## Consult 4 Kids Lesson Plans

| Component | Math |
| :--- | :--- |
| Grade Level: | $4^{\text {th }} \& 5^{\text {th }}$ Grades |
| Lesson Title: | Draw It |
| Focus: | Fractions |

## Materials:

| White boards | Activities at end of lesson plan |
| :--- | :--- |
| Crayolas | Vocabulary Notebooks |
| Socks | Deck of cards |

## Opening

## State the objective

Today we are going to practice using our math vocabulary and skills with fractions.

Gain prior knowledge by asking students the following questions
Fractions are a key part of being prepared to understand algebra. What do you know about fractions? When would you use your knowledge of fractions in the real world? Why is it important that items be divided equally? Explain a time when your understanding of fractions made handling a challenging situation easier. (Share with a friend if necessary).

| Content (the "Meat") |  |
| :--- | :--- |
| $\begin{array}{l}\text { Problem of the Day } \\ \text { Judy has } 125 \text { bananas and grapefruit in all. If she has 43 bananas, how many more } \\ \text { grapefruit than bananas does she have? Explain your answer. }\end{array}$ | $\begin{array}{l}\text { *Activity } \rightarrow \text { Teachable } \\ \text { Moment(s) throughout }\end{array}$ |
| During the lesson check in |  |
| with students repeatedly. |  |
| Check in about what is |  |$]$| happening and what they are |
| :--- |
| thinking. |

## Consult 4 Kids Lesson Plans

## Word for Today: denominator

Description: Denominator is a term that we use to describe the number of parts that a whole has been divided into. For example, the United States as a whole has 50 states. Each state would be $1 / 50$ states. The denominator lets you know how many parts there are if you look at the whole thing. Another example would be graham crackers. If you were to break graham crackers apart on the "lines" in the cracker only, you would have 4 parts and each single part would represent one of the four you would need to have the whole graham cracker. Ask students to talk with a peer and share other things that can be made into fractional parts.
Create an entry in your Vocabulary Notebook for the word denominator.
Vocabulary Notebook Sample:

| New Word picnic | My Description <br> Hot dogs, mustard, catsup, drinks, ball <br> games, family fun at the park |
| :--- | :--- |
| Personal Connection <br> I love to go to the park with my family. <br> We take a picnic lunch and barbeque hot <br> dogs. | Drawing |

## Activity

Fractions

## Drawing and Identifying Fractions

It is essential that students are able to identify and represent fractional parts. Be sure that students understand that the term fraction refers to a "part of a whole".

## Draw It

Directions:

1. Divide students into pairs.
2. Give each pair a white board and a deck of Draw It cards.
3. Player one draws a card and follows the directions, drawing onto the white board. If the drawing is correct, then the player keeps the card.
4. Player two repeats the process
5. Game is over when all cards have been drawn.
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 $1 / 2$ 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" 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" player getting ready to play this game so he/she could get all the blocks are completed.

## 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

4th-5th Grade Draw It!

| Draw a pizza (circular). Mark and <br> color $1 / 2$ of the pizza. | Use any kind of drawing that you <br> would like to show the fraction $\frac{7}{10}$ |
| :--- | :--- |
|  |  |
| Draw 8 shapes. Color in $1 / 2$ of |  |
| them | Draw 12 shapes. Color in $\frac{2}{3}$ of the <br> shapes. |
| Use any kind of drawing you like to |  |
| show the fraction $\frac{3}{5}$ | Draw a picture of a board. Mark <br> and color in $3 / 4$ of board. |
| Draw 12 shapes and color in $\frac{1}{3}$ of | Draw a pizza. Divide it into 8 <br> pieces. Color in $\frac{3}{8}$ of the pizza. |
| them. | ( |

Use any kind of drawing that you would like to show the fraction $\frac{5}{10}$. What is another way you could write the number you have marked?

Draw 18 circles. Color in $\frac{5}{6}$ of the circles.

Draw a board. Show $\frac{4}{5}$ of the board.

Draw 10 dimes. Circle $\frac{9}{10}$ of them. How much money does this represent?

Draw 16 squares. Color in $\frac{7}{8}$ of them.

Draw a picture that illustrates $\frac{4}{9}$

## Consult 4 Kids Lesson Plans

| Component | Math |
| :--- | :--- |
| Grade Level: | $4^{\text {th }} \& 5^{\text {th }}$ Grades |
| Lesson Title: | Draw It 2 |
| Focus: | Fractions |

## Materials:

| White boards | Decks of cards |
| :--- | :--- |
| Crayolas | Vocabulary Notebooks |
| Socks | Activity at end of lesson plan |



| Content (the "Meat") |  |
| :---: | :---: |
| Problem of the Day <br> Grandma planted 15 rows of flowers with 9 plants in each row. How many plants does she have in all. Write the equation to explain your work? | *Activity $\rightarrow$ Teachable Moment(s) throughout During the lesson check in with students repeatedly. |
| Fact Practice <br> Foreheader <br> 1. Divide students into trios. Give each trio a deck of cards without face cards and jokers. <br> 2. Shuffle the deck and give all of the cards to the referee who will be "judging" the contest <br> 3. On go, players are each handed a card by the referee and WITHOUT looking, put the card face out on his/her forehead <br> 4. The referee multiplies the two numbers together and states the answer <br> 5. Each player looks at the other person's exposed number and names his/her own number <br> 6. Person who wins (accuracy and time), collects both cards <br> 7. Play continues until all cards are gone. <br> 8. Players can repeat play (if there is another time) with each other so each has an opportunity to be both a player and referee | Check in about what is happening and what they are thinking. <br> Take advantage of any teachable moments <br> Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking When possible, engage students in "teaching to learn". |
| Math Vocabulary <br> Word for today: numerator | It is important to review academic math vocabulary |

Description: Numerator is the terms we use to designate the top number in a fraction. This number tells you how many of the pieces you actually have. To continue with the United States, the denominator is 50 because that is how many total states there are. If we were to wonder what fraction would describe the number of states that touch the Pacific Ocean, we would need to include Alaska, Hawaii, California, Oregon and Washington, so we would show the fraction as $\frac{5}{50}$ which could be reduced to $\frac{1}{10}$. Another example would be a dozen eggs. The denominator would be 12, and depending on how many eggs we were going to eat for breakfast, say 5 , we would have a numerator of 5 and a denominator of 12 or a fraction that would look like this: $\frac{5}{12}$.
Create an entry in your notebook for the term: numerator
Vocabulary Notebook Sample:

| New Word $\quad$ picnic | My Description <br> Hot dogs, mustard, catsup, drinks, ball <br> games, family fun at the park |
| :--- | :--- |
| Personal Connection <br> I love to go to the park with my family. <br> We take a picnic lunch and barbeque hot <br> dogs. | Drawing |

## Activity

Fractions

Students participated in this activity yesterday. Ask students what they learned about playing fractions that is helpful. Have students share strategies. Ask students to work in a trio that they did not work in yesterday.

