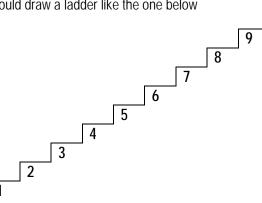
- Ask for 2-3 student volunteers to play a "teaching game" so the remainder of the class can see the game played from beginning to end.
- Ask other students to make a circle around the volunteers so they can see how the game is played.
- Go through the game step by step having the volunteers actually make the plays.
- Ask players to explain what they were thinking when they made a particular move. _
- Ask onlookers to make observations or ask questions.
- After playing the game for several minutes, praise the first volunteers and ask for 2-3 more.
- Replay the game with the new volunteers, providing less direction but being very responsive if the players are stuck or playing the game incorrectly.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

Fact Practice

Multiplication (or Addition) Ladder

1

- Give each student a white board (include marker or crayola) 1.
- 2. Student should draw a ladder like the one below



3. 3. Have student roll 2 dice, total the pips and then multiply (or add) that number times each of the numbers in the ladder, writing the total to the right of the number

Student Practice

General guidelines for students playing games follow

Step 4: Open Play

- Divide students into small groups (you might want to put a "volunteer" who played the game in each of these small groups)
- Have the students play a practice game (no winners or losers) Note: If you are playing with cards you might want to have the students display their hand of cards during Open Play.
- Check for understanding by asking students to tell another student "how" to play the game



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Math Each lesson will also have a vocabulary wo may be reviewed more than one time. You Academic Vocabulary Notebook. The Voca practice working on this for the next 11 days Word for Today: subtraction Description: Reducing a total by a specific what you started with and what you have af Complete the journal entry in your Vocabula 2, explain the word in your own words. In s demonstrate your understanding of the word Vocabulary Notebook Sample: New Word	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. It is important to review	
subtraction	y p.	
Personal Connection Do you know how to do subtraction problems?	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.	
Each day there will also be a mathematics activ do an activity here since you are learning how t be added to the Homework Center.	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?		

Three Whats

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What advice would you give to a "new" student getting ready to do this activity?

Reflection (Confirm, Tweak, Aha!)

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- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
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- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.

Debrief



Component	Math
Grade Level:	2 nd – 5 th Grade
Lesson Title:	Spokes on a Wheel
Focus:	Learning Each Math Lesson Segment

Materials:

Dice

White boards, paper and pencil

Opening

State the objective

Today we are going to practice the different aspects of the math lesson plan.

Gain prior knowledge by asking students the following questions

What are some of the games that you know how to play?

What are some of the math vocabulary words that you know?

What do you think is meant by "Problem of the Day"?

Content (the "Meat")

Problem of the Day In this segment you will have a problem for students to complete. The problems will vary and	*Activity → Teachable Moment(s) <i>throughout</i>
will be both review and in line with the lesson. Write the problem on chart paper. Let youth work the problem on a white board either alone or with a partner. Following is a sample	During the lesson check in with students repeatedly.
problem: If there are 5 rows and each row has 5 chairs in it, how many chairs are there?	Check in about what is happening and what they are
Math Facts	thinking.
The Fact Practice activity will be different each day. You may use dice, dominoes, cards, white board, or other items to practice the math facts that are appropriate for the grade level	Take advantage of any teachable moments.
students are in. In order for youth to practice effectively, you will need to teach each game following the protocol below.	Stop the class and focus on a student's key learning or
 Step 1: Basic Information Tell the students the name of the game. Tell them the skill that they will be practicing. Tell them the materials they will need to play the game. 	understanding. Ask open- ended questions to determine what the rest of the group is thinking.
 Tell them how many people may play the game at one time. Tell them if the game is cooperative (all students working together to defeat the game) or competitive (each student hopes to defeat the other players). 	When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.
- Tell them how they will know that the game is over.	
 Remind them of how to choose who will be first. Remind them at the end of the game that they will need to do to clean-up. 	
Step 2: Demonstration - Talk the students through the game.	



