

Guide to Selecting Games by Grade Level

Instructions follow in alphabetical order

Kindergarten

Quizmo Tell Time
Mancala
Countdown
Sum Swamp
Readiness Math Games
How Many?
Which One?
Adding it Up
Shape & Color

1st Grade

Sum Swamp
Quizmo - Addition
Mancala
Countdown - addition
Quizmo – Tell Time
Quizmo - Money
Auntie Pasta
Dino Math Tracks
Yahtzee

2nd Grade

Sum Swamp
Quizmo – Addition/Subtraction
Mad Math-Add/Sub
Mancala
Quizmo – Money
Countdown – Add/Sub
Auntie Pasta
Dino Math Tracks
Loose Change
Travel Math

3rd Grade

Allowance
Loose Change
Quizmo – Multiplication/Division
Math Math – Mult/Div or Add/Sub
Quizmo - Money
Countdown – use add/sub/mult/div
S'math
Pie in the Sky
Totally Tut – Level 1
Math Around the Home
Travel Math

4th Grade

Quizmo – Fractions/Decimals
Loose Change
S'math
Quizmo – Multiply/Divide
Mad Math – Mult/Div or Add/Sub
Quizmo- Money
GeoShapes
Presto-ChangeO
Allowance
Totally Tut- Level 2
Math Around the Home
Travel Math

5th Grade

Loose Change
Equate
PrimePak
Mad Math
S'Math
GeoShapes
Presto ChangeO
Allowance
Totally Tut- Level 2
Math Around the Home
Travel Math
Fraction 500

Math Games Playing Tips

Your job as a math games volunteer is to teach the kids to play a game that involves some problem solving or math skill. Sometimes, you may need to teach a little sportsmanship to keep things friendly. Remember, the teacher teaches the math skills and you have fun playing the games with the kids.

Ask your coordinator or room parent scheduler if you or the teacher will be selecting the game. There is an outcome/skill chart in the game cabinet to assist with selecting a game. Please select games for your grade level or younger. The games will then be age appropriate and there will always be new games the students can look forward to. **Reserve the game on the calendar posted on the math games cabinet in the science room. Indicate in the space of the scheduled game day the following information: name of the game, teacher name or code, and time of play. Double check for any conflicts – if so, choose a different game.

If the science room needs to be reserved, arrange this with the office. If the science room is unavailable or the teacher chooses to play in the classroom, a cart is available to transport games to the classroom. Please make sure all games pieces are placed back into the games and the games are returned to the cabinet in the science room.

Plan to arrive 10 minutes early if possible to review the instructions and set up boards and game pieces.

Determine who and how game instructions will be given to the kids. If there is one volunteer per table, each volunteer may give instructions. If there are fewer volunteers, two parents (or one parent and teacher) can play a few turns while explaining the rules, with the kids sitting around the table. There is a three ring binder in the math games cabinet with condensed game instructions. Please return the binder to the cabinet so it is available for other volunteers and teachers.

The teacher may let kids choose their own partners, or the teacher may assign partners/groups.

Depending on the time the teacher has allotted for math games, you can play more than one game. You can play the same game more than once or select a different game. The students spend their first session learning to play the game and in another round of the game they can work more on strategy, planning, and reinforcing their skills.

For clean up, please try to keep all the correct pieces and parts with the correct game. Take special care if different games are being played during a session. If we do this after we play each time, there should be very few missing pieces. Missing games pieces create a problem for future classes.

Please use the Red Notebook in the cabinet for any comments – positive or negative – about the games. Also please use this notebook to report any missing pieces.

ADDING IT UP (Readiness Math Game)

Outcome: Simple addition

Contents: Math gameboard – side 1

Adding It Up Cards

Markers

How to set up:

- 1) Use Side 1 of Math gameboard
- 2) Shuffle the Adding It Up game cards. Place them face up (problem showing) in the pile marked "Cards" on the gameboard.
- 3) Each player chooses a marker; determine who goes first

How to play:

- 1) First player takes top card and solves problem. Player checks back of card for the correct answer.
- 2) If correct, player moves marker to the first number on the board that matches the answer. If answer is incorrect, player does not move. Return card to the bottom of the deck.

More than one player can land on the same square.

Object of the game:

Reach the last number 10 or answer a card with a number other than what is left on the board path is the winner. Ex: If the player is on the last 6 and player solves a problem with an answer of 2 – player would not move backward; this would be the final card for that player.

ALLOWANCE

Help students develop an interest and insight into earning and saving money and making purchases. Game cards indicate the task to be performed, such as mowing the lawn or cleaning the garage. Choices must be made as in real life, whether to spend money on ice cream or put it into savings.