## Drawing and Identifying Fractions

It is essential that students are able to identify and represent fractional parts. Be sure that students understand that the term fraction refers to a "part of a whole".

## Draw It

## Directions:

1. Divide students into pairs.
2. Give each pair a white board and a deck of Draw It cards.
3. Player one draws a card and follows the directions, drawing onto the white board. If the drawing is correct, then the player keeps the card.
4. Player two repeats the process
5. Game is over when all cards have been drawn.
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 $1 / 2$ 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

## Consult 4 Kids Lesson Plans

| Closing |
| :---: |
| Review <br> Say: <br> - Please recap what we did today. <br> - Did we achieve our objectives? |
| Debrief <br> Three Whats <br> Ask the following three what questions: <br> What was your key learning for the day? <br> What opportunities might you have to do this same thing in the "real world"? <br> 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

| Draw a pizza (circular). Mark and <br> color $1 / 2$ of the pizza. | Use any kind of drawing that you <br> would like to show the fraction $\frac{7}{10}$ |
| :--- | :--- |
| Draw 8 shapes. Color in $1 / 2$ of <br> them | Draw 12 shapes. Color in $\frac{2}{3}$ of the <br> shapes. |
| Use any kind of drawing you like to <br> show the fraction $\frac{3}{5}$ | Draw a picture of a board. Mark <br> and color in $3 / 4$ of board. |
| Draw 12 shapes and color in $\frac{1}{3}$ of | Draw a pizza. Divide it into 8 <br> pieces. Color in $\frac{3}{8}$ of the pizza. |
| them. |  |

Use any kind of drawing that you would like to show the fraction $\frac{5}{10}$. What is another way you could write the number you have marked?

Draw 18 circles. Color in $\frac{5}{6}$ of the circles.

Draw a board. Show $\frac{4}{5}$ of the board.

Draw 10 dimes. Circle $\frac{9}{10}$ of them. How much money does this represent?

Draw 16 squares. Color in $\frac{7}{8}$ of them.

| Component | Math |
| :--- | :--- |
| Grade Level: | $4^{\text {th }} \& 5^{\text {th }}$ Grades |
| Lesson Title: | Comparing Fractions |
| Focus: | Fractions |

## Materials:

White boards
Crayolas
Socks

Vocabulary Notebooks
dice
Activity at the end of the lesson plan

| Opening |
| :--- |
| State the objective |
| Today we are going to practice using our math vocabulary and skills working with fractions. |
| Gain prior knowledge by asking students the following questions |
| Fractions are a key part of being prepared to understand algebra. What do you know about fractions? When would you |
| use your knowledge of fractions in the real world? Why is it important that items be divided equally? Explain a time when |
| your understanding of fractions made handling a challenging situation easier. (Share with a friend if necessary). |
| Sometimes there is more than one way to represent a fraction. For example, if you $1 / 2$ of a dollar or you have 2 of the 4 |
| quarters you need to make a dollar, or $\frac{2}{4}$ of a dollar, you still have $1 / 2$ of a dollar, half of what you need to have a whole |
| dollar. Give another example of equivalent fractions. |

## Content (the "Meat")

Problem of the Day
Ten soccer balls are on the playground. 6 of the balls are white, the others are red. Write a decimal to show the fraction of the soccer balls that are red.

## 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 $7 \times 8=56$
6. Process continues until all spokes have an equation

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

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

|  | opportunity and have the student become the teacher |
| :---: | :---: |
| Math Vocabulary <br> Word for Today: equivalent <br> Description: Equivalent is a term we use to say that two things are equal. It is a way of saying that what you find on one side of an equal sign will be the same value as what you find on the other side. For example, $4+6=2+8$. We know that this is true because both 4 +6 and $2+8=10$. In fractions it works the same way. For example, if you had $1 / 2$ dozen eggs or you had $\frac{6}{12}$ of the eggs, you still have the same number. The difference is that you are speaking about parts in fractions and whole items in the other. <br> Students complete the Vocabulary Notebook <br> Vocabulary Notebook Sample: | It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word. <br> When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation) Vocabulary Notebooks can |
| New Word My Description <br> picnic Hot dogs, mustard, catsup, drinks, ball <br> games, family fun at the park | be made from $1 / 2$ of a composition book |
| Personal Connection Drawing <br> I love to go to the park with my family.  <br> We take a picnic lunch and barbeque hot  <br> dogs.  |  |
| Activity <br> Comparing Fractions <br> Comparison and Equivalent <br> Some fractions are equivalent and others are not. For example, if you have a dollar, you could have $1 / 2$ of a dollar by having $\frac{2}{4}$ of the quarters, $\frac{5}{10}$ of the dimes, $\frac{10}{20}$ of the nickels, and $\frac{50}{100}$ of the pennies. You would also have $1 / 2$ if you had $\frac{3}{6}, \frac{4}{8}$, or $\frac{7}{14}$. These fractions are all equivalent. When you compare fractions you can also discover that you have fractions that are not equivalent. For example, $\frac{3}{5}$ and $1 / 2$ are not equivalent. We can determine that if we look at the comparison below: $\square$ $\square$ <br> Today's activity will have students determine if fractions are equivalent and if they are not, then which is the largest fraction. | 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 |

## Consult 4 Kids Lesson Plans

## Compare

Directions

1. Divide the students into pairs
2. Give each pair a set of Compare cards
3. Player one draws a Compare card and determines if the fractions are equivalent and if not, which of the fractions is largest.
4. Player 2 checks Player 1's answer. If they agree play moves to Player 2. If not, then they discuss and determine the correct answer.
5. Player 2 then continues
6. Activity is over when all cards have been worked through.

