Math-tivities For The Early Grades

Karen Meyer
2205 Enterprise Drive
Suite 501
Westchester, IL 60154
meyerk@illinois.edu
708-449-4320

www.extension.illinois.edu/cook

www.scoop.it/t/fun-math-for-teachers

UNIVERSITY OF ILLINOIS
EXTENSION

Fun Math For Teachers

Math websites for teachers and parents to engage students in mathematics

Curated by Karen Meyer

Education

Paste a link to create a new scoop >>

Scoop without link | Upload your own document | Get suggestions

Scooped by Karen Meyer

Illinois Teach and Talk

From www.iteachandtalk.org - June 1, 8:51 AM

The K-5 Math Teach and Talk website has been updated and is now K-8! Head over to the website and see the new material. New Teacher Guides and PowerPoints for Daily Discourse for 6th, 7th and 8th grade are now available.

Karen Meyer's insight:
Lots of lessons, powerpoints, and materials to use with specific Common Core standards for grades K-8

Scooped by Karen Meyer

Yummy Math

From www.yummymath.com - April 30, 12:50 PM

Check out some of the "real-world" problems on the birds eye view on this site. Let's make math real!

Scooped by Karen Meyer

Teachers Pay Teachers

From www.teacherspayteachers.com - November 19, 2012 12:39 PM

TeachersPayTeachers.com – An Open Marketplace for Original Lesson Plans and Other Teaching Resources

300,000+ free and priced teaching resources created by teachers for download including lesson plans, unit plans, novel studies, worksheets, printables, PowerPoint Presentations, quizzes,

Scooped by Karen Meyer

Math is Fun!

From www.mathsisfun.com - May 1, 9:10 AM

This site has a wide variety of games on all topics for all grade levels. Check out the estimation games and sharpen your estimation skills.

Scooped by Karen Meyer

Bedtime Math | A new math problem every night.

From www.bedtimemath.org - April 2, 2012 9:47 AM

"We all know we should read to our kids. But even if bedtime stories are routine in your house, when's the last time you gave your kids a bedtime math problem? Probably never." (USA TODAY, March 28, 2012) This nonprofit site will send you simple enjoyable math problems to do with your child each day when you sign up. Especially useful with laptops and tablets.

Scooped by Karen Meyer

Math Solutions

From mathsolutions.com - September 19, 2014 10:22 AM

" Making Sense of Math"

Karen Meyer's insight:
Check out the large variety of free resources including lessons, video, quick tips, webinars, and more to help your students make sense of math.

exams, workbooks, projects and more.

Scooped by Karen Meyer

Achievethecore.org :: Home

From achievethecore.org - September 19, 2014 10:08 AM

" Find, steal, and share free Common Core tools. For teachers, coaches, school and district leaders. Assembled by Student Achievement Partners."

Karen Meyer's insight:
Tasks, assessments, lessons, resources and more - all tied to Common Core ELA and Math standards.

Scooped by Karen Meyer

IL K-5 Materials

From ilk-5materials.weebly.com - December 16, 2014 10:52 AM

" IL K-5 Materials"

Karen Meyer's insight:
See draft materials for Kindergarten through 5th grade that are aligned to the New Illinois Learning Standards and designed to promote Conceptual Understanding and Fluency. These materials are correlated to specific Common Core standards at each grade level. Activities and powerpoints are included in these materials.

Scooped by Karen Meyer

Illustrative Mathematics

From www.illustrativemathematics.org - September 19, 2014 10:11 AM

Karen Meyer's insight:
Activities and lessons linked to each grade level content standard in the Common Core.

Scooped by Karen Meyer

Illuminations: Welcome to Illuminations

From illuminations.nctm.org - January 26, 2012 9:25 AM

This is a great site for online activities as well as lessons at any grade level and topic. Illuminations is done by the National Council of Teachers of Mathematics.

Scooped by Karen Meyer

GregTangMath.com

From gregtangmath.com - October 30, 2013 1:32 PM

" A revolutionary, free online math program comprising games, animated books and downloadable materials."
Check out the games and Kakooma on this site for activities to reinforce skills in the common core.

Karen Meyer's insight:
Greg Tang is amazing. Check out all the free materials on this site - great for classroom use and math center activities

Scooped by Karen Meyer

Sheppard Software: Fun free online learning games and activities for kids.

From www.sheppardsoftware.com - February 20, 12:32 PM

" Hundreds of fun educational games and activities for kids to play online. Topics include math, geography, animals, and more."

Common Core STANDARDS FOR MATHEMATICAL PRACTICE

1. Make sense of problems and persevere in solving them
6. Attend to precision

2. Reason abstractly and quantitatively

3. Construct viable arguments and critique the reasoning of others

4. Model with mathematics

5. Use appropriate tools strategically

7. Look for and make use of structure.

8. Look for and express regularity in repeated reasoning.

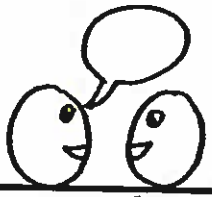
Reasoning & explaining

Modeling and using tools

Seeing structure and generalizing

Overarching habits of mind of a productive mathematical thinker

Practice Standards

1		I can solve problems without giving up.
2		I can think about numbers in many ways.
3		I can explain my thinking and try to understand others.
4		I can show my work in many ways.
5		I can use math tools and tell why I chose them.
6		I can work carefully and check my work.
7		I can use what I know to solve new problems.
8		I can discover and use shortcuts.

Why Games?

- Give students a chance to develop and practice their math skills while they are engaged in an activity they enjoy
- Students often perform more mathematics in games than when using traditional worksheets and gain computational fluency
- Give students an opportunity to receive extra help from you and others
- You can find out which students need help as an informal assessment
- Students share strategies and verbalize their math
- Instructional tool that is connected to student outcomes
- Opportunities for improving social skills – take turns, follow rules, play fairly, pay attention, learn from mistakes, etc.
- Participation and practice builds self-confidence and competence as well as positive attitudes towards math
- Opportunity for visual, auditory, and kinesthetic senses
- Differentiate instruction for readiness levels of diverse learners

Suggestions on how to use games in your classroom and beyond:

- Give all students a chance to play
- If appropriate give students a choice in games
- Pick the right game for the right reason (not just because it is fun)
- Teach the game to the entire class first, thinking out loud, and play the game a number of times until it is well understood. (Be sure you have played the game yourself!)
- Encourage children to play the games at home for extra practice – possibly include the rules for a game in a newsletter for parents. This supports student learning and develops positive attitudes towards math.
- During parent-teacher sessions, if parents ask what they can do, give them copies of some of the game instructions.
- Games should complement your math program, not replace it.

Common Addition and Subtraction Situations (pg 88 in CCSS)

Shading taken from OA progression

	Result Unknown	Change Unknown	Start Unknown
Add to	Two bunnies sat on the grass. Three more bunnies hopped there. How many bunnies are on the grass now? 2 + 3 = ?	Two bunnies were sitting on the grass. Some more bunnies hopped there. Then there were five bunnies. How many bunnies hopped over to the first two? 2 + ? = 5	Some bunnies were sitting on the grass. Three more bunnies hopped there. Then there were five bunnies. How many bunnies were on the grass before? ? + 3 = 5
Taken from	Five apples were on the table. I ate two apples. How many apples are on the table now? 5 – 2 = ?	Five apples were on the table. I ate some apples. Then there were three apples. How many apples did I eat? 5 – ? = 3	Some apples were on the table. I ate two apples. Then there were three apples. How many apples were on the table before? ? – 2 = 3

	Total Unknown	Addend Unknown	Both Addends Unknown[1]
Put Together/ Take Apart[2]	Three red apples and two green apples are on the table. How many apples are on the table? 3 + 2 = ?	Five apples are on the table. Three are red and the rest are green. How many apples are green? 3 + ? = 5, 5 – 3 = ?	Grandma has five flowers. How many can she put in her red vase and how many in her blue vase? 5 = 0 + 5, 5 = 5 + 0 5 = 1 + 4, 5 = 4 + 1 5 = 2 + 3, 5 = 3 + 2