Outcome: Money
Contents: game board
25 take-a-chance cards
6 markers
coin chips and currency
Duration: 15 – 20 minutes
Players: 2-6 players
Grades: 3-8

How to Play:

1. Place take-a-chance cards face down on the game board.
2. Select one player to act as banker. Banker gives each player \$10.00.
3. Place markers on start.
4. Spin dial to determine order of play. Highest number goes first.
5. As players spin, move clockwise the number of spaces and follow instructions.. If the dial points to take-a-chance, select a take-a-chance card and follow the instructions.
6. The game can end in any way agreed upon the players. Some suggested ways are:
 - a. when one player has no money remaining
 - b. when one player has \$20.00 or more
 - c. when one player has moved completely around the board.

Recommendations:

- * Play the game where all players move around the game board one time. All players should count their money and the player with the most money wins the game. At the end of each game, rotate which player is the banker. This option allows more than one game to be played during the time frame and more players get the chance to be banker.

AUNTIE PASTA'S FRACTION GAME

Be the first player to fill all four of your pizza pans with the correct fraction pieces.

Outcome: Facts & Number Skills
Contents: Game board
16 fraction pizzas
4 delivery box pieces
1 spinner

SET UP:

- 1) Place the fraction pieces with the pizza side up in the center of the board. Place the whole pizzas in one pile, the halves in another, etc.
- 2) The number of fraction pieces needed depends on the number of players.

2 players	3 players	4 players
1 whole pizza	2 whole pizzas	3 whole pizzas
3 halves	5 halves	7 halves
5 thirds	8 thirds	11 thirds
7 quarters	11 quarters	15 quarters
2 delivery boxes	3 delivery boxes	4 delivery boxes

HOW TO PLAY:

- 1) Spin the spinner and whoever the arrow points to can go first.
- 2) Players take turns spinning the spinner and players try to collect pizza slices to fill all their four pizza pans. A player can "box up" a completed pizza by placing a delivery box on top of it. Other players cannot take slices from a "boxed" pizza. The first player to completely fill all four pizza pans wins.
- 3) After each spin, the player does the following:

Pizza slice:

If a player spins one of these, he/she must choose a matching piece from the center and say the fraction out loud. The player can check the back of the piece. If correct, the player places it on his/her pizza pan. If there are no more matching pieces in the center of the game board, the player can take one from another player's pan. If the player does not need that piece, he/she can wait until their next turn.

Choose One:

If a player spins this, he/she must choose any pizza slice or a delivery box from the center. If there are none left in the center, he/she can take one from another player. Players may not choose a piece from a pizza that has a delivery box covering it.

Share a Slice:

If a player spins this, he/she must give one pizza piece to any other player he/she chooses. The player who receives the piece must be able to place it on his/her pan.

Take a Delivery Box:

If a player spins this, he/she may take a delivery box from the center or from another player if there are no more in the center. Delivery boxes should be placed on completed pizzas to protect slices from being taken by another player. If a player does not have a completed pizza, the delivery box can be saved until he/she has a completed one. Delivery boxes can be placed on completed pizzas at any time not just on a turn.

Lose a Delivery Box:

If a player spins this, he/she must return a delivery box if he/she has one. The delivery box is returned to the center of the game board.

COUNTDOWN

The first person to flip over all 10 keys on his/her side wins the game.

Outcome: Facts
Contents: game board and dice
Duration: 15 – 20 minutes
Inventory: 14 games
Players: 2 per game board
Grades: 1 and up

How to Set Up:

- 1) Decide what facts the players should use to play the game. Select from addition, subtraction, multiplication or division or let players use all facts.

How to Play:

- 1) Players press down all 10 keys on their side of the countdown unit.
- 2) Each player takes turns and rolls dice in the center of the game unit. The two numbers rolled must be converted into one number by using addition, subtraction, multiplication or division.
- 3) Flip that number key up.
- 4) The first person to flip all ten keys up on their side wins.
- 5) If a double six is rolled at any time, the player must flip all their keys back down and start over.
- 6) If a player rolls an 11, the player may count it as a 1 (using subtraction) or require their opponent to flip all his/her keys down and start over.

Recommendations:

- * For lower grades, use only the double six option that requires a player to flip all their keys down and start over.
- * For higher grades, such as 4-5, add the option of rolling an 11 and requiring their opponent to flip his/her keys down to start over. With higher grades, better sportsmanship will be present. By waiting to add this option, it adds something new and interesting to the game. Otherwise, if the game is played each year, the kids will get bored quickly.

DINO MATH TRACKS

Reinforce counting, place value, addition and subtraction skills. The object of the game is to get all four dinosaurs under the Rainbow Bridge.

Outcome: Facts & Number Skills
Contents: Game board
Dinosaur playing pieces
Playing cards
Number cube
Duration: 15 – 20 minutes
Players: 2-4 players
Grade: 1 – 4

Set up:

- 1) Shuffle the Dino Action Number Cards and place the pack face down on the left-hand rock in the center of the board.
- 2) Each player chooses one herd of dinosaurs and places all 4 pieces in the appropriate corner.
- 3) Each player rolls the green Number cube; the player with the largest number starts the game.