## 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
$4^{\text {th }}$ and $5^{\text {th }}$ Grade-Compare



## Consult 4 Kids Lesson Plans

| Component | Math |
| :--- | :--- |
| Grade Level: | $4^{\text {th }} \& 5^{\mathrm{t} \mathrm{t}}$ Grades |
| Lesson Title: | Comparing Fractions 2 |
| Focus: | Fractions |

## Materials:

| White boards | Vocabulary Notebooks |
| :--- | :--- |
| Crayolas | Dice |
| Socks | Activity at the end of the lesson plan |


| Opening |
| :---: |
| State the objective |
| Today we are going to practice using our math vocabulary and skills with fractions. |

Gain prior knowledge by asking students the following questions
Fractions are a key part of being prepared to understand algebra. What do you know about fractions? When would you use your knowledge of fractions in the real world? Why is it important that items be divided equally? Explain a time when your understanding of fractions made handling a challenging situation easier. (Share with a friend if necessary). Sometimes there is more than one way to represent a fraction. For example, if you $1 / 2$ of a dollar or you have 2 of the 4 quarters you need to make a dollar, or $\frac{2}{4}$ of a dollar, you still have $1 / 2$ of a dollar, half of what you need to have a whole dollar. Give examples of equivalent fractions. Another thing we do with fractions is compare them to see which are the same, or which is greater or less than the others. If someone asked you if you would rather have $\frac{4}{5}$ of a dollar or $\frac{19}{20}$ it would be important for you to be able to compare so you would know what answer or decision to make.

| Content (the "Meat") |  |
| :--- | :--- |
| Study the symbols below. What are the next three symbols in this pattern? Explain your <br> answer. | *Activity $\rightarrow$ Teachable <br> Moment(s) throughout <br> During the lesson check in <br> with students repeatedly. <br> Check in about what is <br> happening and what they are <br> thinking. |
| Multiplication Ladder |  |
| 1. Give each student a white board (include marker or crayola) |  |
| 2. Student should draw a ladder like the one below |  |
| Fact Practice | Take advantage of any <br> teachable moments <br> Stop the class and focus on a <br> student's key learning or <br> understanding. Ask open- <br> ended questions to <br> determine what the rest of <br> the group is thinking |

## Consult 4 Kids Lesson Plans

| When |
| :--- | :--- | :--- |

Comparison and Equivalent Activity
Some fractions are equivalent and others are not. For example, if you have a dollar, you
could have $1 / 2$ of a dollar by having $\frac{2}{4}$ of the quarters, $\frac{5}{10}$ of the dimes, $\frac{10}{20}$ of the nickels, and
50 保 $\frac{50}{100}$ of the pennies. You would also have $1 / 2$ if you had $\frac{3}{6}, \frac{4}{8}$, or $\frac{7}{14}$. These fractions are all equivalent. When you compare fractions you can also discover that you have fractions that are not equivalent. For example, $\frac{3}{5}$ and $1 / 2$ are not equivalent. We can determine that if we look at the comparison below:
$\square$

|  | 1 |  |
| :--- | :--- | :--- |

Today's activity will have students determine if fractions are equivalent and if they are not, then which is the largest fraction.

## Compare

Directions

1. Divide the students into pairs
2. Give each pair a set of Compare cards
3. Player one draws a Compare card and determines if the fractions are equivalent and if not, which of the fractions is largest.
4. Player 2 check Player 1's answer. If they agree play moves to Player 2. If not, then they discuss and determine the correct answer.
5. Player 2 then continues
6. Activity is over when all cards have been worked through.

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
$4^{\text {th }}$ and $5^{\text {th }}$ Grade-Compare
If the drawings below are candy,
which is more: $\frac{1}{3}$ or $\frac{3}{5}$ Would you rather have $\frac{5}{6}$ of a


| Component | Math |
| :--- | :--- |
| Grade Level: | $4^{\text {th }} \& 5^{\text {th }}$ Grades |
| Lesson Title: | Simplest Form |
| Focus: | Fractions |

## Materials:

White boards
Crayolas
Socks

Vocabulary Notebooks
Cards
Activities at the end of this lesson plan

## Opening

## State the objective

Today we are going to practice using our math vocabulary and skills with fractions.

## Gain prior knowledge by asking students the following questions

Fractions are a key part of being prepared to understand algebra. What do you know about fractions? When would you use your knowledge of fractions in the real world? Why is it important that items be divided equally? When we are looking at fractions we can see them in two ways-an actual representation of the whole or an equivalent fraction that may be easier to understand. For example, if you were told that you had $\frac{17}{51}$ of the 51 pieces of candy, you would know that this is 17 of the 51 total pieces. But if you were asked if you would rather have $\frac{17}{51}$ or of a candy that was tied for your favorite or $\frac{2}{5}$ of your other favorite, that would be more difficult to decide-especially if there were a lot more pieces than 5 of your other favorite candy. If we look at it in its simplest form $\frac{17}{51}$ is the same as $\frac{1}{3}$ of the candy, so knowing this might make it easier for you to determine which candy you would most want. Share a time when having "easier" to think about information has been helpful or might be helpful.


## Consult 4 Kids Lesson Plans

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 $5 \times 2=10$, 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

## Math Vocabulary

## Word for Today: simplest form

Description: Simplest form is a term we can use in a conversation about fractions that refers to a fraction that has been put in its simplest form, a form that is easier to understand. When we are using large fractions we reduce them to their simplest form so it is easier for us to understand what is being discussed. The simplest form of $\frac{60}{120}$ or $\frac{350}{700}$ or $\frac{9}{18}$ is $\frac{1}{2}$. Once you understand that you are discussing one half of something, it is easier for you to get your brain wrapped around the concept.
Students should complete the Vocabulary Notebook
Vocabulary Notebook Sample:

| New Word $\quad$ picnic | My Description <br> Hot dogs, mustard, catsup, drinks, ball <br> games, family fun at the park |
| :--- | :--- |
| Personal Connection <br> I love to go to the park with my family. We <br> take a picnic lunch and barbeque hot <br> dogs. | Drawing |

## Activity

## Fractions

## Simplest Form

A fraction is written in its simplest form when both the numerator and denominator are whole numbers and the common factor between the two is 1 .