_	Give the rules (it is best if they can see these	;).
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- Give a demonstration or a "for example"
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

Step 3: Model

- Ask for 2-3 student volunteers to play a "teaching game" so the remainder of the class can see the game played from beginning to end.
- Ask other students to make a circle around the volunteers so they can see how the game is played.
- Go through the game step by step having the volunteers actually make the plays.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- After playing the game for several minutes, praise the first volunteers and ask for 2-3 more.
- Replay the game with the new volunteers, providing less direction but being very responsive if the players are stuck or playing the game incorrectly.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

Fact Practice

Spokes on a Wheel

- 1. Divide students into pairs
- 2. On a white board, student draws a small circle with 9 spokes coming out of it (should look like a bicycle tire)
- 3. Have students choose to put a 6, 7 or 8 in the center circle
- 4. Student rolls two dice and adds the pips (dots)
- 5. Taking this total, student writes a math problem on one of the spokes (eg. 7 is in the circle and students rolls a 3 and 5 which totals 8. The spoke equation would look like $7 \times 8 = 56$ or 6 + 8 = 14)
- 6. Process continues until all spokes have an equation

Student Practice

General guidelines for students playing games follow

Step 4: Open Play

- Divide students into small groups (you might want to put a "volunteer" who played the game in each of these small groups)
- Have the students play a practice game (no winners or losers) **Note:** If you are playing with cards you might want to have the students display their hand of cards during Open Play.
- Check for understanding by asking students to tell another student "how" to play the game from what they experienced.

Note: This is the last "practice" for the game. The majority of students will have a full understanding of the game by this point. There will be only minor tweaks and adjustments that need to be made.



Step 5: Play				
- Have students play the game.'				
- Circulate and answer questions as ne				
 Debrief the game at the end asking st 				
• What skill did you practice?				
• What did you learn?				
5	njoyable? What makes you say that?			
• How would you have taught				
5 5	5			
Math	Nocabulary	It is important to review		
	ord that is appropriate for the grade level. The word the need to complete the vocabulary entry in an	academic math vocabulary often throughout the day.		
	abulary section will follow this pattern. We will	Complete the Vocabulary		
practice working on this for the next 11 day		notebook for each word.		
Word for Today: addition		When possible, have		
Description: Combining two or more grou	ps of things (usually representing by numerals) and	students experience the word (Ex. 4 students creating a		
finding a total.	any Natabaak In space 1 write the word In space	right angle, multiple students		
	Complete the journal entry in your Vocabulary Notebook. In space 1, write the word. In space 2, explain the word in your own words. In space 3 use the word in a sentence. In space 4			
demonstrate your understanding of the wor		acting out an equation). Vocabulary Notebooks can		
demonstrate your understanding of the wor	a by drawing a picture of the word.	be made from ½ of a		
Vocabulary Notebook Sample:		composition book.		
New Word	My Description	It is important to review		
	My Description	academic math vocabulary		
addition	Combining the values of two or more things into	often throughout the day.		
addition	a whole	Complete the Vocabulary		
		notebook for each word.		
Personal Connection	Drawing	When possible, have		
Fersonal Connection	Drawing	students experience the word		
De ver know how to de addition	7 1 2 = 40	(Ex. 4 students creating a		
Do you know how to do addition		right angle, multiple students		
problems?		acting out an equation).		
		Vocabulary Notebooks can		
		be made from ½ of a		
		composition book.		
	Activity			
	Activity	Focus on having young people "compete" in pairs or		
Fach dow there will also be a mathematics and	the that will accur in this appear. This weak we will not	small groups. Once a game		
	vity that will occur in this space. This week we will not to play each of the Math Fact Games. This activity can	is mastered you can utilize it		
be added to the Homework Center.	o piay cach of the matter act Gathes. This activity Call	in the "When Homework Is		
		Complete" center.		



Closing

Review

Say:

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

Debrief

Three Whats

Ask the following three what questions:

What was your key learning for the day?

What opportunities might you have to do this same thing in the "real world"?

What advice would you give to a "new" student getting ready to do this activity?

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:	2 nd – 5 th Grade
	Spot and Dots
Focus:	Learning Each Math Lesson Segment

Materials:

Cards, one deck for every 2 students White boards, paper and pencil

Opening

State the objective

Today we are going to practice the different aspects of the math lesson plan.

Gain prior knowledge by asking students the following questions

What are some of the games that you know how to play?

What are some of the math vocabulary words that you know?

What do you think is meant by "Problem of the Day"?