How to Play:

- 1) For each turn, the player does the following:
 - * Roll all 4 white number cubes and arrange them into a number in his/her colored place value boxes. Move the appropriate spaces.
 - * Draw a Dino Action Number Card, read it and move the dinosaur(s) the correct number of spaces forward or backward. Place the card face-up in a discard pile on the right-hand rock. (When players run out of cards, shuffle the pack and place face down again.)
- 2) If a player's dinosaur lands on the same footprint as another player, the two players have a "Showdown". Each tosses the green Number Cube; the player with the largest number wins and moves his/her dinosaur forward that many spaces.

EQUATE - THE THINKING GAME

Improve thinking skills, develop number sense and build a foundation for success in algebra. Players form horizontal and vertical equations by placing tiles on the board. Includes both whole numbers and fractions with four levels of play.

Outcome: Pre-algebra
Contents: game board
tile set

Set Up:

- 1) Separate equal symbols from other tiles. Turn number and operation tiles face down or keep in nontransparent bag and shuffle.
- 2) Determine how plays first.
- 3) Each player draws 9 number or operation tiles and hides all tiles from view behind his fence.
- 4) Decide on one player to be the scorekeeper.

To Play:

- 1) First equation is placed in the middle of the board. Then, players must connect either horizontally or vertically to an existing equation.
- 2) Player may use their turn to trade in as many of his/her tiles with the draw pile or bag.
- 3) Player may use their turn to place an equation which does not connect to an existing equation, however, he/she will score no points for it. This may be useful to go out at the end of the game or set up future equations from the player's hand.
- 4) Player may also simply pass. This may be necessary at the end of the game if all tiles from the draw pile/bag are gone.
- 5) Game ends when there are no more tiles in the draw pile/bag and one player uses the last of his/her tiles. The player that goes out adds to his/her score the total of all the individual scores that the other players are left holding. Also each player left with tiles must subtract from his/her score the total of the tile scores he/she is left holding.
- 6) After there are not more tiles in the draw pile/bag, it may be impossible for any player to go out. In this case, the game ends when each player has passed once around successively. Each player then subtracts from his/her score the total of the individual scores he/she is left holding.

For Beginners

Beginners start by forming only horizontal equations without connecting them. For this level, take out the fraction and division tiles and all/some of the multiplication tiles. Separate the draw pile into two piles; one containing numbers and the other operations. This ensures that players will have a balanced hand.

FRACTION 500

The first player to complete 2 laps wins the game. Players must land on or cross over the finish line to finish. If players cross the finish line in the same turn, then the player traveling the furthest beyond the finish lane wins.

Outcome:	Facts & Number Skills
Contents:	Game Board 108 mile cards (10, 20, 30 and 40 mile cards) 4 tokens 3 minute timer
Duration:	30 minutes
Players:	2 – 4 players
Grades:	Grades 4 – 5

SET UP:

Shuffle the 10 mile cards. Place them on the space marked "10" on the game board. Do the same for the 20, 30 and 40 mile cards. The 10 mile cards are the easiest and 40 mile card hardest.

HOW TO PLAY:

- 1) Each player should take one 10, 20, 30 or 40 mile card. Players draw cards at the same time and they should not look at the cards.
- 2) The 3 minute timer is turned over. Players have 3 minutes to turn over their cards and work their problems.
- 3) At the end of 3 minutes (or when all players have finished working their problems), players check their answers using the answer key.
- 4) Players with the right answers move ahead the number of miles on their card.
10 mile card = 2 spaces
20 mile card = 4 spaces
30 mile card = 6 spaces
40 mile card = 8 spaces
Players with wrong answers do not move.
- 5) Players can make lane changes diagonally. A player may not move into a space already taken by another player.

GEOSHAPES

Be the first player to complete one geometric figure and the circle in a chosen quadrant. Measurements in both inches and centimeters.

Outcome: Geometry
Contents: Game board
Geometric shapes and figures
Playing cards

Setup:

- 1) Select one player to be the dealer. Shuffle the cards and deal 4 cards to each player.
- 2) All players place cards face-up and dealer exchanges cards for Geoshapes. These cards then go into a discard area by each player.
- 3) The player on the left of the deal plays first.

How to Play:

- 1) For each turn, the player does the following:
 - A) Obtain Geoshapes in 1 of 3 ways:
 - * Draw one card and place it face-up on the discard pile. The dealer gives the player the Geoshape pictured on the card
 - OR
 - * Pick up an entire stack of discarded Geoshapes, either from his/her own Geoshape discard area or from another player.
 - OR
 - * Offer to trade Geoshapes, either in their hand or on the board, with another player. No more than 2 Geoshapes may be offered in exchange for up to 3 Geoshapes from another player. The player's opponent may refuse a trade.
 - B) The player may place as many Geoshapes on one of the two large figures in his/her quadrant, but not on both. A player can also place shapes on the circle during each play, The player is not required to place any shapes during his/her turn.
 - C) At the end of the turn, a player must discard one Geoshape (except on a trade).
- 2) The red Wild Geoshape square can be placed on the board, substituting for any Geoshape.
- 3) A Geoshape cannot be played on a figure unless it will fit as a part of that completed figure.
- 4) A player may choose to switch the figure in the quadrant that he/she is attempting to complete during any play. In this event, all Geoshapes must be removed from the first figure before any can be played on the second figure.
- 5) At the end of the game, the winner must have at least one Geoshape in his/her hand.