When you look at the fractions $3 / 4$ and $\frac{4}{6}$ the factors for 3 are 1 and 3 , the factors for 4 are 1,2 , and 4. The only factor the 3 and 4 share is one, so the fraction is written in its simplest form. The factors for 4 are 1,2 and 4 , the factors for 6 are $1,2,3,6$. These two numbers have two common factors, 1 and 2. Therefore, $\frac{4}{6}$ is not in its simplest form. Do several problems on the board with students before having them begin to play the game.
the group is thinking When possible, engage students in a "teach to learn" opportunity and have the student become the teacher

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation)
Vocabulary Notebooks can be made from $1 / 2$ 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

## Consult 4 Kids Lesson Plans

## Simplest Form

Directions:

1. Divide the students into pairs
2. Give each pair a deck of Simplest Form cards and a white board
3. Player 1 draws a card writes the factors and determines which factor(s) the numerator and the denominator have and then, if the fraction is not in its simplest form, then player should write the simplest form.
4. Player 2 continues with the same process.
5. Game is over when all of the fractions are in the simplest forms

## 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
$4^{\text {th- }}$ - $^{\text {th }}$ Grade Simplest Form

| $\frac{5}{10}$ | $\frac{6}{14}$ | $\frac{4}{20}$ | $\frac{20}{70}$ |
| :---: | :---: | :---: | :---: |
| $\frac{15}{25}$ | $\frac{12}{28}$ | $\frac{8}{32}$ | $\frac{18}{45}$ |
| $\frac{15}{18}$ | $\frac{24}{30}$ | $\frac{40}{80}$ | $\frac{36}{42}$ |
| $\frac{36}{45}$ | $\frac{28}{49}$ | $\frac{26}{39}$ | $\frac{48}{54}$ |
| $\frac{33}{44}$ | $\frac{40}{100}$ | $\frac{81}{90}$ | $\frac{64}{96}$ |


| $\frac{2}{4}$ | $\frac{3}{12}$ | $\frac{14}{21}$ | $\frac{4}{7}$ |
| :---: | :---: | :---: | :---: |
| $\frac{3}{8}$ | $\frac{5}{7}$ | $\frac{5}{9}$ | $\frac{9}{10}$ |
| $\frac{5}{6}$ | $\frac{51}{100}$ | $\frac{3}{10}$ | $\frac{6}{7}$ |
| $\frac{17}{51}$ | $\frac{6}{11}$ | $\frac{9}{31}$ | $\frac{5}{8}$ |
| $\frac{8}{17}$ | $\frac{14}{49}$ | $\frac{12}{48}$ | $\frac{15}{43}$ |

## Consult 4 Kids Lesson Plans

| Component | Math |
| :--- | :--- |
| Grade Level: | $4^{4 \mathrm{~h}} \& 5^{\text {th }}$ Grades |
| Lesson Title: | Simplest Form 2 |
| Focus: | Fractions |

## Materials:

| White boards | Vocabulary Notebooks |
| :--- | :--- |
| Crayolas | two, 12-sided dice for each pair |
| Socks | Product Hunt Work Sheet |

## Opening

## State the objective

Today we are going to practice using our math vocabulary and skills with fractions.

## Gain prior knowledge by asking students the following questions

Fractions are a key part of being prepared to understand algebra. What do you know about fractions? When would you use your knowledge of fractions in the real world? Why is it important that items be divided equally? When we are looking at fractions we can see them in two ways-an actual representation of the whole or an equivalent fraction that may be easier to understand. For example, if you were told that you had $\frac{17}{51}$ of the 51 pieces of candy, you would know that this is 17 of the 51 total pieces. But if you were asked if you would rather have $\frac{17}{51}$ or of a candy that was tied for your favorite or $\frac{2}{5}$ of your other favorite, that would be more difficult to decide-especially if there were a lot more pieces than 5 of your other favorite candy. If we look at it in its simplest form $\frac{17}{51}$ is the same as $\frac{1}{3}$ of the candy, so knowing this might make it easier for you to determine which candy you would most want. Share a time when having "easier" to think about information has been helpful or might be helpful.

| Content (the "Meat") |  |
| :---: | :---: |
| Problem of the Day | *Activity $\rightarrow$ Teachable Moment(s) throughout |
| If you had a triangle, trapezoid, pentagon, rectangle, parallelogram and you were given these clues, in what order with the shapes appear? | During the lesson check in with students repeatedly. |
| 1. The figure with the most sides is first. | Check in about what is |
| 2. The figure with just one pair of parallel sides is last. | happening and what they are |
| 3. The parallelogram is right after the triangle. | thinking. |
| 4. The figure with three sides is second. <br> 5. What is the order of the shapes? How do you know? | Take advantage of any teachable moments |
| Fact Practice | Stop the class and focus on a student's key learning or |
| Product Hunt | understanding. Ask openended questions to |
| 1. Divide students into pairs | determine what the rest of |

2. Each pair needs a Product Hunt sheet (attached to this lesson plans )
3. Player rolls two, 12 -sided dice.
4. Player multiplies the two numbers.
5. If the product is not yet covered, then player may cover the product.
6. Next player repeats steps 1-3.
7. Winner is determined by who has the most numbers covered.

## Math Vocabulary

## Word for Today: factors

Description: Factors is a term used to designate the numerals that you multiply together to get a product. In fractions you have two different sets of factors, the factors for the numerator and the factors for the denominator. Remember that on set of factors is always 1 x the number itself. When you want to determine if a fraction is written in its simplest form, you can do this by listing the factors for the numerator and the factors for the denominator and canceling out the ones that are the same (with the exception of the 1), and then you can multiply the factors together again to determine what the simplest form of the fraction is. (Demonstrate this on the board)
Create an entry of the term factors in the vocabulary notebook.
Vocabulary Notebook Sample:

| New Word $\quad$ picnic | My Description <br> Hot dogs, mustard, catsup, drinks, ball <br> games, family fun at the park |
| :--- | :--- |
| Personal Connection <br> I love to go to the park with my family. We <br> take a picnic lunch and barbeque hot <br> dogs. | Drawing |

## Activity

## Fractions

## Simplest Form

A fraction is written in its simplest form when both the numerator and denominator are whole numbers and the common factor between the two is 1 .