Content (the "Meat")

Problem of the Day In this segment you will have a problem for students to complete. The problems will vary and	*Activity → Teachable Moment(s) <i>throughout</i>
will be both review and in line with the lesson. Write the problem on chart paper. Let youth work the problem on a white board either alone or with a partner. Following is a sample	During the lesson check in with students repeatedly.
problem: If you have 11 rows and each row has 6 chairs in it, how many chairs do you have in all?	Check in about what is happening and what they are thinking
Math Facts The Fact Practice activity will be different each day. You may use dice, dominoes, cards, white board, or other items to practice the math facts that are appropriate for the grade level students are in. In order for youth to practice effectively, you will need to teach each game following the protocol below. Step 1: Basic Information - - Tell the students the name of the game. - Tell them the skill that they will be practicing. - Tell them the materials they will need to play the game. - Tell them the materials they will need to play the game. - Tell them fit he game is cooperative (all students working together to defeat the game) or competitive (each student hopes to defeat the other players). - Tell them how they will know that the game is over. - Remind them of how to choose who will be first. - Remind them at the end of the game that they will need to do to clean-up.	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.
· · · · · · · · · · · · · · · · · · ·	

Step 2: Demonstration



- Talk the students through the game.
- Give the rules (it is best if they can see these).
- Give a demonstration or a "for example"
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

Step 3: Model

- Ask for 2-3 student volunteers to play a "teaching game" so the remainder of the class can see the game played from beginning to end.
- Ask other students to make a circle around the volunteers so they can see how the game is played.
- Go through the game step by step having the volunteers actually make the plays.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- After playing the game for several minutes, praise the first volunteers and ask for 2-3 more.
- Replay the game with the new volunteers, providing less direction but being very responsive if the players are stuck or playing the game incorrectly.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

Fact Practice

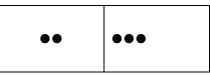
Fact Practice - Spots and Dots

There is a master of Double 9 Dominos attached to this lesson plan. You will need 1 full set for each pair of students in your class. It is recommended that you duplicate on card stock and if possible, laminate for use again in the future.

Players sit across from each other.

Dominoes are between them, face (or spots) down.

Each student draws a domino and writes the multiplication (or addition) problem on their white board, multiplying (or adding) the numbers represented by the spots Example: Domino drawn is



Multiplication: $2 \times 3 = 6$ Addition: 2 + 3 = 5

Student Practice

General guidelines for students playing games follow

Step 4: Open Play

- Divide students into small groups (you might want to put a "volunteer" who played the game in each of these small groups)



 Have the students play a practice game (r cards you might want to have the students Check for understanding by asking studen from what they experienced. Note: This is the last "practice" for the game. The 			
the game by this point. There will be only minor tw	eaks and adjustments that need to be made.		
 Step 5: Play Have students play the game.' Circulate and answer questions as needed Debrief the game at the end asking studer What skill did you practice? What did you learn? What about the game was enjoya How would you have taught the game 			
Math Vo Each lesson will also have a vocabulary word t may be reviewed more than one time. Youth n Academic Vocabulary Notebook. The Vocabul practice working on this for the next 11 days. Word for Today: pentagon Description: A flat-5 side figure. It looks a litt Complete the journal entry in your Vocabulary 2, explain the word in your own words. In space demonstrate your understanding of the word by Vocabulary Notebook Sample: New Word pentagon	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. It is important to review academic math vocabulary often throughout the day.		
Personal Connection The Pentagon is a 5-sided building.	Drawing	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

Each day there will also be a mathematics activity that will occur in this space. This week we will not do an activity here since you are learning how to play each of the Math Fact Games. This activity can be added to the Homework Center.

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

Three Whats

Ask the following three what questions:

What was your key learning for the day?

What opportunities might you have to do this same thing in the "real world"?

What advice would you give to a "new" student getting ready to do this activity?

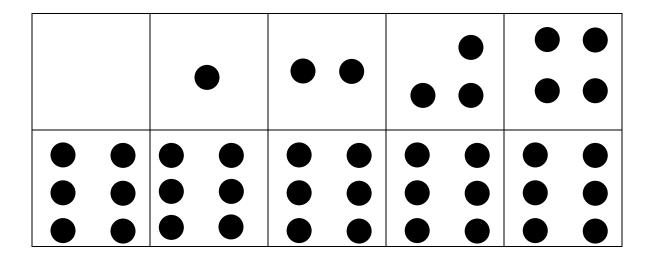
Reflection (Confirm, Tweak, Aha!)

- 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.