	Difference Unknown	Bigger Unknown	Smaller Unknown
Compare[3]	("How many more?" version): Lucy has two apples. Julie has five apples. How many more apples does Julie have than Lucy? ("How many fewer?" version): Lucy has two apples. Julie has five apples. How many fewer apples does Lucy have than Julie? 2 + ? = 5, 5 – 2 = ?	(Version with "more"): Julie has three more apples than Lucy. Lucy has two apples. How many apples does Julie have? (Version with "fewer"): Lucy has 3 fewer apples than Julie. Lucy has two apples. How many apples does Julie have? 2 + 3 = ?, 3 + 2 = ?	(Version with "more"): Julie has three more apples than Lucy. Julie has five apples. How many apples does Lucy have? (Version with "fewer"): Lucy has 3 fewer apples than Julie. Julie has five apples. How many apples does Lucy have? 5 – 3 = ?, ? + 3 = 5

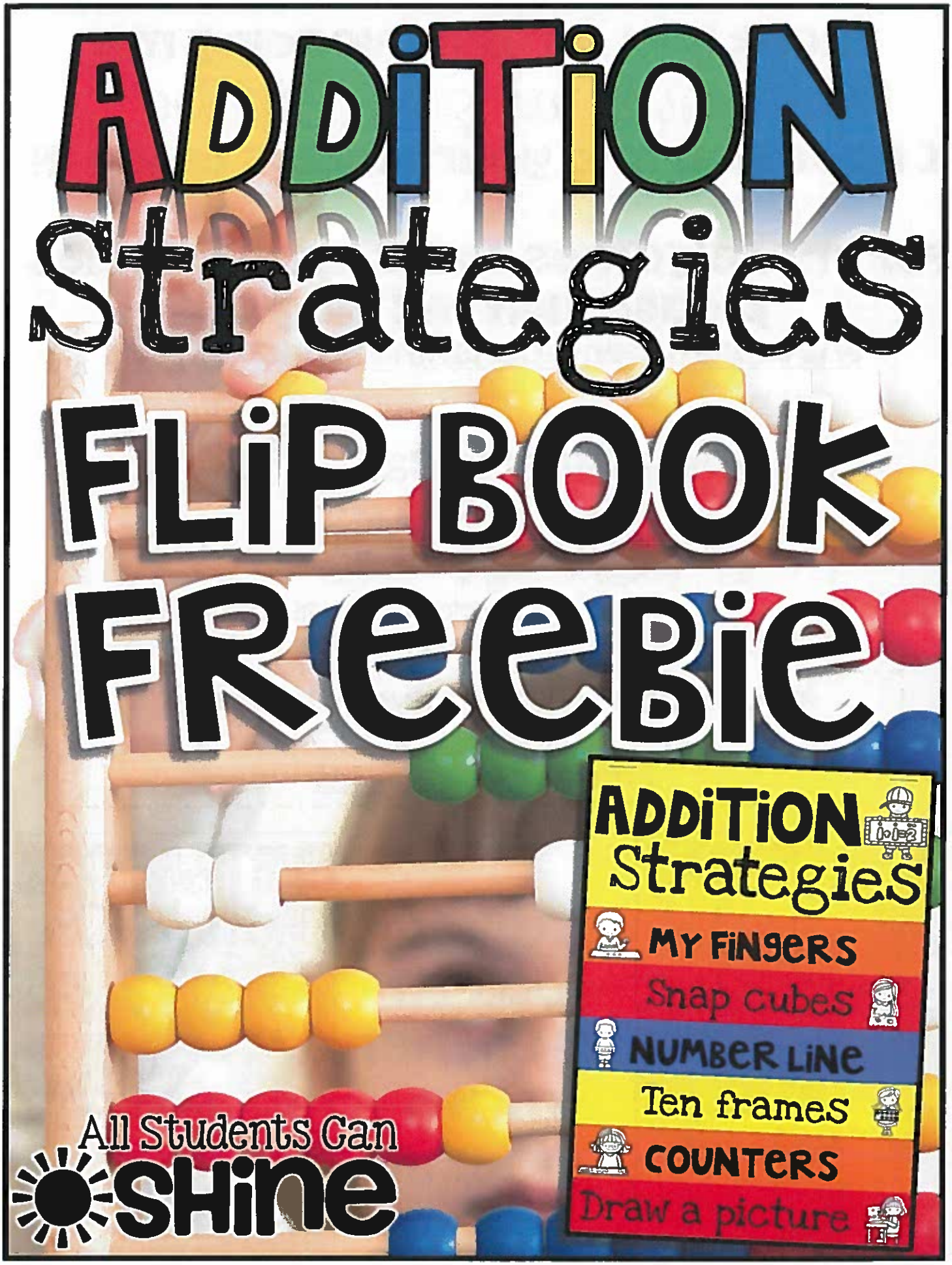
Blue shading indicates the four Kindergarten problem subtypes. Students in grades 1 and 2 work with all subtypes and variants (blue and green). Yellow indicates problems that are the difficult four problem subtypes or variants that students in Grade 1 work with but do not need to master until Grade 2.

[1]These take apart situations can be used to show all the decompositions of a given number. The associated equations, which have the total on the left of the equal sign, help children understand that the = sign does not always mean makes or results in but always does mean is the same number as.

[2]Either addend can be unknown, so there are three variations of these problem situations. Both Addends Unknown is a productive extension of this basic situation, especially for small numbers less than or equal to 10.

[3]For the Bigger Unknown or Smaller Unknown situations, one version directs the correct operation (the version using more for the bigger unknown and using less for the smaller unknown). The other versions are more difficult.

Addition Strategies Flip Book Freebie



All Students Can Shine

Thank you for downloading my Addition Strategies Flip Book

I hope you and your kiddies enjoy it!

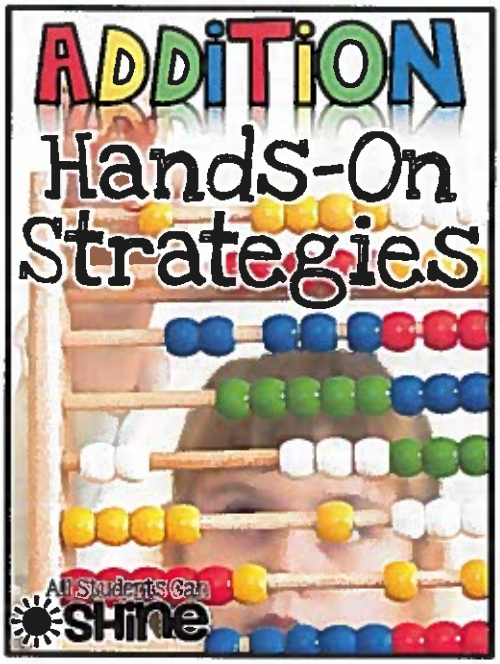
For more games, units, and freebies please visit my blog at

www.allstudentscanshine.blogspot.com

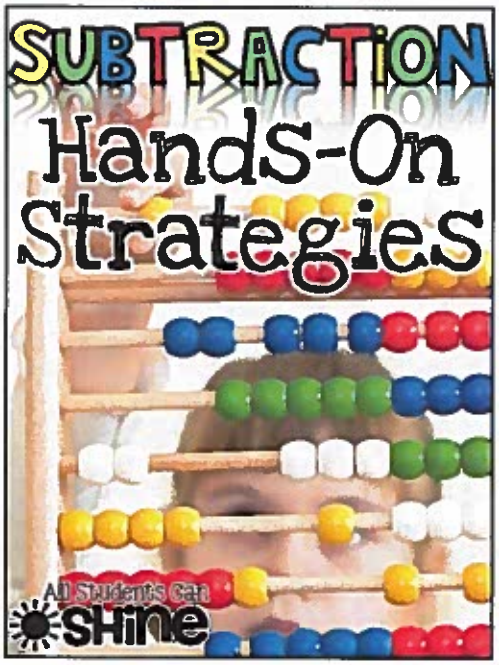
All Students Can SHine

...helping students find their spark!