How Many? (Readiness Math Game)

Outcome: Number recognition & quantities

Contents: Math gameboard – side 1

How Many? Spinner

Markers

How to set up:

- 1) Use side 1 of the Math gameboard
- 2) Each player choose a marker; determine who goes first

How to play:

- 1) First player spins the spinner. Player counts the number of dots in the section where the spinner stops.
- 2) Player says the number and moves that number of spaces on the board.
- 3) More than one marker can land on the same space.

Object of the Game:

The game ends when each player reaches the last number 10 or spins a number not left on the board path.

LOOSE CHANGE

Outcome: Money
Contents: 108 cards
Duration: 15 – 20 minutes
Inventory: 6 games
Players: 2 – 6 players
Grade: 1 and up

How to Play:

1. Each player is dealt four cards. The remainder cards are placed in the center of the table. Turn over the top card of the deck to start the game.
2. As you go around the table, each player should put down one of their cards with the goal of adding the cards to \$1.00. If a player puts down a card that results in the cards adding to \$1.00, that player gets to take the stack of cards and place them face up in front of them.
3. As each player puts down a card, it is important to add up the cards. This helps reinforce the skill of adding money together. All players can help add the amounts together so that a player is not singled out for not having that skill yet.
4. If the cards go over \$1.00, that player "busts" and takes the stack. This stack is placed face down in front of the player.
5. The game can be played based on a time limit. At the end of the game, stacks with face up equal one point and stacks with face down subtract a point. The player with the most points wins.
6. Special cards to play are "Save" which holds that amount already on the table. "Lucky Find" cards are multiple coins on the same card.

Recommendations:

- * Instead of placing "busted" stacks in front of each player, set up a discard pile of all "busted" stacks. At the end of the game, each player just counts the stacks in front of them to determine who wins. The player with the most stacks wins.

MADMATH

A game where learning the multiplication table is made easy, fun and captivating. To play: roll the dice and multiply the results to position your pawns. You win by placing three pawns in a row, either horizontally, vertically or diagonally. Beginning, intermediate and expert levels available.

Outcome: Facts & Skills
Contents: Two 10-sided dice
10" x 10" game board
16 pawns
Duration: 15-20 minutes
Inventory:
Players: 2 – 4 players
Grades: 2 and up

How to Play:

1. Object of the game is to place 3 pawns in a row on three adjoining squares, horizontally, vertically or diagonally. One game board side is addition and the other side is multiplication.
2. Each player chooses 4 colored pawns.
3. Determine who will start.
4. Throw both dice to place your first pawn. Use multiplication or addition to find the sum on the board.
5. Each player may throw one or both dice to position their pawn.
6. If an intersection is already taken, you lose your turn. If you roll a 0, you lose your turn.
7. The player who positions three pawns in a row, either horizontally, diagonally or vertically, wins.

Recommendations:

- * The first time this game is played, it may require more than 2 parent volunteers. The lower grade levels require additional guidance when playing the game. However, the upper grade levels can play the game with minimal supervision.

MANCALA

A game of strategy. Two players compete against each other trying to accumulate as many stones as possible before one of the players clears his side of all its stones.

Outcome: Strategy & Logic
Contents: One wooden mancala board
48 stones
Inventory: 15 games
Players 2
Grade: 1 and up

How to Set Up:

- 1) The board is placed between each player. Each player takes 24 playing pieces.
- 2) Each player puts four pieces in each of the six bins on their side of the board.
- 3) The two larger bins at the end of each board are called kalahas. These are left empty at the start of the game.
- 4) The object of the game is to be the player with the most pieces in your kalaha.

How to Play:

- 1) If you are the first player to go, scoop up all the pieces from any bin on your side of the board. Now, moving to the right drop one piece into each bin that you come to.
- 2) If you come to your kalaha (the one on the right), drop a playing piece into this bin. If you have more pieces left after you drop one in the kalaha, continue to put your remaining pieces into the bins on your opponent's side.
- 3) If you come to your opponent's kalaha, skip over it.
- 4) If your last piece lands in your kalaha, you get to go again. Otherwise, it is your opponent's turn.
- 5) Capturing – If the last piece you drop goes into an empty bin on your side of the board, you get to capture any of your opponent's playing pieces in the bin directly across from yours. When you capture these pieces, put them into your kalaha. After you capture, it is your opponent's turn.
- 6) The game ends when all six bins on a player's side are empty. The player with pieces still in their bins can put them into their kalaha. The winner is the player with the most playing pieces in their kalaha.