When you look at the fractions $3 / 4$ and $\frac{4}{6}$ the factors for 3 are 1 and 3 , the factors for 4 are 1,2 , and 4. The only factor the 3 and 4 share is one, so the fraction is written in its simplest form. The factors for 4 are 1,2 and 4 , the factors for 6 are $1,2,3,6$. These two numbers have two common factors, 1 and 2. Therefore, $\frac{4}{6}$ is not in its simplest form.
the group is thinking When possible, engage students in a "teach to learn" opportunity and have the student become the teacher

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation) Vocabulary Notebooks can be made from $1 / 2$ 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

## Consult 4 Kids Lesson Plans

## Simplest Form

Directions:

1. Divide the students into pairs
2. Give each pair a deck of Simplest Form cards and a white board
3. Player 1 draws a card writes the factors and determines which factor(s) the numerator and the denominator have and then, if the fraction is not in its simplest form, then player should write the simplest form.
4. Player 2 continues with the same process.
5. Game is over when all of the fractions are in the simplest forms

## 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 |

$4^{\text {th }}$-5 ${ }^{\text {th }}$ Grade Simplest Form

| $\frac{5}{10}$ | $\frac{6}{14}$ | $\frac{4}{20}$ | $\frac{20}{70}$ |
| :---: | :---: | :---: | :---: |
| $\frac{15}{25}$ | $\frac{12}{28}$ | $\frac{8}{32}$ | $\frac{18}{45}$ |
| $\frac{15}{18}$ | $\frac{24}{30}$ | $\frac{40}{80}$ | $\frac{36}{42}$ |
| $\frac{36}{45}$ | $\frac{28}{49}$ | $\frac{26}{39}$ | $\frac{48}{54}$ |
| $\frac{33}{44}$ | $\frac{40}{100}$ | $\frac{81}{90}$ | $\frac{64}{96}$ |


| $\frac{2}{4}$ | $\frac{3}{12}$ | $\frac{14}{21}$ | $\frac{4}{7}$ |
| :---: | :---: | :---: | :---: |
| $\frac{3}{8}$ | $\frac{5}{7}$ | $\frac{5}{9}$ | $\frac{9}{10}$ |
| $\frac{5}{6}$ | $\frac{51}{100}$ | $\frac{3}{10}$ | $\frac{6}{7}$ |
| $\frac{17}{51}$ | $\frac{6}{11}$ | $\frac{9}{31}$ | $\frac{5}{8}$ |
| $\frac{8}{17}$ | $\frac{14}{49}$ | $\frac{12}{48}$ | $\frac{15}{43}$ |


| Component | Math |
| :--- | :--- |
| Grade Level: | $4^{\text {th }} \& 5^{\text {th }}$ Grades |
| Lesson Title: | Improper and Mixed Fractions |
| Focus: | Fractions |

## Materials:

White boards
Crayolas
Socks

Vocabulary Notebooks
decks of cards
Activity at the end of the lesson plan

## Opening

## State the objective

Today we are going to practice using our math vocabulary and skills in working with fractions.

## Gain prior knowledge by asking students the following questions

Fractions are a key part of being prepared to understand algebra. What do you know about fractions? When would you use your knowledge of fractions in the real world? Why is it important that items be divided equally? When we are looking at fractions we can see them in two ways-an actual representation of the whole or an equivalent fraction that may be easier to understand. For example, if you were told that you had $\frac{17}{51}$ of the 51 pieces of candy, you would know that this is 17 of the 51 total pieces. But if you were asked if you would rather have $\frac{17}{51}$ or of a candy that was tied for your favorite or $\frac{2}{5}$ of your other favorite, that would be more difficult to decide-especially if there were a lot more pieces than 5 of your other favorite candy. If we look at it in its simplest form $\frac{17}{51}$ is the same as $\frac{1}{3}$ of the candy, so knowing this might make it easier for you to determine which candy you would most want. Share a time when having "easier" to think about information has been helpful or might be helpful.

| Content (the "Meat") |  |
| :---: | :---: |
| Problem of the Day <br> Look at the sequence of numbers below. What number comes next? Explain your answer. $39,44,42,47,45,50,48$, $\qquad$ | *Activity $\rightarrow$ Teachable <br> Moment(s) throughout <br> During the lesson check in with students repeatedly. <br> Check in about what is |
| Fact Practice Draw! <br> 1. Divide students into pairs and give each pair a deck of cards <br> 2. Remove the face cards and jokers from the deck of cards. <br> 3. Shuffle the deck. <br> 4. Decide who will go first. <br> 5. First player draws two cards. | happening and what they are thinking. <br> Take advantage of any teachable moments <br> Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of |

## Consult 4 Kids Lesson Plans

6. Student multiplies 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.

## Math Vocabulary

## Word for Today: improper fraction

Description: Improper fraction is a term we use to describe a fraction that has a numerator that is the same or larger than the denominator. In other words, you have as many or more parts that you need to make the whole thing. Let's think about pizza. Let's say you ordered 2 pizzas and both were cut into 10 equal slices. If someone ate $\frac{2}{10}$ or 2 of the 10 pieces of one pizza, and someone else ate $\frac{3}{10}$ or the second pizza, you would have 15 slices left over or $\frac{15}{10}$ 15 of the 10 pieces it would take to make one pizza. The fraction would be improper.
Have students complete his/her Vocabulary Notebook. Have students make up several scenarios in which this would be true.
Create a Notebook entry for the term: improper fraction
Vocabulary Notebook Sample:

| New Wordpicnic | My Description <br> Hot dogs, mustard, catsup, drinks, ball <br> games, family fun at the park |
| :--- | :--- |
| Personal Connection <br> I love to go to the park with my family. We <br> take a picnic lunch and barbeque hot <br> dogs. | Drawing |

## Activity

## Fractions

## Improper Fractions to Mixed Numbers

An improper fraction is a fraction that has a numerator larger or equal to the denominator. An example of an improper fraction is $\frac{8}{5}$. Since the numerator is 8 and the denominator is 5 , we know that there is one whole something and 3 extra pieces. To determine this you divide the denominator into the numerator (in this case it goes one time) and the remainder (the amount left over, in this case 3 ) is then written as a fraction: $\frac{3}{8}$, in other words 3 of the 8 parts you would need to have another whole. So the improper fraction $\frac{8}{5}$ can be written as the mixed number $1 \frac{3}{8}$
the group is thinking When possible, engage students in a "teach to learn" opportunity and have the student become the teacher

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation) Vocabulary Notebooks can be made from $1 / 2$ 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

## Consult 4 Kids Lesson Plans

Demonstrate several of these problems with the students in preparation for the game.