Graphics in this product are from Whimsy Workshop & Teacher Laura,
Fonts from KG Fonts



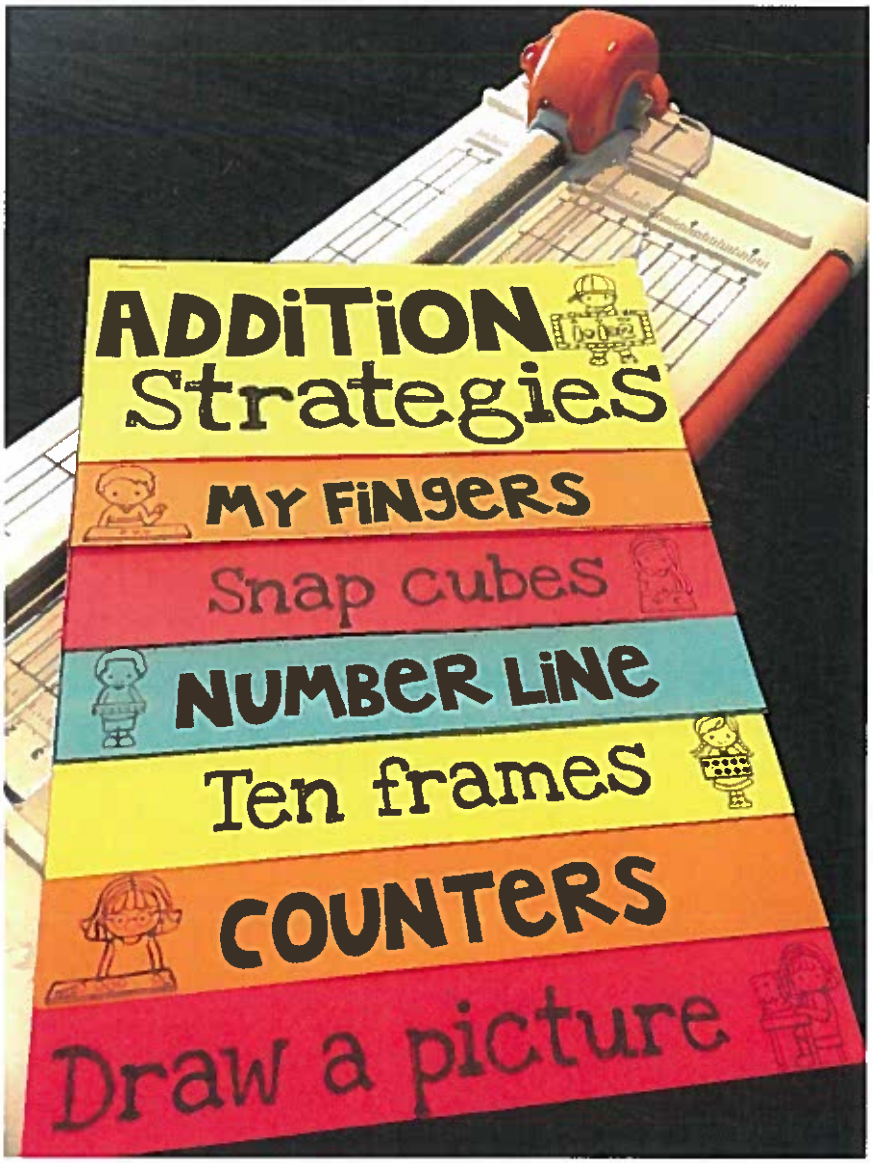
Take a look at my other math packs!



INSTRUCTIONS: Copy the pages on different colored papers. I just throw a bunch of colors in the copy machine and let my kids choose one color for each flap. This way, everyone has a different book!

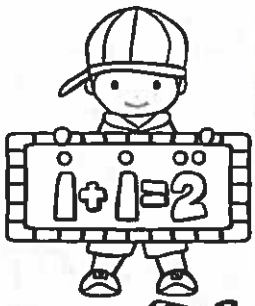
If you don't want to use colored paper, I suggest having your students trace the titles of each flap with markers. This is an easy way to dress up their book.

Have students cut each page. Place them on top of each other, in the order that they appear in this pack, and staple them at the top!



All Students Can SHINE

ADDITION Strategies

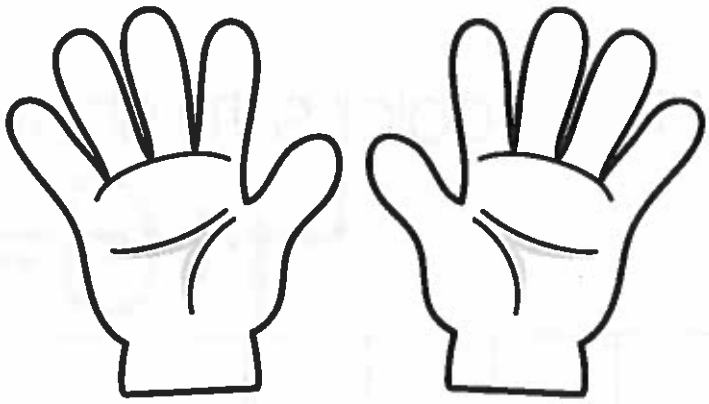


Name:

I can use my fingers to add numbers.

Color the fingers to show the equation:

$3+4=7$

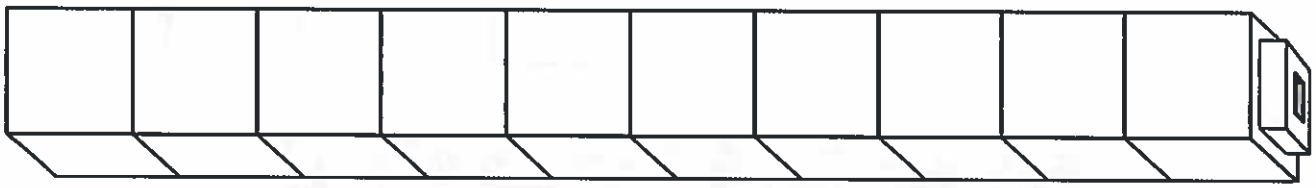


My Fingers

I can use snap cubes to add numbers.

Use 2 colors to show the equation:

4+6=10

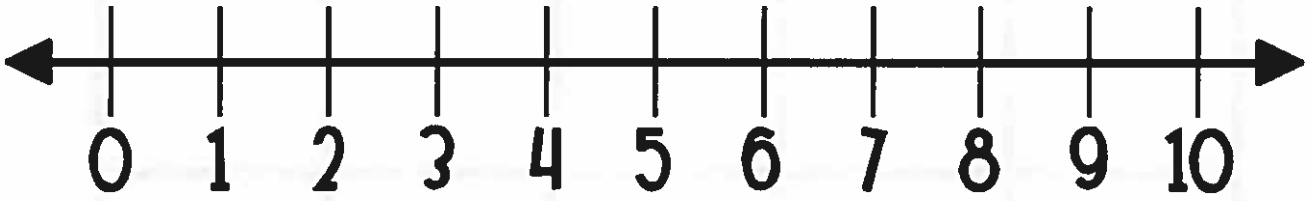


Snap cubes

I can use a number line to add numbers.

Use the number line to show the equation:

$$5+5=10$$

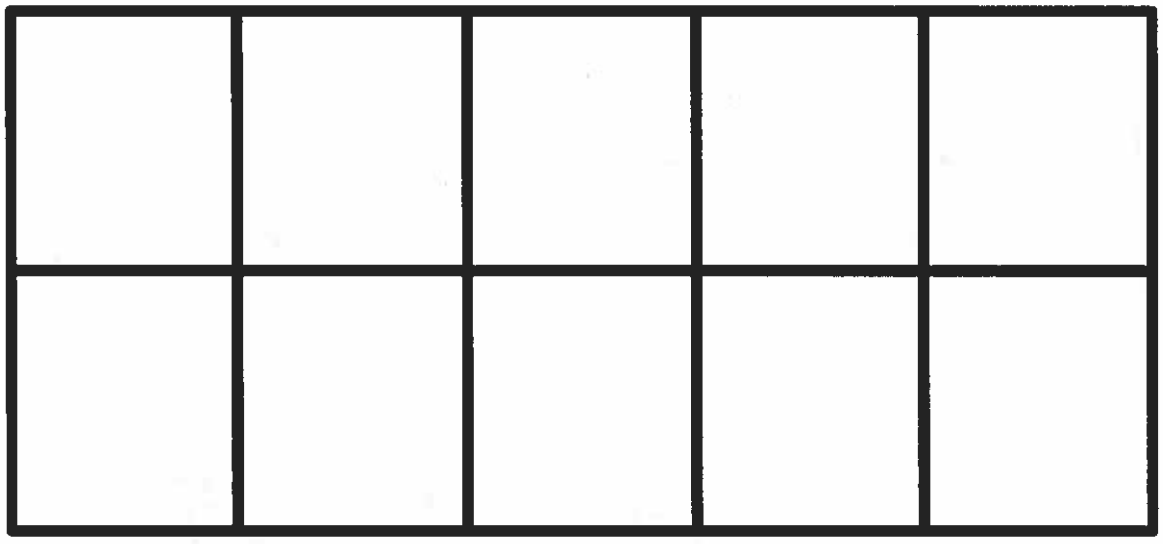


NUMBER LINE

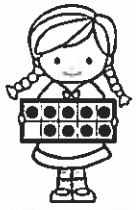
I can use ten frames to add numbers.