Math Around the Home

Contents: Gameboard
6 markers
bonus cards
Instructions, answer sheet, scoresheet master

Level A questions (upper primary & lower intermediate levels)
Level B questions (upper intermediate & lower junior high)

To set up:

- 1) Shuffle bonus cards and place face down on game board. Decide how many turns will be played – up to 10 turns are on the scorecard.
- 2) Play with appropriate level question cards. Determine who will play first.

To play:

- 1) Player spins and moves marker to space indicated on dial. If question is answered correctly, he/she scores the number of points shown on the dial. Refer to Gameboard Answers for correct responses.
- 2) When player lands on "Bonus" space or when dial points to "Bonus", a bonus card is taken. If answered correctly, player scores the number of points circled on the top of the card. After the bonus turn has been taken, the player spins the dial and plays again.
- 3) Players alternate turns. Player with highest number of points at the end of the game is the winner.

PIE-IN-THE-SKY

Be the first player to place 3 markers in a row, in any direction.

Outcome:	Facts & Skills
Contents:	Game board 60 markers Spinner 15 Fruit pieces
Duration:	20 minutes
Players:	2 – 4 players
Grades:	Grades 1 - 5

SET UP:

- 1) Each player takes all of one type of marker (such as all ice cream with a cherry).
- 2) Place all fruit pieces, fruit side up in the box.
- 3) Each fraction family is represented as a different flavor pie on the game board menu.
- 4) The fractions on the spinner are color coordinated with the menu.
- 5) Use the menu to help locate the correct flavor if necessary.

HOW TO PLAY:

- 1) The first player spins and places a marker on the pie space that represents the fraction on the spinner or an equivalent fraction (also on the spinner).
- 2) If a player spins a whole 1, he/she must choose an equivalent fraction.
- 3) If a player spins a fraction and the pie space already has a marker on it, the player may place his/her marker on top of the other player's marker. The marker on top controls the pie space. Players may continue to stack markers until they are "high in the sky".
- 4) Pick-a-fruit: If a player spins this, he/she chooses one fruit piece from the box and reads the message on the back, then returns the fruit piece to the box. The messages are:
 - a) Lose a pie: player removes one of his/her markers from the game board
 - b) Trade pies: swap pies with another player
 - c) Pick a pie: player places a marker on any pie that matches the fruit piece he/she chose.
- 5) The first player to place 3 markers in a row in any direction wins.

Presto Change-O

Outcome: Money game; practice making change

Contents: Paper money; ten \$5 bills & twenty \$1 bills
Coins; twenty quarters; twelve dimes; ten nickels
1 game board
1 die
4 game pawns
8 game chips

How to set up:

- 1) Each player starts with two \$1 bills, game pawn & 2 chips that match the color of the pawn
- 2) Place all money on the marked spaces in the Treasury area in the center of the game board.

To play:

- 1) Determine who goes first. Play begins on the Magic Castle space. Play proceeds in a counterclockwise direction.
- 2) Player rolls die and moves the indicated number of spaces to the right.
- 3) Player either pays or receives money from the Treasury depending upon what instructions are on the game space.
- 4) Players must continuously make change because they must never have more than the following amount of bills or coins at any time

(1) \$5 bill (4) \$1 bills (3) quarters (2) dimes (1) nickel

- 5) If a player sees another player with more than the above amounts, call out "Presto Change-O". The player who has exceeded the limits, loses their next turn and must immediately exchange money to meet the limits. If you falsely call out "Presto-Change-O" on another player, you lose your turn.
- 6) First player to save \$10 wins – must be in correct bill/coin limits.

Each time you pass *Magic Castle* corner, you collect \$1 from the Treasury.

If you land on *Rainy Day Savings* corner, you may choose to deposit \$1 with the Treasury and place one of your colored game chips on the space. Then, each time you pass this corner, you collect 25 cents "interest" from the Treasury.

If you land on the *Magic Mirror* corner, immediate roll the die again. When you move to that space, you will pay or receive double what it says.

At *Rent a Rabbit* you can choose to buy the "shop" by depositing \$2 in the Treasury and placing your game chip on the space. Then if any player who lands on that space they must pay you 85 cents.

PRIMEPAK CARD GAME

Players must form factor sets - for example $20=4 \times 5$ - so that the number 20, 4 and 5 form a factor set. There are four different card games, six deck levels.

Outcome: Pre-algebra
Contents: card deck
Duration:
Players: 1-6 players or teams
Grade: 2 and up

QUIZMO - ADDITION/SUBTRACTION

Bingo style game to strengthen math skills. The leader reads problems aloud and players compute the answer to find the solution on playing cards. Up to 40 players. Extended activities available.

Outcome: Facts & Skills
Contents: 40 double sided game cards
100 double sided calling cards
markers
Inventory: 1 game
Players: up to 40 players per game
Grades: Grades 1 and up

How to Play:

- 1) Select whether addition or subtraction will be played.
- 2) Distribute one game board to each player and make sure they are playing the correct side.
- 3) See that each player has a set of markers.
- 4) The caller shuffles the calling cards and reads the addition or subtraction problem.
- 5) If the answer is on the player's game board, it should be covered with a marker. Sometimes the answer may appear in more than one space on the game board and only one space should be covered in each turn.
- 6) When a player has covered all five spaces in one row – either across, up, down or diagonally, the winning player calls out "Quizmo".
- 7) Double check the winner's card before quitting the game.