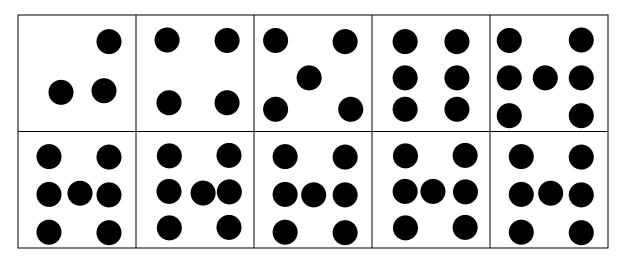
Double 9 Dominoes

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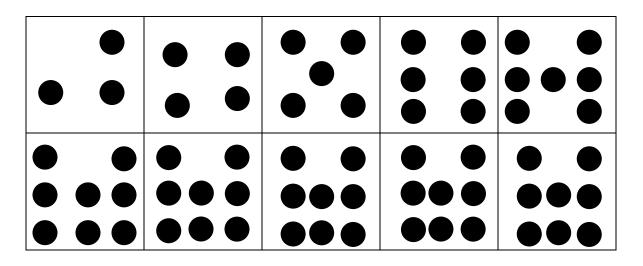


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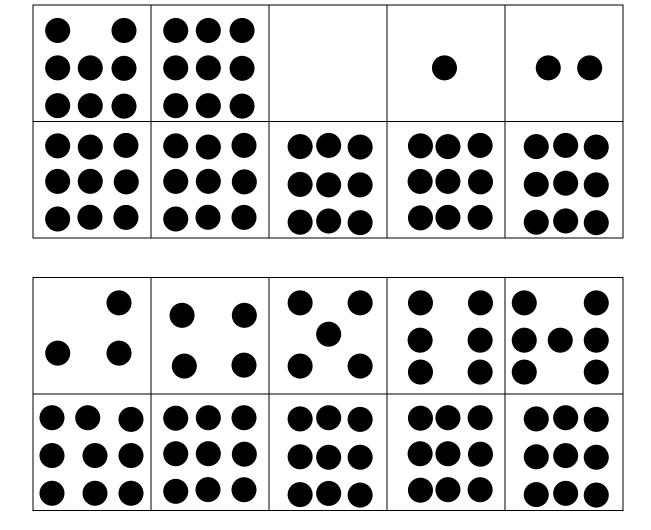




Do not use		
Do not use		$\bullet \bullet \bullet$











Component	Math
Grade Level:	2 nd – 5 th Grade
Lesson Title:	Draw
Focus:	Learning Each Math Lesson Segment

Materials:

Cards, one deck for every 2 students White boards, paper and pencil

Opening

State the objective

Today we are going to practice the different aspects of the math lesson plan.

Gain prior knowledge by asking students the following questions

What are some of the games that you know how to play?

What are some of the math vocabulary words that you know?

What do you think is meant by "Problem of the Day"?

Content (the "Meat")

content (the meat)	
Problem of the Day In this segment you will have a problem for students to complete. The problems will vary and	*Activity → Teachable Moment(s) <i>throughout</i>
will be both review and in line with the lesson. Write the problem on chart paper. Let youth work the problem on a white board either alone or with a partner. Following is a sample	During the lesson check in with students repeatedly.
problem: Joe has 8 coins. Judy has 9 coins. How many coins do they have together?	Check in about what is happening and what they are
Math Facts	thinking.
The Fact Practice activity will be different each day. You may use dice, dominoes, cards, white board, or other items to practice the math facts that are appropriate for the grade level	Take advantage of any teachable moments.
students are in. In order for youth to practice effectively, you will need to teach each game following the protocol below.	Stop the class and focus on a student's key learning or
 Step 1: Basic Information Tell the students the name of the game. Tell them the skill that they will be practicing. Tell them the materials they will need to play the game. Tell them how many people may play the game at one time. Tell them if the game is cooperative (all students working together to defeat the game) or competitive (each student hopes to defeat the other players). Tell them how they will know that the game is over. Remind them of how to choose who will be first. Remind them at the end of the game that they will need to do to clean-up. 	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.
Step 2: Demonstration - Talk the students through the game.	



-	Give the rules (it is best if they can see the	nese).

- Give a demonstration or a "for example"
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

Step 3: Model

- Ask for 2-3 student volunteers to play a "teaching game" so the remainder of the class can see the game played from beginning to end.
- Ask other students to make a circle around the volunteers so they can see how the game is played.
- Go through the game step by step having the volunteers actually make the plays.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- After playing the game for several minutes, praise the first volunteers and ask for 2-3 more.
- Replay the game with the new volunteers, providing less direction but being very responsive if the players are stuck or playing the game incorrectly.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

Fact Practice

Draw!

- 1. Divide students into pairs and give each pair a deck of cards.
- 2. Remove the face cards and jokers from the deck of cards.
- 3. Shuffle the deck.
- 4. Decide who will go first.
- 5. First player draws two cards.
- 6. Student multiplies (adds) the cards.
- 7. Student writes his/her problem on the white board, writing a complete number sentence.
- 8. Students take turns drawing and creating problems.