Use the ten frame to show the equation:

$7+3=10$



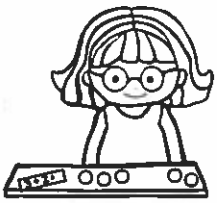
Ten frames



I can use counters to add numbers.

Draw yourself using counters
to show the equation:

2+8=10



COUNTERS

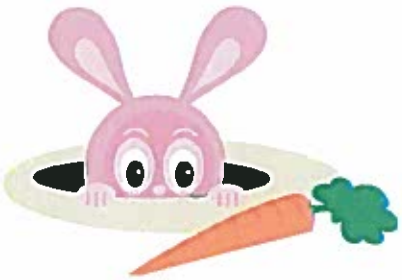
I can draw a picture to add numbers.

Draw a picture to show the equation:

$1+9=10$

Draw a picture

Bunny Ears



Players: Small groups or Class

Objective: To think figuratively about numbers in the range 1 to 10 and to partition numbers in the range 1 to 10.

How to Play:

- Children make two fists with their hands and then raise these to the top on their head to represent two bunny ears.
- The teacher then says a number, for example, 6, and the child raises fingers on both hands to make the number.
- One child might raise 4 fingers on one hand and 2 on the other while another child might raise 5 fingers on one hand and 1 on the other. A third child might raise 3 fingers on each hand.
- The children must try to do this without looking at their hands, but some initially might find it difficult and have to check by looking.
- If it is decided to emphasize the five-plus combinations, children could be asked to make combinations six to ten with five on one hand. For example 7 would be a 5 and 2, and 9 would be a 5 and 4.
- A simpler task involves children holding one hand above their heads and the teacher asks them to show 1 to 5 fingers.

Variations:

- Vary the activity by showing children a ten frame card and asking children to show the Bunny Ears for that amount.
- Vary the activity by showing children a numeral card and asking children to show the Bunny Ears for that amount.
- Vary the activity with the teacher showing the Bunny Ears and children are asked to say the amount.

K.OA.1

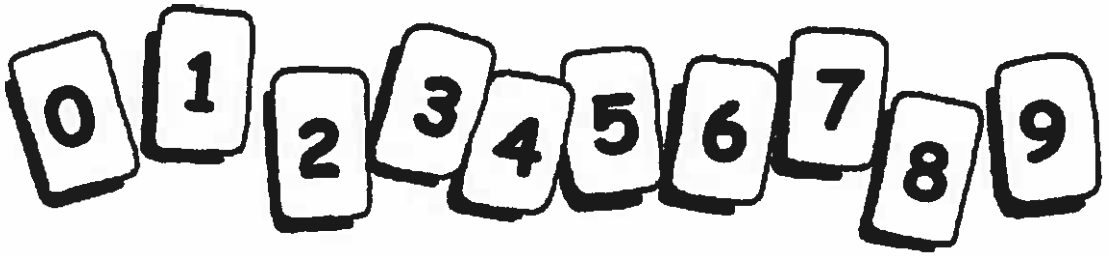
*Adapted from Teaching number in the classroom, R. Wright et al, 2006

Find 3 Cards

Materials: Number Cards (0-9)

---

1. Take ten cards numbered 0 – 9.
2. Find three cards that have a sum of 12.
3. How many different ways can you make a sum of 12 using three cards?
4. Record your work.



1.OA.2

Three Letter Addends

Materials: Scrabble tiles (or laminated copies of letter tiles on cardstock)

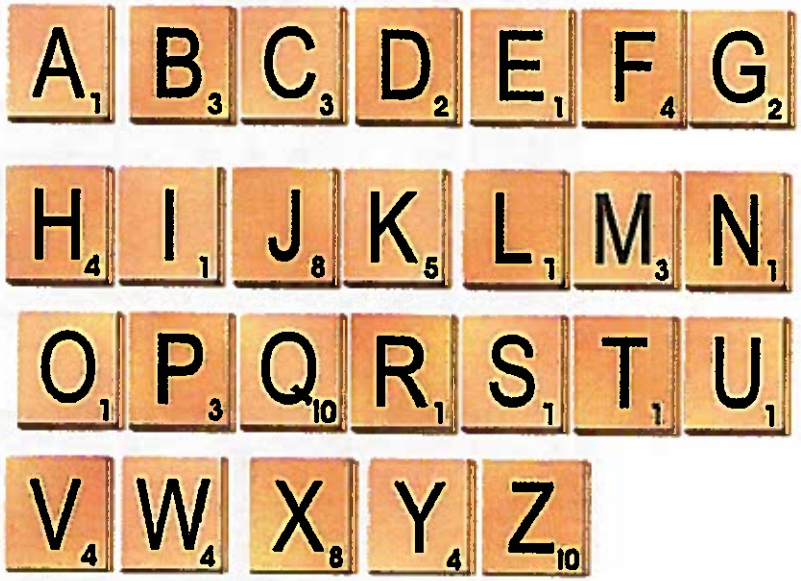
---

1. How many three letter words can you make using the letter tiles?

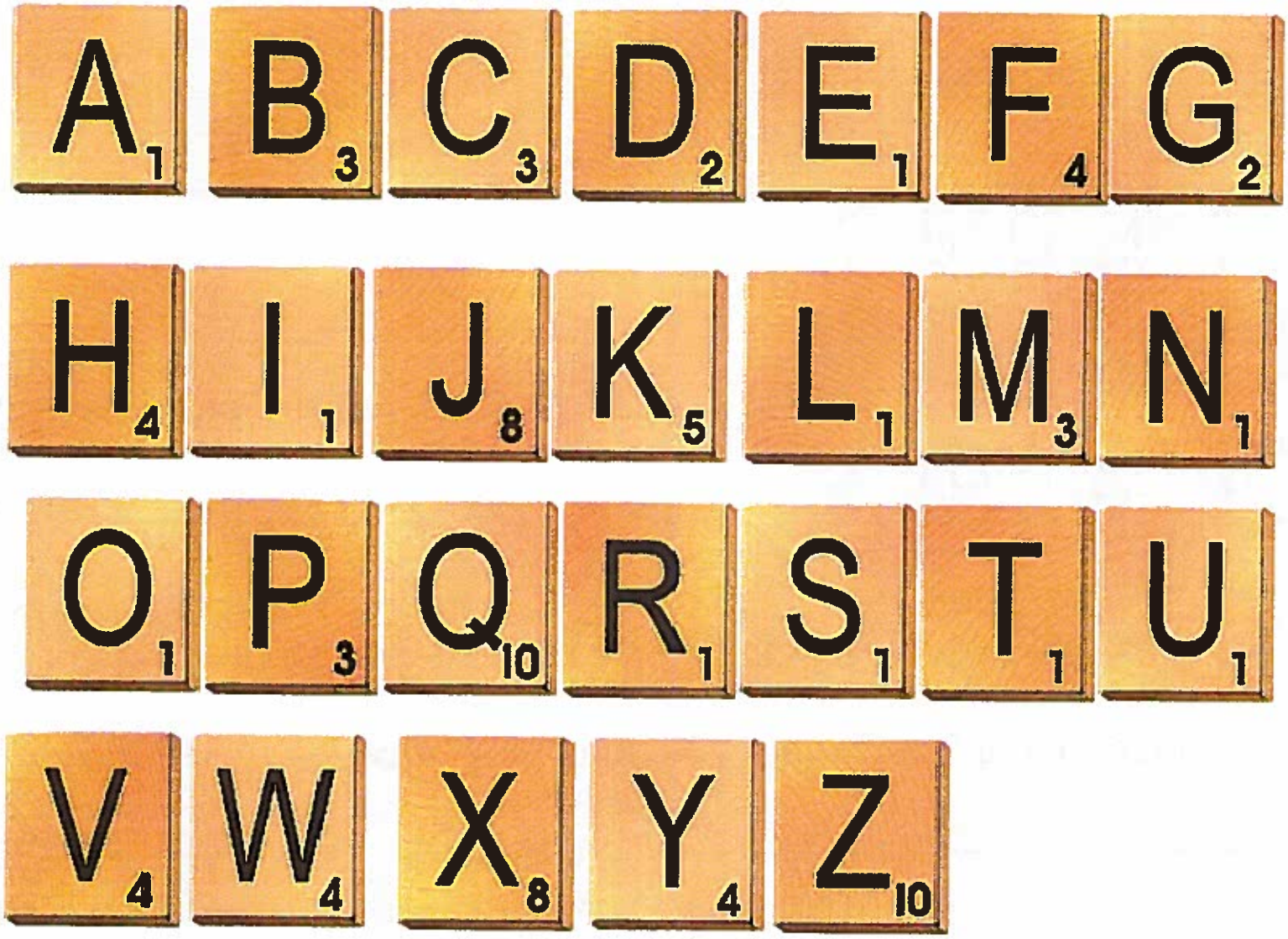
2. Find the sum of each word by adding up the numbers on each tile.
   Example: dog: 2 + 1 + 2 = 5