## Improper Fractions

Directions:

1. Divide the students into pairs
2. Give each pair a deck of Improper Fractions cards and a white board
3. Player 1 draws a card completes the math to change the improper fraction into a mixed number.
4. Player 2 continues with the same process.
5. Game is over when all of the improper fractions are in the mixed number form.

## 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
$4^{\text {th }}-5^{\text {th }}$ Grade Improper Fractions

| $\frac{3}{2}$ | $\frac{5}{3}$ | $\frac{7}{4}$ | $\frac{9}{7}$ |
| :---: | :---: | :---: | :---: |
| $\frac{9}{2}$ | $\frac{15}{5}$ | $\frac{14}{5}$ | $\frac{16}{5}$ |
| $\frac{25}{8}$ | $\frac{35}{6}$ | $\frac{57}{10}$ | $\frac{91}{15}$ |
| $\frac{8}{6}$ | $\frac{12}{8}$ | $\frac{12}{3}$ | $\frac{21}{9}$ |
| $\frac{30}{12}$ | $\frac{13}{7}$ | $\frac{45}{36}$ | $\frac{60}{48}$ |


| $\frac{4}{4}$ | $\frac{15}{12}$ | $\frac{14}{6}$ | $\frac{23}{7}$ |
| :---: | :---: | :---: | :---: |
| $\frac{100}{24}$ | $\frac{3}{2}$ | $\frac{8}{3}$ | $\frac{17}{5}$ |
| $\frac{9}{2}$ | $\frac{21}{8}$ | $\frac{29}{6}$ | $\frac{31}{3}$ |
| $\frac{59}{7}$ | $\frac{122}{3}$ | $\frac{73}{6}$ | $\frac{13}{8}$ |
| $\frac{38}{17}$ | $\frac{78}{49}$ | $\frac{48}{48}$ | $\frac{12}{4}$ |


| Component: | Math |
| :--- | :--- |
| Grade Level: | $4^{\text {th }} \& 5^{\text {th }}$ Grades |
| Lesson Title: | Improper to Mixed Fractions |
| Focus: | Fractions |

## Materials:

| White boards | Vocabulary Notebooks |
| :--- | :---: |
| Crayolas | Double 9 Dominoes |
| Socks | Activity at the end of the lesson plan |

## Opening

## State the objective

Today we are going to practice using our math vocabulary and skills with fractions.

## Gain prior knowledge by asking students the following questions

Fractions are a key part of being prepared to understand algebra. What do you know about fractions? When would you use your knowledge of fractions in the real world? Why is it important that items be divided equally? When we are looking at fractions we can see them in two ways-an actual representation of the whole or an equivalent fraction that may be easier to understand. For example, if you were told that you had $\frac{17}{51}$ of the 51 pieces of candy, you would know that this is 17 of the 51 total pieces. But if you were asked if you would rather have $\frac{17}{51}$ or of a candy that was tied for your favorite or $\frac{2}{5}$ of your other favorite, that would be more difficult to decide-especially if there were a lot more pieces than 5 of your other favorite candy. If we look at it in its simplest form $\frac{17}{51}$ is the same as $\frac{1}{3}$ of the candy, so knowing this might make it easier for you to determine which candy you would most want. Share a time when having "easier" to think about information has been helpful or might be helpful.

## Content (the "Meat")

## Problem of the Day

Complete the number line below. What number is $1 / 2$ way between 2.5 and 2.6 ?


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.

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

During the lesson check in with students repeatedly.
Check in about what is happening and what they are thinking.
Take advantage of any teachable moments
Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking

## Consult 4 Kids Lesson Plans

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


Multiplication: $2 \times 3=6$

## Math Vocabulary

## Word for Today: mixed number

Description: Mixed number is a term we use to describe a whole number and a fraction that is used to describe how much of something you have. For example, if you have $1 \frac{1}{2}$ candy bars $11 / 2$ is a mixed number, you have 1 whole candy bar and $1 / 2$ of another candy bar. You have more than one, but less than 2. You could also have $\$ 10$ and $3 / 4$ of a dollar (this would be $75 \phi$, so you have 3 of the 4 quarter you would need to have a total of $\$ 11$. Have students share several things that they could have that would represented in a mixed number.

Create an entry for the term mixed number in your Vocabulary Notebook.
Vocabulary Notebook Sample:

| New Word $\quad$ picnic | My Description <br> Hot dogs, mustard, catsup, drinks, ball <br> games, family fun at the park |
| :--- | :--- |
| Personal Connection <br> I love to go to the park with my family. We <br> take a picnic lunch and barbeque hot <br> dogs. | Drawing |

## Activity

## Fractions

## Improper Fractions to Mixed Numbers

An improper fraction is a fraction that has a numerator larger or equal to the denominator. An example of an improper fraction is $\frac{8}{5}$. Since the numerator is 8 and the denominator is 5 , we know that there is one whole something and 3 extra pieces. To determine this you divide the denominator into the numerator (in this case it goes one time) and the remainder (the amount

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation) Vocabulary Notebooks can be made from $1 / 2$ 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

## Consult 4 Kids Lesson Plans

left over, in this case 3 ) is then written as a fraction: $\frac{3}{8}$, in other words 3 of the 8 parts you would need to have another whole. So the improper fraction $\frac{8}{5}$ can be written as the mixed number $1 \frac{3}{8}$
Demonstrate several of these problems with the students in preparation for the game.