Student Practice

General guidelines for students playing games follow

Step 4: Open Play

- Divide students into small groups (you might want to put a "volunteer" who played the game in each of these small groups)
- Have the students play a practice game (no winners or losers) **Note:** If you are playing with cards you might want to have the students display their hand of cards during Open Play.
- Check for understanding by asking students to tell another student "how" to play the game from what they experienced.

Note: This is the last "practice" for the game. The majority of students will have a full understanding of the game by this point. There will be only minor tweaks and adjustments that need to be made.



Step 5: Play		
- Have students play the game.'		
- Circulate and answer questions as		
 Debrief the game at the end asking 		
 What skill did you practice 	??	
 What did you learn? 		
	enjoyable? What makes you say that?	
 How would you have taug 	ht the game differently?	
M	ath Vocabulary	It is important to review
Each lesson will also have a vocabulary	word that is appropriate for the grade level. The word	academic math vocabulary
	outh need to complete the vocabulary entry in an	often throughout the day.
Academic Vocabulary Notebook. The V practice working on this for the next 11 c	ocabulary section will follow this pattern. We will lays	Complete the Vocabulary notebook for each word.
Word for Today: circle		When possible, have
Description: A circle is a 2-dimensiona same distance from the center. A circle	I shape made by drawing a curve that is always the is round. bulary Notebook. In space 1, write the word. In space	students experience the word (Ex. 4 students creating a right angle, multiple students
	n space 3 use the word in a sentence. In space 4	acting out an equation).
demonstrate your understanding of the v	1 1	Vocabulary Notebooks can be made from ½ of a
Vocabulary Notebook Sample:		composition book.
New Word	My Description	It is important to review academic math vocabulary
circle	A closed figure that is made with a single	often throughout the day.
	arching line	Complete the Vocabulary notebook for each word.
Personal Connection	Drawing	When possible, have
That clock is a circle.	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	Focus on having young people "compete" in pairs or
	ctivity that will occur in this space. This week we will not w to play each of the Math Fact Games. This activity can	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

Three Whats

Ask the following three what questions:

What was your key learning for the day?

What opportunities might you have to do this same thing in the "real world"?

What advice would you give to a "new" student getting ready to do this activity?

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:	2 nd – 5 th Grade
Lesson Title:	Target
Focus:	Learning Each Math Lesson Segment

Materials:

Cards, one deck for every 2 students White boards, paper and pencil

Opening

State the objective

Today we are going to practice the different aspects of the math lesson plan.

Gain prior knowledge by asking students the following questions

What are some of the games that you know how to play?

What are some of the math vocabulary words that you know?

What do you think is meant by "Problem of the Day"?

Content (the "Meat")

Problem of the Day In this segment you will have a problem for students to complete. The problems will vary and	*Activity → Teachable Moment(s) <i>throughout</i>
will be both review and in line with the lesson. Write the problem on chart paper. Let youth work the problem on a white board either alone or with a partner. Following is a sample	During the lesson check in with students repeatedly.
problem: How much money do you have if you have 3 dimes, 4 nickels, 8 pennies, and one quarter?	Check in about what is happening and what they are thinking.
Math Facts The Fact Practice activity will be different each day. You may use dice, dominoes, cards, white board, or other items to practice the math facts that are appropriate for the grade level students are in. In order for youth to practice effectively, you will need to teach each game following the protocol below. Step 1: Basic Information - Tell the students the name of the game. - Tell them the skill that they will be practicing. - Tell them the materials they will need to play the game. - Tell them fit the game is cooperative (all students working together to defeat the game) or competitive (each student hopes to defeat the other players). - Tell them how they will know that the game is over. - Remind them of how to choose who will be first. - Remind them at the end of the game that they will need to do to clean-up.	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.