3. Which word has the greatest sum?

4. Which word has the smallest sum?



1.OA.2



Subtract or Add

Topic: Addition and subtraction facts

Object: Cover three numbers in a row with your counters.

Groups: 2 pair of players

KEY STANDARD

Apply properties of operations as strategies to add and subtract. (1.OA.B.3)

Materials for each group

- *Subtract or Add* Gameboard A,
- 2 number cubes (1–6)
- Counters (different kind for each pair)

Tips *If the game is sent home for additional practice, require adult players to get four in a row.*

Directions

1. The first pair rolls two number cubes. The pair decides whether to add or subtract the displayed amounts.
2. Next the pair states the equation and places a counter on the resulting sum or difference.

   Example: If 2 and 5 are rolled, the pair might cover 3 (5 – 2) or 7 (2 + 5).
3. If a pair rolls two sixes, the pair is allowed to roll again.
4. Pairs alternate turns rolling number cubes, stating equations, and placing counters on the gameboard.
5. The first pair to have three counters in a row horizontally, vertically, or diagonally wins.

7	5	3	10
2	0	6	1
6	4	2	7
1	3	8	0
4	1	5	2

Making Connections

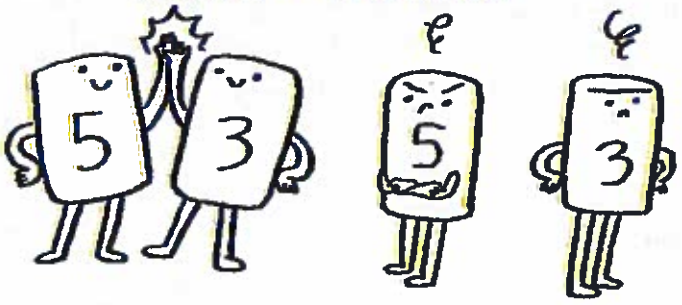
Promote reflection and make mathematical connections by asking:

- What strategies helped you line up your counters in a row?

* NCTM presentation, 2015

Subtract or Add

Gameboard A



5+3=8

5-3=2

7	5	3	10
2	9	6	1
6	4	2	7
1	3	8	0
4	1	5	2

Same Name

2 + 3	9 + 3	4 + 3	7 + 1	4 + 4
6 - 3	7 - 3	8 - 3	4 - 3	9 - 3
7 + 3	2 + 3	7 + 4	3 + 3	2 + 2
6 - 5	5 - 2	8 - 3	2 - 2	9 - 6
8 + 3	4 + 3	5 + 3	2 + 7	3 + 3
6 - 4	9 - 5	9 - 2	8 - 7	6 - 6
5 + 7	4 + 3	8 + 0	5 + 1	5 + 4
6 - 4	9 - 1	9 - 2	9 - 3	8 + 2

Place the game cards shown above face up on a table between two players. The players should alternate turns rolling a pair of dice. After each turn, either add, or subtract the numbers on the dice, and cross out an expression which produces the same result. The game ends when one of the players cannot find a matching card. The other player is declared the winner.

composition with addition, and subtraction **appropriate grades 1 and 2**

1.OA.3

Play in Pairs or Groups

22 Tic-Tac-Ten

Why This One?

The game of tic-tac-toe is quick and easy. Why not use it to make practicing facts to 10 quick and easy, too? This game is super-low prep yet gives students a quick way to develop that coveted fact fluency within 10.

Differentiate It!

- Have students try playing Tic-Tac-Hundred. They roll two dice for each turn, decide which number to use for tens and which for hundreds, and write the numbers in the grid so that three numbers in a row—horizontally, vertically, or diagonally—make a sum of 100.
- Have students create a graph to represent a series of games. Graphs can show wins, losses, and ties for each player. Have students write about their graphs: do they observe any patterns in the results?
- Before having students play this game with numbers, review the rules of traditional tic-tac-toe by playing with Xs and Os. Then transition to the game using numbers with the goal of adding to 10. Encourage players to look for similarities and differences between the two versions of the game.
- Let players use a number line or manipulatives to support their addition.

Tips *from the* Trenches!

- Tie games happen a lot when playing regular tic-tac-toe with Xs and Os. Make sure players are prepared for ties during this version of the game, too. You may want to explain why one player may choose to block the other player and force a tie by writing a number in a space, even when doing so will not result in a winning sum to 10.
- Have students draw several tic-tac-toe boards in their math journals or notebooks so they can jump right into the game when they have a few spare minutes. They can record whom they played and who won next to each game board.

The Details

- Level **Grades 1–2**
- C–P–A **Abstract**
- When to Use It **Warm-Up, Conclusion, Homework**
- Time to Allow **5–10 minutes**

Plan Ahead

Each pair needs 1 die.

Connections to the **Common Core State Standards**

Content Clusters

1.OA.C, 2.OA.B Add and subtract within 20.

Math Practices

MP2 Reason abstractly and quantitatively.
MP6 Attend to precision.

Reprinted with permission from Staff Development for Educators (SDE), *Math Play: 40 Engaging Games for the Differentiated Classroom* by Eliza Sorte-Thomas (Peterborough, NH: Crystal Springs Books, 2014), page 69

Play in Pairs or Groups

2 Players

22 Tic-Tac-Ten

Objective

Be first to finish a row that sums to 10 in any direction.

Materials

One die, paper & pencil

Directions

Read directions to student players as needed.

1. One player draws a tic-tac-toe board.
2. Player 1 rolls the die and writes his rolled number somewhere on the board.
3. Player 2 rolls the die and writes her rolled number somewhere on the board. Keep in mind that the goal is to get three numbers in a row that total 10.
4. Player 1 rolls again and writes his next number on the board. Player 1 may write the number to complete a row that sums to 10 and win the game. Player 1 may instead write the number where it will block Player 2.
5. Play continues until one player completes a sum of 10 using three numbers, or until there is a tie game, with all the boxes filled but no sum of 10.
6. Players may keep playing for a certain number of games or as long as time allows. They can use tally marks to keep track of how many games each player wins.

Addition Table Mat

+	1	2	3	4	5	6
1	2	3	4	5	6	7
2	3	4	5	6	7	8
3	4	5	6	7	8	9
4	5	6	7	8	9	10
5	6	7	8	9	10	11
6	7	8	9	10	11	12

Use different color chips. Take turns rolling a pair of dice with your opponent. Cover the sum you rolled on yourmat. The winner is the first player to get three in a row, vertically, horizontally, or diagonally. If you roll a 2, and a 3, find the 2 at the top of the mat, and the 3,on the side. Find the intersection, and cover it with a chip. You could also use the 3 on the top, and the 2 on the side, but not both.