Recommendations:

- * For lower grades, break up the class into smaller groups. It takes too long waiting for the entire class to finish their equations.

QUIZMO - FRACTIONS/DECIMALS

Bingo style game with two levels of play. A total of 140 questions covering addition, subtraction, equivalency and greater/less than. Up to 36 players.

Outcome: Facts & Skills
Contents: 36 double sided playing cards
140 questions
markers
Inventory: 1 game
No of Player: up to 40 players per game
Grade: 3 and up

Set-Up:

- 1) Provide each player with a pencil and scratch paper to work out the answers.
- 2) Distribute one game board to each player.
- 3) Make sure everyone has enough markers.
- 4) Determine whether you will be playing Fractions or Decimals and turn the game board to the correct side.
- 5) Let the players review their game board briefly before starting.
- 6) Shuffle the cards.

How To Play:

- 1) Announce what the winning pattern will be:
 - *five in a row in any direction
 - *five straight down only
 - *four corners only
 - *the entire card
- 2) Read the question on the calling card.
- 3) Each player should place a marker on the correct answer if it appears on their game board. The correct answer may not be on every game board.
- 4) Continue reading questions aloud from the calling cards until there is a winning player.
- 5) Other players should leave their markers on their game boards until the winner is confirmed.

Recommendations:

- * Break up the class into smaller groups. It takes too long waiting for the entire class to finish their equations.

Variation

- * Set up two or more teams. Use the calling cards and the team that answers the most questions correctly wins.

QUIZMO - MONEY

Reinforce money value recognition with this bingo style game. Two games in one. Game One uses actual size coin graphics. Game Two uses numeric money values. Up to 40 players

Outcome: Money
Contents: 40 double sided game cards
30 calling cards for game one
30 calling cards for game two
Master chart of all values used
plastic bingo markers
Inventory: 1 game
Players: up to 40 per game
Grades: Grades 1-5

How to Play:

- 1) Distribute one game board to each player.
- 2) See that each player has a supply of markers.
- 3) Give the players time to study the sets of coins or currency on their cards.
- 4) The caller announces which pattern will be considered the winning pattern
 - a) four across in a row
 - b) three straight down
 - c) four corners
 - d) the entire card
- 5) The caller shuffles cards then starts calling out the money value on a card. The card can be shown to the players and placed over the master chart.
- 6) Players count the sets of coins on their cards to see if one of their sets matches the called values. If so, it is covered with a marker.

QUIZMO - MULTIPLICATION/DIVISION

Bingo style game to strengthen math skills. The leader reads problems aloud and players compute the answer to find the solution on playing cards. Extended activities available.

Outcome: Facts & Skills
Contents: 40 double sided game cards
100 double sided equation cards
markers
Grades: Grades 3-7

How to Play:

- 1) Select whether multiplication or division will be played.
- 2) Distribute one game board to each player and make sure they are playing the correct side.
- 3) See that each player has a set of markers.
- 4) The caller shuffles the calling cards and reads the multiplication or division problem.
- 5) If the answer is on the player's game board, it should be covered with a marker. Sometimes the answer may appear in more than one space on the game board and only one space should be covered in each turn.
- 6) When a player has covered all five spaces in one row – either across, up, down or diagonally, the winning player calls out "Quizmo".
- 7) Double check the winner's card before quitting the game.

Recommendations:

- * Break up the class into small groups because it can take too long for some players to work on their equations.

QUIZMO - TELLING TIME

Learn the concept of telling time while playing this bingo-type game. Objectives include telling time by various increments in both words and numbers and teaching such terms as past, of and to the hour. Extended activities available.

Outcome: Time
Contents: 39 bingo cards
20 calling cards
plastic markers
teacher's clock
Players: 2 – 39
Grades: 1 - 4

How to Play:

- 1) For beginners, use the clock dial side of the cards. Assist the players in constructing their clocks. The teacher or group leader may want to use the large clock to show the times to be copied. Practice a few calls.
- 2) The caller calls out or displays a time found on the calling cards.
- 3) When a player has covered all four spaces in one column, up and down, they can say "Quizmo".

Shape and Color (Readiness Math Game)

Outcome: Practice matching shapes and colors

Contents: Math Gameboard – Side 2

Shape and Color Spinner

Markers

How to set up:

- 1) Use Side 2 of Math gameboard
- 2) Players select markers; determine who goes first

How to play:

- 1) First player spins spinner; if stops on a line – spin again.
- 2) Player moves marker to the first colored shape on the board that matches the color and shape on the spinner.

More than one marker can land on the same shape.

Object of the game:

Reach a colored shape on the rainbow at the end of the gameboard path.

S'MATH

The object of the game is to score points by making math equations.