Step 2: Demonstration



-	Talk the students through the game.	
-	Give the rules (it is best if they can see these).	
-	Give a demonstration or a "for example"	
-	Check for understanding by asking students to tell another student "how" to play the game	
	from what they observed.	
Step 3:	Model	
	Ask for 2-3 student volunteers to play a "teaching game" so the remainder of the class can	
	see the game played from beginning to end.	
-	Ask other students to make a circle around the volunteers so they can see how the game is	
	played.	
-	Go through the game step by step having the volunteers actually make the plays.	
-	Ask players to explain what they were thinking when they made a particular move.	
-	Ask onlookers to make observations or ask questions.	
-	After playing the game for several minutes, praise the first volunteers and ask for 2-3 more.	
-	Replay the game with the new volunteers, providing less direction but being very responsive if	
	the players are stuck or playing the game incorrectly.	
-	Ask players to explain what they were thinking when they made a particular move.	
-	Ask onlookers to make observations or ask questions.	
-	Check for understanding by asking students to tell another student "how" to play the game	
	from what they observed.	
	Fact Practice	
Target		
1.	Divide students into trios.	
2.	Each trio needs a deck of cards without face cards and jokers.	
3.	Place the cards face up in a TicTac Toe Grid.	
4.	Turn up a 10 th card which will be to the side and becomes the target number (aces count as 1).	
5.	Each player makes an equation with some or all of the numbers in the grid to equal the target	
5.	number. Students may add, subtract, multiply or divide.	
6.	Each card may be used only one time in the equation.	
7.	As the cards are being picked up, the player must say the equation aloud—for example if the	
	target card is 10, then I could say 5 x 2 = 10, and pick up the 5 and the 2.	
8.	After one player finishes his/her turn, then the cards taken are replaced by cards from the	
	remaining deck.	
9.	Player with the most cards at the end of the game win.	
	Student Practice	
Conora	I guidelines for students playing games follow	
	Open Play	
- Jicp 4.	Divide students into small groups (you might want to put a "volunteer" who played the game in	
	each of these small groups)	
_	Have the students play a practice game (no winners or losers) Note: If you are playing with	
	cards you might want to have the students display their hand of cards during Open Play.	
	Check for understanding by acting students to tall another student "bout" to play the gene	1

- Check for understanding by asking students to tell another student "how" to play the game from what they experienced.



Note: This is the last "practice" for the game. The the game by this point. There will be only minor tw		
 Step 5: Play Have students play the game.' Circulate and answer questions as needer Debrief the game at the end asking student What skill did you practice? What did you learn? What about the game was enjoyation How would you have taught the game 	nts: able? What makes you say that?	
Math Vocabulary Each lesson will also have a vocabulary word that is appropriate for the grade level. The word may be reviewed more than one time. Youth need to complete the vocabulary entry in an Academic Vocabulary Notebook. The Vocabulary section will follow this pattern. We will practice working on this for the next 11 days. Word for Today: triangle Description: A shape that has three sides and three angles. Complete the journal entry in your Vocabulary Notebook. In space 1, write the word. In space 2, explain the word in your own words. In space 3 use the word in a sentence. In space 4 demonstrate your understanding of the word by drawing a picture of the word. Vocabulary Notebook Sample: My Description Integration A three-sided flat shape		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. It is important to review academic math vocabulary often throughout the day.
Personal Connection Have you seen a triangle?	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	
Act Each day there will also be a mathematics activity do an activity here since you are learning how to pl be added to the Homework Center.	be made from ½ of a composition book. 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

Three Whats

Ask the following three what questions:

What was your key learning for the day?

What opportunities might you have to do this same thing in the "real world"?

What advice would you give to a "new" student getting ready to do this activity?

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:	2 nd – 5 th Grade
Lesson Title:	Number Hunt or Product Hunt
Focus:	Learning Each Math Lesson Segment

Materials:

12-sided dice (1 pair for every 2 students) White boards, paper and pencil

Opening

State the objective

Today we are going to practice the different aspects of the math lesson plan.

Gain prior knowledge by asking students the following questions

What are some of the games that you know how to play?

What are some of the math vocabulary words that you know?

What do you think is meant by "Problem of the Day"?

Content (the "Meat")

Problem of the Day	*Activity → Teachable
In this segment you will have a problem for students to complete. The problems will vary and	Moment(s) throughout
will be both review and in line with the lesson. Write the problem on chart paper. Let youth	During the lesson check in
work the problem on a white board either alone or with a partner. Following is a sample	with students repeatedly.
problem: Think of the following shapes: $\triangle \bigcirc \Box \bigcirc$	Check in about what is
Organize them in some way and then share that organization with a partner.	happening and what they are
	thinking.
Math Facts	Take advantage of any
The Fact Practice activity will be different each day. You may use dice, dominoes, cards,	teachable moments.
white board, or other items to practice the math facts that are appropriate for the grade level	Stop the class and focus on a
students are in. In order for youth to practice effectively, you will need to teach each game	student's key learning or
following the protocol below.	understanding. Ask open-
Step 1: Basic Information	ended questions to
- Tell the students the name of the game.	determine what the rest of
- Tell them the skill that they will be practicing.	the group is thinking.
- Tell them the materials they will need to play the game.	When possible, engage
- Tell them how many people may play the game at one time.	students in a "teach to learn"
- Tell them if the game is cooperative (all students working together to defeat the game) or	opportunity and have the
competitive (each student hopes to defeat the other players).	student become the teacher.
- Tell them how they will know that the game is over.	
- Remind them of how to choose who will be first.	
- Remind them at the end of the game that they will need to do to clean-up.	
Step 2: Demonstration	