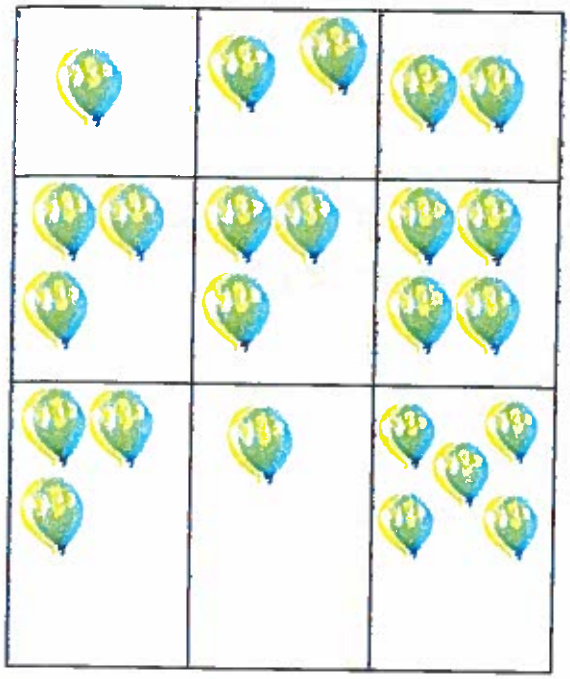
BLOCK OUT

Student looks for sets of pictures that add up to the target number on the top of the grid. Picture sets must be adjacent(share a side) to each other.

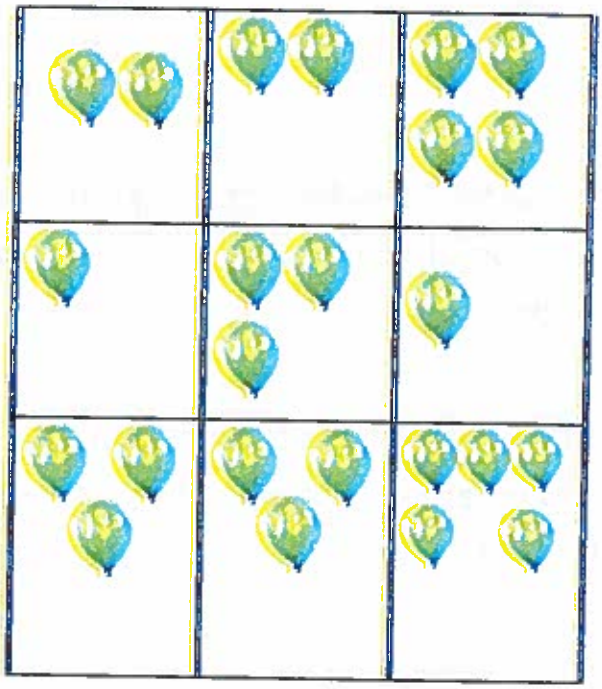
Students can use transparent tiles to cover each addition set. (Different colors help students to identify different number sets found.)

All squares in the grid must be covered to complete the problem. No squares should be left empty.