Outcome: Facts and Skills
Contents: game board and tiles
Duration: 20-30 minutes
Players: 4 players per game board
Inventory: 7 games

Setup:

- 1) Keep equal (=), and bracket (()) tiles separate for players to use at anytime during the game.
- 2) Each player picks 10 tiles and places them on their tray.
- 3) Each player should keep a scratch paper and pencil to keep their score.

How to Play:

- 1) Equations can be made in 2 directions: horizontally or vertically
- 2) Players can use as many equal signs and brackets as they need.
- 3) Blank tiles may be used as any number or math sign. The value selected remains the same for the rest of the game.
- 4) The first player places their first or last tile of an equation on the start square.
- 5) Subsequent players can form new equations or extend an existing equation.
- 6) After each turn, replace tiles from the bag to keep 10 tiles on the rack.
- 7) If a player passes, his/her tiles may be replaced for new one.

Scoring:

- 1) Add up the value of the tiles. Blanks, (=) and () have no point value.
- 2) If a tile is covering a bonus, increase the score as directed. The bonus counts only the first time a player covers it.
- 3) At the end of the game, the values left on a players rack are subtracted from their total score.

SUM SWAMP

Venture over the crocodile shortcut and through the endless loop by adding and subtracting the numbers on the dice.

Outcome: Facts & Skills
Contents: 12" x 17" game board
four little critter game pieces
two number dice

Set-Up:

- 1) Each player chooses a game piece and places it on start.
- 2) Players roll one number die and the player with the highest number goes first.

How to Play:

- 1) The first player rolls all 3 dice and creates a number sentence by placing the highest number die first, the operation die second and the smallest number die last.
- 2) The player adds or subtracts the numbers and moves ahead the sum or difference.
- 3) If a player rolls a combination that equals "0", then he/she does not move.
- 4) Each player does steps 1 – 3. The first player to reach the finish space is the winner.
- 5) Even or Odd Spaces: If a player lands on one of these spaces, he/she rolls one die. If the player rolls an even or odd number as indicated on the game board, he/she can move ahead that number of spaces. If an even or odd number is not rolled, they so not move.
- 6) Number Space: If a player lands on a number space, he/she rolls the operation die. If a "+" is rolled, the player moves ahead the number indicated on the space. If a "-" is rolled, the player moves back that number.
- 7) Short Cut: If a player lands on one of these spaces, he/she follows the arrow as indicated on the board.
- 8) Endless loop: All players enter the loop as the arrow on the board indicates. However, the player can exit the endless loop only by landing on the space marked "exit".

Recommendations:

- 1) The first time playing this game may require additional parent volunteers to help guide the kids

Totally Tut – Level 1

Outcome: Addition & Subtraction

Contents: 1 game board

4 pyramid trays

55 yellow number triangles

26 orange answer triangles

24 pink double sided addition & subtraction operation triangles

Object: Fill in your pyramid game board with triangle pieces by building math problems.

Set up: Place all yellow and orange number triangles with numbers face down. Place pink operation triangles in four piles near each corner of the board.

Each player takes: 5 yellow number triangles, 1 orange answer triangle & 1 pyramid tray

Players place the orange answer piece in the top triangle of their pyramid. Players try to complete accurate math problems in each row of the pyramid that equal the number of their answer pyramid piece.

Example: Orange Answer Pyramid number is 4

Row 1 has three triangles – possible correct problem could be: $9 - 5$

Row 2 has five triangles – possible correct problem could be: $8 - 5 + 1$

Row 3 has seven triangles – possible correct problem could be: $9 + 1 - 7 + 1$

NOTE: *Operation triangles may be used in any order and with any frequency

*Number sentence must correctly total the answer triangle at the top of the pyramid
(negative values are not allowed)

How to play:

- 1) Determine who goes first. Player spins spinner – there are four possible moves:
 - TRADE – player chooses one of his/her number triangles from the tray to swap with another player's number triangle.
 - STEAL – player takes one yellow triangle off another player's pyramid
 - DRAW - player takes one yellow triangle from the center pile
 - NO NEW NUMBER – player can only play the pieces already in front of him/her
- 2) After player has spun and completed move from the spinner, he/she places triangles on the game board, filling in as many rows as possible. After all possible triangles are placed, player draws one triangle from center of pile. If no triangles could be placed, player still draws one triangle from center of pile. The drawn triangle cannot be played until the next turn.
- 3) In order for row to be completed, player must read the math facts out loud. If a player has a piece stolen from one of the completed pyramid rows, the player has the option of removing that whole line or rearranging it. This includes replacing the number stolen, switching the order with one or more new numbers or any arrangement to complete the row correctly. This option is taken by giving up a chance to spin. The player still draws a new triangle when the rearrangement is complete. After player has drawn the new triangle from the center pile, play continues clockwise.