- Talk the students through the game.
- Give the rules (it is best if they can see these).
- Give a demonstration or a "for example"
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

Step 3: Model

- Ask for 2-3 student volunteers to play a "teaching game" so the remainder of the class can see the game played from beginning to end.
- Ask other students to make a circle around the volunteers so they can see how the game is played.
- Go through the game step by step having the volunteers actually make the plays.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- After playing the game for several minutes, praise the first volunteers and ask for 2-3 more.
- Replay the game with the new volunteers, providing less direction but being very responsive if the players are stuck or playing the game incorrectly.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

Fact Practice

Number Hunt (Grades 1-3—Game Board Attached)

- 1. Divide students into pairs.
- 2. Each pair needs a Number Hunt sheet (attached to this lesson plans).
- 3. Player rolls two, 12-sided dice.
- 4. Player adds or subtracts the two numbers.
- 5. If the number is not yet covered, then player may cover the number.
- 6. Next player repeats steps 1-3.

Winner is determined by who has the most numbers covered.

Product Hunt (Grades 3-5—Game Board Attached)

- 7. Divide students into pairs.
- 8. Each pair needs a Product Hunt sheet (attached to this lesson plans).
- 9. Player rolls two, 12-sided dice.
- 10. Player multiplies the two numbers.
- 11. If the product is not yet covered, then player may cover the product.
- 12. Next player repeats steps 1-3.
- 13. Winner is determined by who has the most numbers covered.

Student Practice

General guidelines for students playing games follow Step 4: Open Play

- Divide students into small groups (you might want to put a "volunteer" who played the game in



 each of these small groups) Have the students play a practice game (r cards you might want to have the students Check for understanding by asking studen from what they experienced. 		
Note: This is the last "practice" for the game. The the game by this point. There will be only minor two	majority of students will have a full understanding of eaks and adjustments that need to be made.	
 Step 5: Play Have students play the game.' Circulate and answer questions as needed Debrief the game at the end asking studer What skill did you practice? What did you learn? What about the game was enjoya How would you have taught the game 	nts: able? What makes you say that?	
Math Vo Each lesson will also have a vocabulary word t may be reviewed more than one time. Youth n Academic Vocabulary Notebook. The Vocabul practice working on this for the next 11 days. Word for Today: square Description: A shape that has four sides that Complete the journal entry in your Vocabulary 2, explain the word in your own words. In space demonstrate your understanding of the word by 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 acting out an equation). Vocabulary Notebooks can be made from ½ of a	
New Word square	composition book. It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary	
Personal Connection That clock is in the shape of a square.	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

Each day there will also be a mathematics activity that will occur in this space. This week we will not do an activity here since you are learning how to play each of the Math Fact Games. This activity can be added to the Homework Center.

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

Three Whats

Ask the following three what questions:

What was your key learning for the day?

What opportunities might you have to do this same thing in the "real world"?

What advice would you give to a "new" student getting ready to do this activity?

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.



Product Hunt

48	20	81	3	45	27
1	24	108	77	7	40
120	72	96	8	18	60
14	144	70	22	15	11
33	35	66	132	63	16
12	30	28	110	100	49
6	36	21	121	90	2
84	5	44	25	99	10
32	9	56	88	4	11
24	50	55	54	42	80



Number Hunt

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	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

Number Hunt

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	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50



Component	Math
Grade Level:	2 nd – 5 th Grade
Lesson Title:	Bump I Up and Add A Zero
Focus:	Learning Each Math Lesson Segment

Materials:

Dice, cards, game boards White boards, paper and pencil

Opening

State the objective

Today we are going to practice the different aspects of the math lesson plan.

Gain prior knowledge by asking students the following questions

What are some of the games that you know how to play?

What are some of the math vocabulary words that you know?

What do you think is meant by "Problem of the Day"?