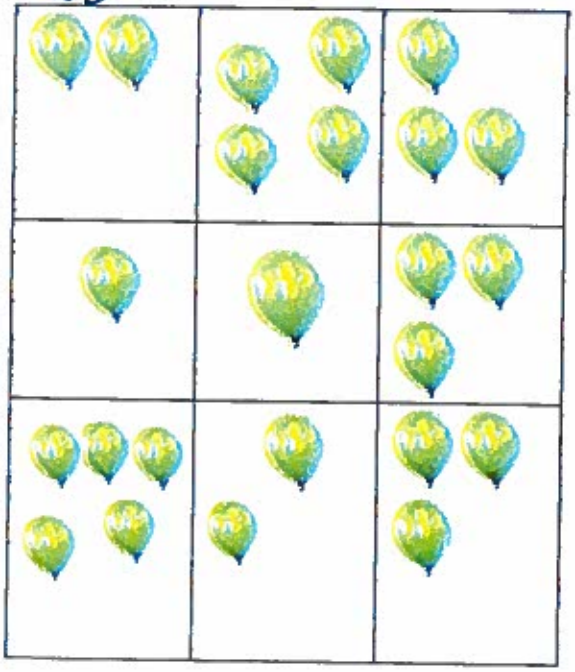
6a



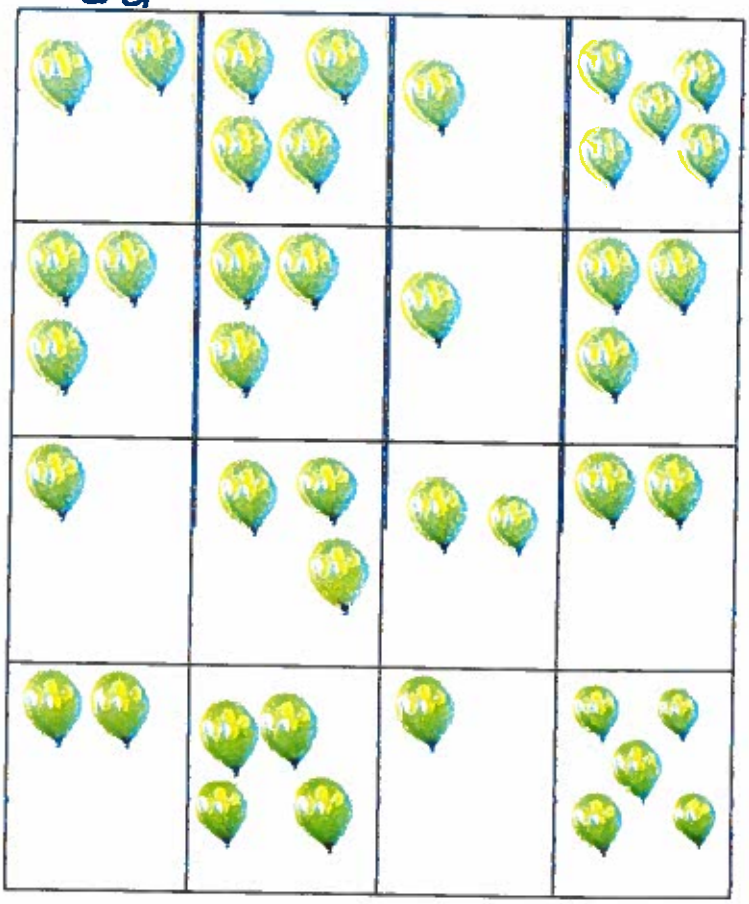
6c



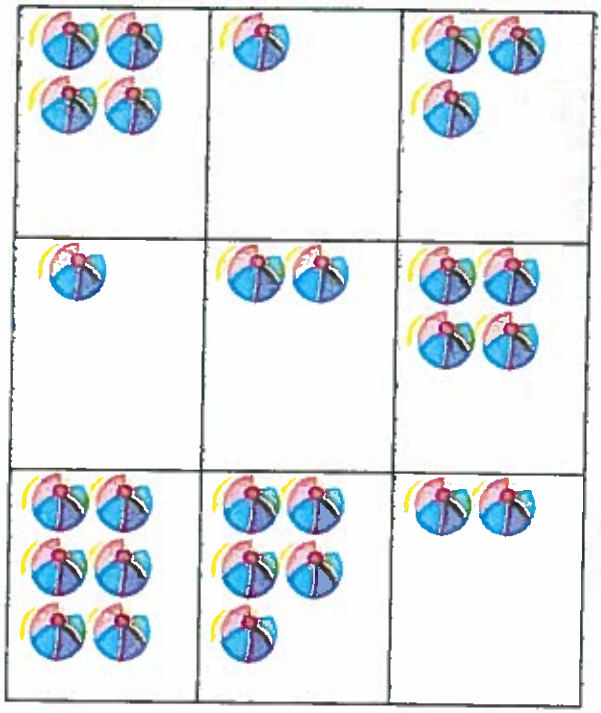
6b



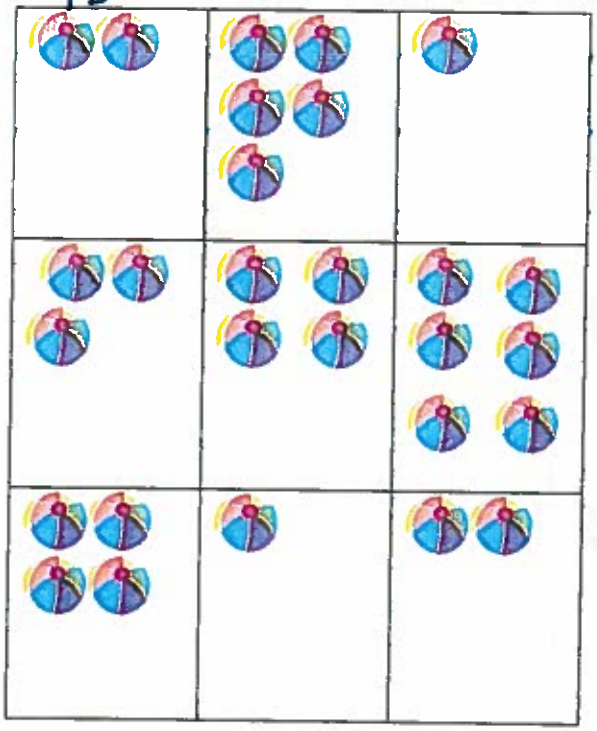
6d



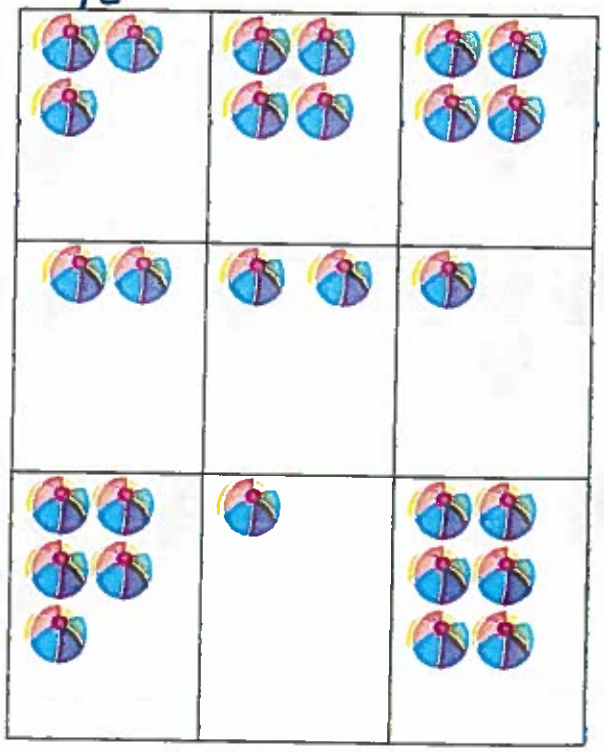
7a



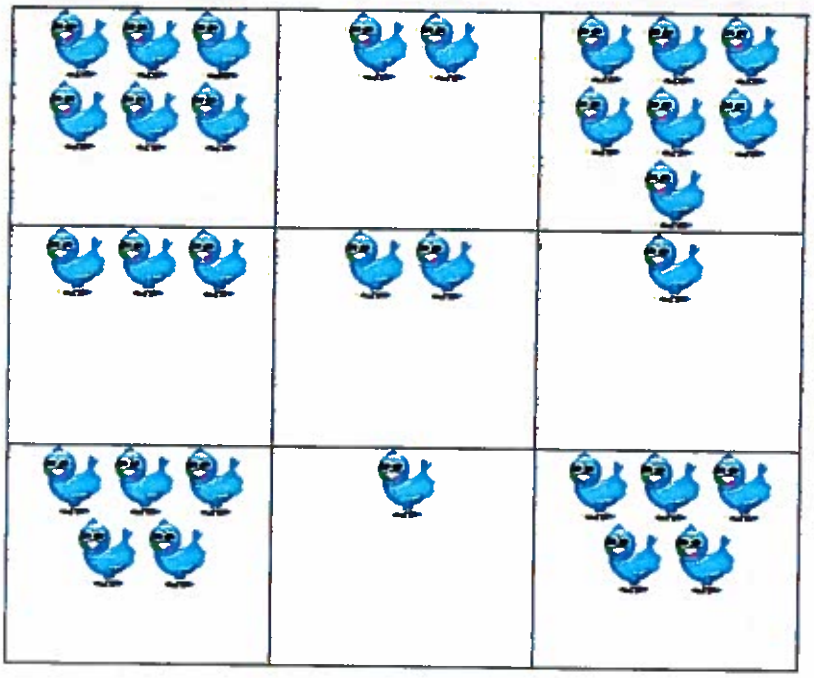
7b



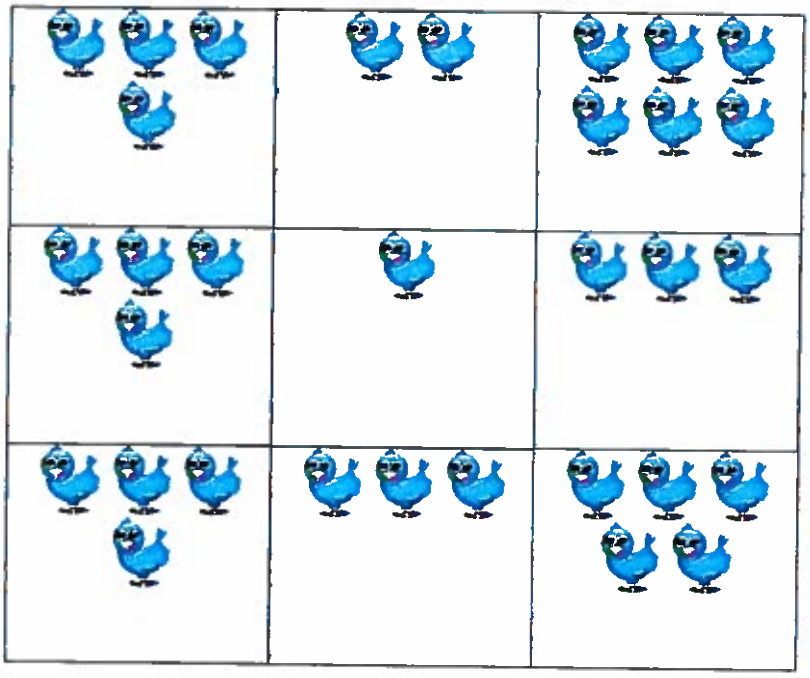
7c



8a



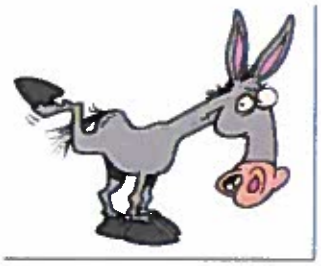
8b



20 or Out

Players: 2 players

Materials: A – 9 cards



How to Play:

- Players divide the cards evenly between themselves, keeping them face down.
- Player 1 turns over his first card. Player 2 turns over her first card, then says a number sentence that adds the two cards together. Ace equals 1. For example, if Player 1 turns over a 5 and Player 2 turns over an Ace, Player 2 says, "5 plus 1 equals 6."
- Player 1 turns over another card and says a number sentence that adds the new card to the total. Using the same example, if Player 1 turns over a 3, he says, "6 plus 3 equals 9."
- Play continues until the sum of 20 has been reached. If the sum goes over 20, the player subtracts the next card instead of adding it. For example, if the sum is 24 and a 6 comes up next, the player says, "24 minus 6 equals 18."
- The player who turns over the card that results in the exact sum of 20 wins the round. The player who wins the most rounds by the time the game ends is the winner.

Objective: Be the first player to reach the each total of 20 without going over.

Variations: Choose a target number that is greater than 20.

Save the Penguins Math Game

Object of the Game: All the penguins need to get out of the water and on to the ice before the seals get them. The first player to get all his or her penguins onto the ice wins.