## Improper Fractions

## Directions:

1. Divide the students into pairs
2. Give each pair a deck of Improper Fractions cards and a white board
3. Player 1 draws a card completes the math to change the improper fraction into a mixed number.
4. Player 2 continues with the same process.
5. Game is over when all of the improper fractions are in the mixed number form.

## 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

|  | $\bullet$ |  | $\bullet$ | $\bullet$ |
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Consult 4 Kids Lesson Plans

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| $\bullet \bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |  |
| $\bullet$ | $\bullet$ | $\bullet$ |  |  |  |




$4^{\text {th }}-5^{\text {th }}$ Grade Improper Fractions

| $\frac{3}{2}$ | $\frac{5}{3}$ | $\frac{7}{4}$ | $\frac{9}{7}$ |
| :---: | :---: | :---: | :---: |
| $\frac{9}{2}$ | $\frac{15}{5}$ | $\frac{14}{5}$ | $\frac{16}{5}$ |
| $\frac{25}{8}$ | $\frac{35}{6}$ | $\frac{57}{10}$ | $\frac{91}{15}$ |
| $\frac{8}{6}$ | $\frac{12}{8}$ | $\frac{12}{3}$ | $\frac{21}{9}$ |
| $\frac{30}{12}$ | $\frac{13}{7}$ | $\frac{45}{36}$ | $\frac{60}{48}$ |


| $\frac{4}{4}$ | $\frac{15}{12}$ | $\frac{14}{6}$ | $\frac{23}{7}$ |
| :---: | :---: | :---: | :---: |
| $\frac{100}{24}$ | $\frac{3}{2}$ | $\frac{8}{3}$ | $\frac{17}{5}$ |
| $\frac{9}{2}$ | $\frac{21}{8}$ | $\frac{29}{6}$ | $\frac{31}{3}$ |
| $\frac{59}{7}$ | $\frac{122}{3}$ | $\frac{73}{6}$ | $\frac{13}{8}$ |
| $\frac{38}{17}$ | $\frac{78}{49}$ | $\frac{48}{48}$ | $\frac{12}{4}$ |

## Consult 4 Kids Lesson Plans

| Component | Math |
| :--- | :--- |
| Grade Level: | $4^{4 \mathrm{~h}} \& 5^{\text {th }}$ Grades |
| Lesson Title: | Movin' to Improper |
| Focus: | Fractions |

## Materials:

| White boards | Vocabulary Notebooks | Activity at end of the lesson plan |
| :--- | :--- | :--- |
| Crayolas | 6-sided dice; 12-sided dice |  |
| Socks | decks of cards |  |

## Opening

## State the objective

Today we are going to practice using our math vocabulary and skills in working with fractions.

## Gain prior knowledge by asking students the following questions

Fractions are a key part of being prepared to understand algebra. What do you know about fractions? When would you use your knowledge of fractions in the real world? Why is it important that items be divided equally? When we are looking at fractions we can see them in two ways-an actual representation of the whole or an equivalent fraction that may be easier to understand. For example, if you were told that you had $\frac{17}{51}$ of the 51 pieces of candy, you would know that this is 17 of the 51 total pieces. But if you were asked if you would rather have $\frac{17}{51}$ or of a candy that was tied for your favorite or $\frac{2}{5}$ of your other favorite, that would be more difficult to decide-especially if there were a lot more pieces than 5 of your other favorite candy. If we look at it in its simplest form $\frac{17}{51}$ is the same as $\frac{1}{3}$ of the candy, so knowing this might make it easier for you to determine which candy you would most want. Share a time when having "easier" to think about information has been helpful or might be helpful. Talk about times when you have more than one whole thing.

| Content (the "Meat") |  |
| :---: | :---: |
| Problem of the Day <br> Jorge, Maria, Larry, and Martha finished the hot dog eating contest with the following times: $6.85,6.37,6.73$, and 6.53 seconds. Jorge finished last. Maria finished exactly 0.2 seconds faster than Larry. Who came in first? How do you know? | *Activity $\rightarrow$ Teachable Moment(s) throughout During the lesson check in with students repeatedly. <br> Check in about what is happening and what they are thinking. |
| Fact Practice <br> Fact Family <br> A Fact Family is 3 numbers which have a relationship in multiplication and division. For example, the number 9,4 , and 36 have a particular relationship in math. This family has four members: $9 \times 4=36$ <br> $4 \times 9=36$ <br> $36 \div 4=9$ | Take advantage of any teachable moments Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking |

## Consult 4 Kids Lesson Plans

$36 \div 9=4$
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

## Math Vocabulary

## Word for Today: multiplication

Description: Multiplication is the term that we use to describe repeated addition. It requires that you have a grid that has equal columns of items-in other words that each row has the same number of items in it. Then you simply multiply the number of rows times the number of columns and you know how many individual items you have. It makes addition easier when you get into larger numbers. Multiplication is an operation that we utilize with fractions, especially if we are looking at factors to know if the fraction is in its simplest form, but also when we change a mixed number into a fraction. Practice several on the board.
Create and entry in your Vocabulary Notebook for the term "multiplication".
Vocabulary Notebook Sample:

| New Word $\quad$ picnic | My Description <br> Hot dogs, mustard, catsup, drinks, ball <br> games, family fun at the park |
| :--- | :--- |
| Personal Connection <br> I love to go to the park with my family. We <br> take a picnic lunch and barbeque hot <br> dogs. | Drawing |

## Activity

## Fractions

## Mixed Numbers to Improper Fractions

Just as it is important for the student to understand how to change an improper fraction to a mixed number, it is important that a student know how to change a mixed number to an improper fraction. To change a mixed number to an improper fraction multiply the whole number times the denominator and find the product. Then to that product, add the numerator. You now have the improper fraction. The numerator is the total you have just found and then put the denominator that you have had as the denominator, it does not change. So, in the mixed number $3 \frac{1}{3}$ you would first say 3 (the whole number) $\times 3$ (the denominator $=9+1$ (the numerator) for a total of 10 , over the denominator of 3 so the improper fraction looks this way: $\frac{10}{3}$.
Demonstrate several of these problems with students, helping them to understand how to play the game.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation) Vocabulary Notebooks can be made from $1 / 2$ 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