Content (the "Meat")

Problem of the Day In this segment you will have a problem for students to complete. The problems will vary and	*Activity → Teachable Moment(s) <i>throughout</i>
will be both review and in line with the lesson. Write the problem on chart paper. Let youth work the problem on a white board either alone or with a partner. Following is a sample problem:	During the lesson check in with students repeatedly.
problem: I have \$1.00. I spend \$.68. How much do I have left?	Check in about what is happening and what they are
Math Facts The Fact Practice activity will be different each day. You may use dice, dominoes, cards,	thinking. Take advantage of any
white board, or other items to practice the math facts that are appropriate for the grade level students are in. In order for youth to practice effectively, you will need to teach each game	teachable moments.
following the protocol below. Step 1: Basic Information	Stop the class and focus on a student's key learning or understanding. Ask open-
 Tell the students the name of the game. Tell them the skill that they will be practicing. 	ended questions to determine what the rest of the group is thinking
Tell them the materials they will need to play the game.Tell them how many people may play the game at one time.	the group is thinking. When possible, engage
 Tell them if the game is cooperative (all students working together to defeat the game) or competitive (each student hopes to defeat the other players). 	students in a "teach to learn" opportunity and have the student become the teacher.
Tell them how they will know that the game is over.Remind them of how to choose who will be first.	
- Remind them at the end of the game that they will need to do to clean-up.	
Step 2: Demonstration - Talk the students through the game.	



- Give the rules (it is best if they can see these).
- Give a demonstration or a "for example"
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

Step 3: Model

- Ask for 2-3 student volunteers to play a "teaching game" so the remainder of the class can see the game played from beginning to end.
- Ask other students to make a circle around the volunteers so they can see how the game is played.
- Go through the game step by step having the volunteers actually make the plays.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- After playing the game for several minutes, praise the first volunteers and ask for 2-3 more.
- Replay the game with the new volunteers, providing less direction but being very responsive if the players are stuck or playing the game incorrectly.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

Fact Practice

Bump It Up! Add A Zero

- 1. Divide students into pairs
- 2. Give each pair a white board and a deck of cards (without face cards, jokers, or 10s)
- 3. The object of this fact practice is to sum numbers until you reach 1,000.
- 4. Student draws 2 cards, adds the value of the cards together, multiplies by ten and writes the total on the sheet.
- 5. It is not the other person's turn to do the same
- 6. When play returns to the first player, the process is repeated, although this time, the totals are added together.
- 7. First person to 1,000 wins.

Example: Player draws a 7 and a 4. Total is 11. Multiply by 10 (add the zero) equals 110. Next turn, player draws a 3 and a 2 which totals 5. Multiply by 10 and I now add 50 to 110 for a total of 160.

Multiples

Multiplication facts are learned by recognizing the multiples of any given number. In this practice you will be determining the multiples of randomly generated numbers. You will need a chart and crayolas (150 chart).

1. Roll one or two dice (if you roll two add the numbers together to determine the factor in the fact practice)



2. Mark all multiples of the number and th	en pass off to the next person.			
Player may mark the same number.				
Student	Practice			
General guidelines for students playing games	follow			
Step 4: Open Play				
5 I 5 5	ht want to put a "volunteer" who played the game in			
each of these small groups)				
	o winners or losers) Note: If you are playing with			
	display their hand of cards during Open Play.			
0,00	ts to tell another student "how" to play the game			
from what they experienced.				
Note: This is the last "practice" for the game. The	majority of students will have a full understanding of			
the game by this point. There will be only minor two				
	,			
Step 5: Play				
- Have students play the game.'				
 Circulate and answer questions as needed 				
 Debrief the game at the end asking studen 	ts:			
• What skill did you practice?				
• What did you learn?				
 What about the game was enjoya 				
 How would you have taught the g 	ame differently?			
Math Vo	It is important to review			
Each lesson will also have a vocabulary word the may be reviewed more than one time. Youth ne	nat is appropriate for the grade level. The word	academic math vocabulary often throughout the day.		
Academic Vocabulary Notebook. The Vocabula		Complete the Vocabulary		
practice working on this for the next 11 days.		notebook for each word.		
Word for Today: even		When possible, have students experience the word		
Description: Numbers that can be divided ever		(Ex. 4 students creating a		
2, explain the word in your own words. In space	Notebook. In space 1, write the word. In space	right angle, multiple students		
demonstrate your understanding of the word by		acting out an equation).		
action of the your and of an and of a long of the word by		Vocabulary Notebooks can		
Vocabulary Notebook Sample:		be made from ½ of a		
New Word				
	<i>y</i> 1	It is important to review		
even	Numbers that are not odd	academic math vocabulary		
		often throughout the day.		
Personal Connection	Personal Connection Drawing			
	5	notebook for each word.		
Are these numbers odd or even?		When possible, have		
	322, 46, 52, and 98 are even numbers	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	Focus on having young people "compete" in pairs or
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Fact Practice—Multiples

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	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150