Totally Tut – Level 2

Outcome: Addition, Subtraction, Multiplication, Division & Order of Operations

Contents: 1 game board

4 pyramid trays

55 yellow number triangles

8 green number triangles

26 orange answer triangles

8 red answer triangles

24 pink double sided addition & subtraction operation triangles

24 blue double sided multiplication & division operation triangles

Object: Fill in your pyramid game board with triangle pieces by building math problems.

Set up: Place all number triangles with numbers face down. Place pink and blue operation triangles in four piles near each corner of the board.

Each player takes: 5 number triangles (yellow or green), 1 answer triangle & 1 pyramid tray
Players place the answer piece (orange or red) in the top triangle of their pyramid. Players try to complete accurate math problems in each row of the pyramid that equal the answer number.

Example: Answer Pyramid number is 16

Row 1 has three triangles – possible correct problem could be: 4×4

Row 2 has five triangles – possible correct problem could be: $6 \times 4 - 8$

Row 3 has seven triangles – possible correct problem could be: $2 + 2 \times 2 \times 2$

NOTE: *Operation triangles may be used in any order and with any frequency

*Number sentence must correctly total the answer triangle at the top of the pyramid
(negative values are not allowed)

How to play:

1.) Determine who goes first. Player spins spinner – there are four possible moves:
TRADE – player chooses one of his/her number triangles from the tray to swap with another player's number triangle.

STEAL – player takes one yellow triangle off another player's pyramid

DRAW - player takes one yellow triangle from the center pile.

NO NEW NUMBER – player can only play the pieces already in front of him/her

2.) After player has spun and completed move from the spinner, he/she places triangles on the game board, filling in as many rows as possible. After all possible triangles are placed, player draws one triangle from center of pile. If no triangles could be placed, player still draws one triangle from center of pile. The drawn triangle cannot be played until the next turn.

3.) In order for row to be completed, player must read the math facts out loud. If a player has a piece stolen from one of the completed pyramid rows, the player has the option of removing that whole line or rearranging it. This includes replacing the number stolen, switching the order with one or more new numbers or any arrangement to complete the row correctly. This option is taken by giving up a chance to spin. The player still draws a new triangle when the rearrangement is complete.

After player has drawn the new triangle, play continues clockwise.

Travel Math

Contents: Gameboard
Instructions / Answer Card
30 problem cards with three levels on each card
4 pawns

Each player will need a pencil and paper

Level 1: grades 2-4

Level 2: grades 4-6

Level 3: grades 5-7

To set up:

- 1) Determine who goes first.
- 2) Shuffle cards and place face down.

To play:

- 1) Player spins and takes a problem card. If answered correctly (check with answer key on back of instructions), pawn is moved the number of miles indicated on the spinner.
- 2) If incorrect answer is given, player does not advance.
- 3) Problem card is placed face down on bottom of pile.
- 4) Play continues clockwise to next player.
- 5) First player to reach "Funland USA" is the winner.

Which One? (Readiness Math Game)

Outcome: Practice number sequence

Contents: Math gameboard – side 1

Which One? Cards

Markers

How to set up:

- 1) Use Side 1 of Math gameboard
- 2) Shuffle the Which One? Game cards. Place them face up (two numbers and a blank line showing) in a pile of the area marked cards.
- 3) Each child chooses a marker; determine who goes first

How to play:

- 2) First player takes top card and says missing number in the sequence. Player checks back of card for correct answer.
- 3) If correct, player moves marker to first number on the board, which matches the correct answer. If incorrect player does not move. Return card to bottom of the deck.

More than one player can land on the same square.

Object of the game:

Reach the last number 10 or answer a card with a number other than what is left on the board path is the winner. Ex: If the player is on the last 6 and answers a sequence problem with an answer of 2 – player would not move backward; this would be the final card for that player.

Yahtzee

To determine who goes first, each player rolls all five dice and counts out the total. Player with highest total goes first, play continues clockwise. Each player has their own score card.

Player is allowed a maximum of three rolls per turn.

A. For first roll, player must roll all five dice. Player may score from this roll or pick up any or all dice to roll again.

B. For second and third rolls, player may again pick up any or all dice. Player does not need to declare what combination is being played and may change mind at any time.

C. The dice are final after the third roll and must be scored.

SCORING

There are thirteen scoring rounds per game. Each box may only be used once in a game. If a player is unable to place a score in an open box, a 0 must be entered.

Upper Section:

If player chooses to score in the upper section, count and total only those dice that match the box which is being played.

If a player has a total score of 63 in the upper section, a bonus of 35 points is added.

Lower Section:

The score card of the lower section is played exactly as indicated on the card.

Note:

Full House = 3 of a kind + 2 of a kind

Yahtzee bonus: If player has already scored a Yahtzee at 50 points, player will receive a chip and 100 points for any subsequent yahtzee rolled. The

Player can then use this yahtzee as a "joker" and fill in any open box with

a) the point total of all rolled dice for any open upper section box or the 3 of a kind, 4 of a kind, or chance open box in the lower section

Or b) the appropriate score for full house, small straight or large straight open box

Upper and Lower Sections are added for Grand Total.