## Consult 4 Kids Lesson Plans

## Movin' to Improper

## Directions:

1. Divide the students into pairs
2. Give each pair a deck of Movin' to Improper cards and a white board
3. Player 1 draws a card completes the math to change the mixed number into an improper fraction.
4. Player 2 continues with the same process.
5. Game is over when all of the improper fractions are in the mixed number form.

|  | 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
$4^{\text {th }}$ - th $^{\text {h }}$ Grade Movin' to Improper

| $1 \frac{1}{2}$ | $1 \frac{2}{3}$ | $1 \frac{3}{4}$ | $1 \frac{2}{7}$ |
| :---: | :---: | :---: | :---: |
| $4 \frac{1}{2}$ | $3 \frac{2}{3}$ | $2 \frac{4}{5}$ | $3 \frac{1}{5}$ |
| $3 \frac{1}{8}$ | $5 \frac{5}{6}$ | $5 \frac{7}{20}$ | $6 \frac{1}{15}$ |
| $1 \frac{5}{6}$ | $1 \frac{4}{5}$ | $3 \frac{7}{8}$ | $2 \frac{4}{9}$ |
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| $5 \frac{3}{7}$ | $3 \frac{3}{4}$ | $2 \frac{2}{6}$ | $3 \frac{2}{3}$ |
| :---: | :---: | :---: | :---: |
| $4 \frac{1}{24}$ | $1 \frac{1}{2}$ | $2 \frac{2}{3}$ | $3 \frac{2}{5}$ |
| $4 \frac{1}{2}$ | $2 \frac{7}{8}$ | $4 \frac{5}{6}$ | $10 \frac{1}{3}$ |
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## Consult 4 Kids Lesson Plans

| Component | Math |
| :--- | :--- |
| Grade Level: | $4^{\text {th }} \& 5^{\text {th }}$ Grades |
| Lesson Title: | Movin' to Improper 2 |
| Focus: | Fractions |

## Materials:

White boards
Crayolas
Socks

Vocabulary Notebooks
Decks of cards
Activity at the end of the lesson plan

## Opening

## State the objective

Today we are going to practice using our math vocabulary and skills in working with fractions.

## Gain prior knowledge by asking students the following questions

We have spent a great deal of time this past few days talking about fractions. Share with the group your understanding of the following:

> improper fractions
mixed number
numerator
denominator
equivalent fractions
simplest form

## Content (the "Meat")

## Problem of the Day

Millie collected 3,478 baseball cards. Mark collected 2,976 baseball cards. How many cards do they have all together? How do you know?

## Fact Practice <br> 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 then pass off to the next person.
3. Player may mark the same number.
*Activity $\rightarrow$ Teachable
Moment(s) throughout
During the lesson check in with students repeatedly.
Check in about what is happening and what they are thinking.
Take advantage of any teachable moments Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking When possible, engage

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|  |  | students in a "teach to learn" opportunity and have the student become the teacher |
| :---: | :---: | :---: |
| Word for Math Vocabulary |  | It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word. <br> When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation) Vocabulary Notebooks can be made from $1 / 2$ of a composition book |
|  |  |  |
| Description: Te term like denominators ref same. When we think about parts of a whole to apple and oranges to oranges, not apples that in order to compare fractions, they must | s to two or more denominators that are the or a fraction, it is important to compare apples oranges. This is a metaphorical way of saying e written with the same or like denominators. |  |
| To find like denominators we must find equival expressed with a different denominator. If I in the other, I need to think about $\frac{2}{4}$ of a dolla dollar, or one dollar and a quarter. Share oth Create an entry in your Vocabulary Noteboo Vocabulary Notebook Sample: | ent fractions to the fraction we have, but ve $1 / 2$ of a dollar in one pocket and $\frac{3}{4}$ of a dollar and $\frac{3}{4}$ of a dollar to know that I have $\frac{5}{4}$ of a r examples with students. for the term "like denominators". |  |
| New Word <br> picnic | My Description <br> Hot dogs, mustard, catsup, drinks, ball games, family fun at the park |  |
| Personal Connection | Drawing |  |
| I love to go to the park with my family. We take a picnic lunch and barbeque hot dogs. |  |  |

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## Activity

Fractions

## Mixed Numbers to Improper Fractions

Just as it is important for the student to understand how to change an improper fraction to a mixed number, it is important that a student know how to change a mixed number to an improper fraction. To change an mixed number to an improper fraction multiply the whole number times the denominator and find the product. Then to that product, add the numerator. You now have the improper fraction. The numerator is the total you have just found and then put the denominator that you have had as the denominator, it does not change. So, in the mixed number $3 \frac{1}{3}$ you would first say 3 (the whole number) $\times 3$ (the denominator $=9+1$ (the numerator) for a total of 10 , over the denominator of 3 so the improper fraction looks this way: $\frac{10}{3}$.
Demonstrate several of these problems with students, helping them to understand how to play the game.

## Movin' to Improper

## Directions:

1. Divide the students into pairs
2. Give each pair a deck of Movin' to Improper cards and a white board
3. Player 1 draws a card completes the math to change the mixed number into an improper fraction.
4. Player 2 continues with the same process.
5. Game is over when all of the improper fractions are in the mixed number form.

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

## 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.

## Consult 4 Kids Lesson Plans

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

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 |

$4^{\text {th }}$ - $5^{\text {th }}$ Grade Movin' to Improper

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| Component | Math |
| :--- | :--- |
| Grade Level: | $4^{\text {th }} \& 5^{\text {th }}$ Grade |
| Lesson Title: | Student Activity Choice |
| Focus: | Review |

## Materials:

Game Boards for games below

## Opening <br> State the objective

Today we are going to have fun playing games that we learned this week.

| Content (the "Meat") |
| :--- |
| Activity |
| Today is review day. Students will be able to select from the Fraction Games you played for the last 10 days. Ask students |
| to select from: |
|  |
| Draw It |
| Compare |
| Simplest Form |
| Improper Fractions |
| Movin' to Improper |


|  | Closing |
| :--- | :--- |
| Say: | Review |

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


## 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

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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