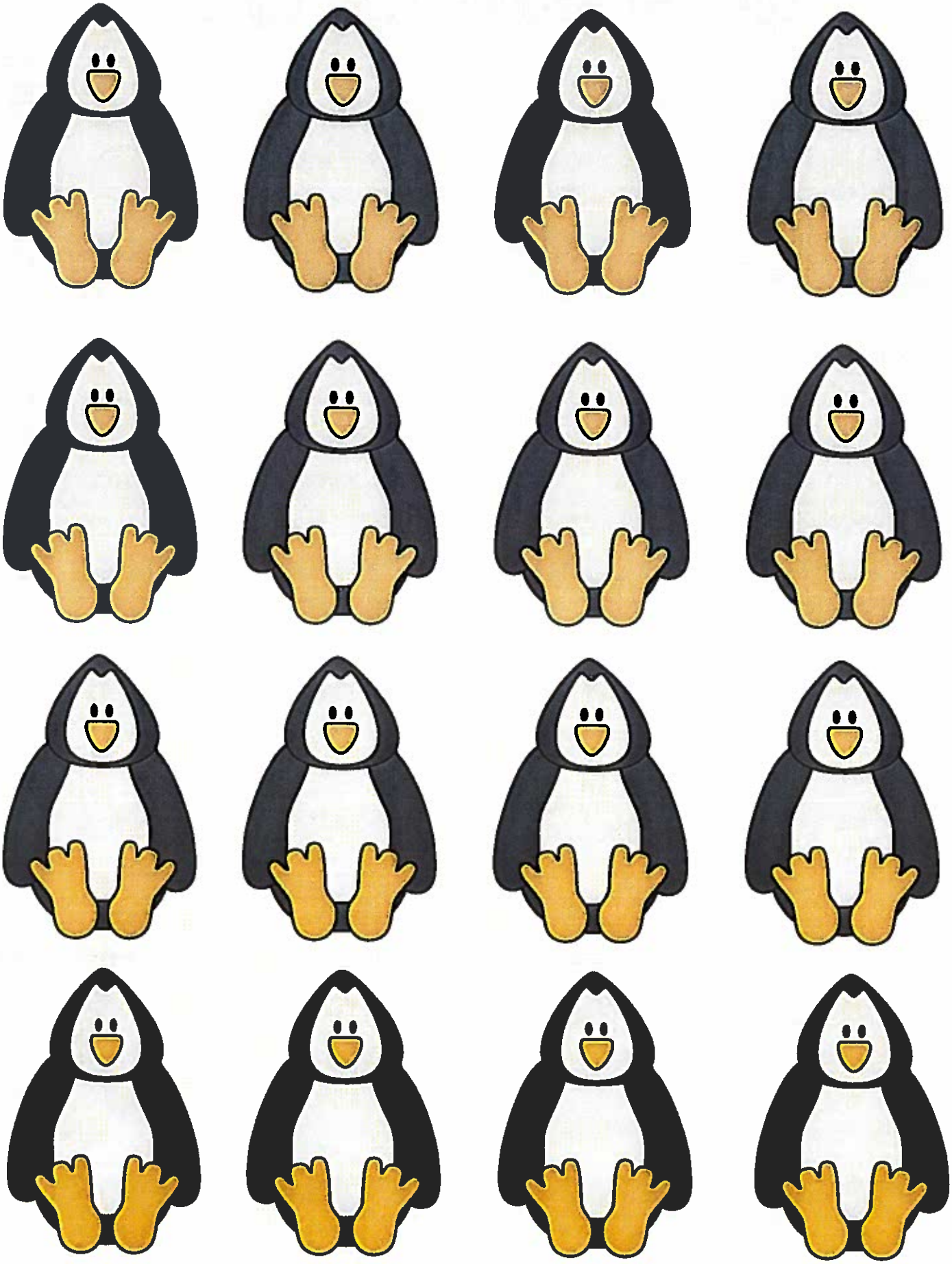
Materials: Dice, Penguin math mat, cut outs of penguins.

Directions:

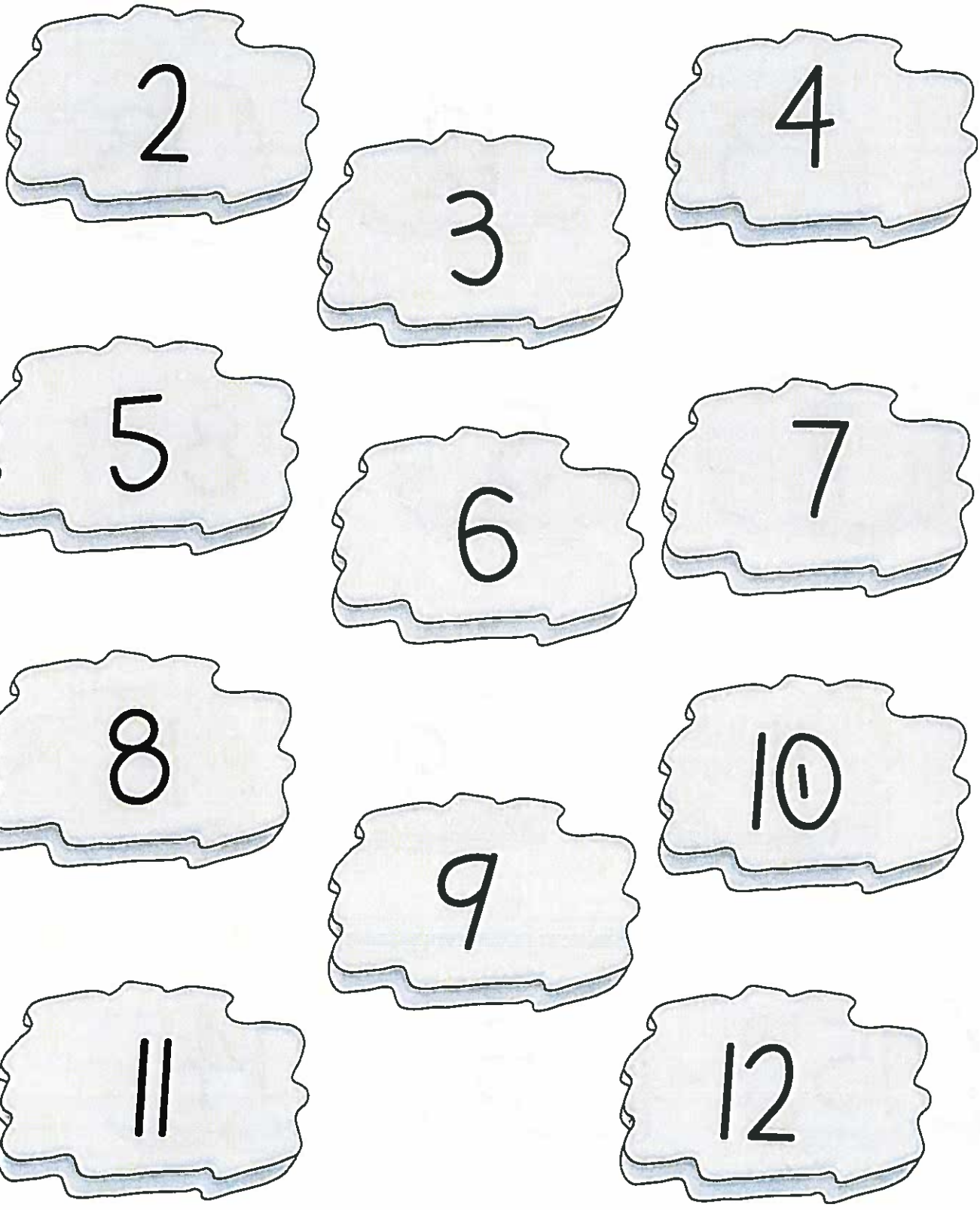
- Copy and laminate the game pieces and place them in a manila envelope.
- Each player get his or her own mat and penguins to place on each piece of "ice" as they roll the correct sum.
- The first player rolls the dice, adds them together. Then he places a penguin on the iceberg with the matching sum.
- The second player then rolls both dice, adds them together, and places a penguin on the iceberg with the matching sum.
- If there is no iceberg with that sum, it is the next player's turn.
- The first player to get all his penguins on the ice is the winner of the game.

Variations:

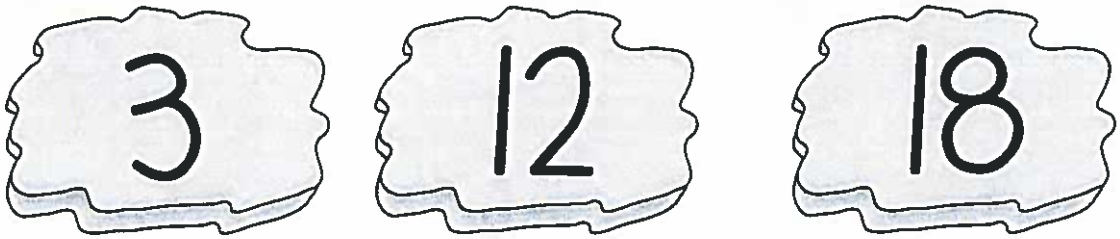
- Use three dice and add them together.
- Use one dice and find the number.
- Use two dice and subtract to find the difference.



Save the Penguins: 2 Dice Addition



Save the Penguins: 3 Dice Addition



Try to Go Home

Players: 2 Players

Materials:

- Try to Go Home Game Board
- One Counter
- Die Dot

How to Play:

- Place one counter on the center spot of the game board.
- The first player rolls the die and moves the counter toward her "Home" spot.
- The second player rolls the die and moves the same counter toward her "Home" spot.
- Play continues until a player reaches her "Home" spot.

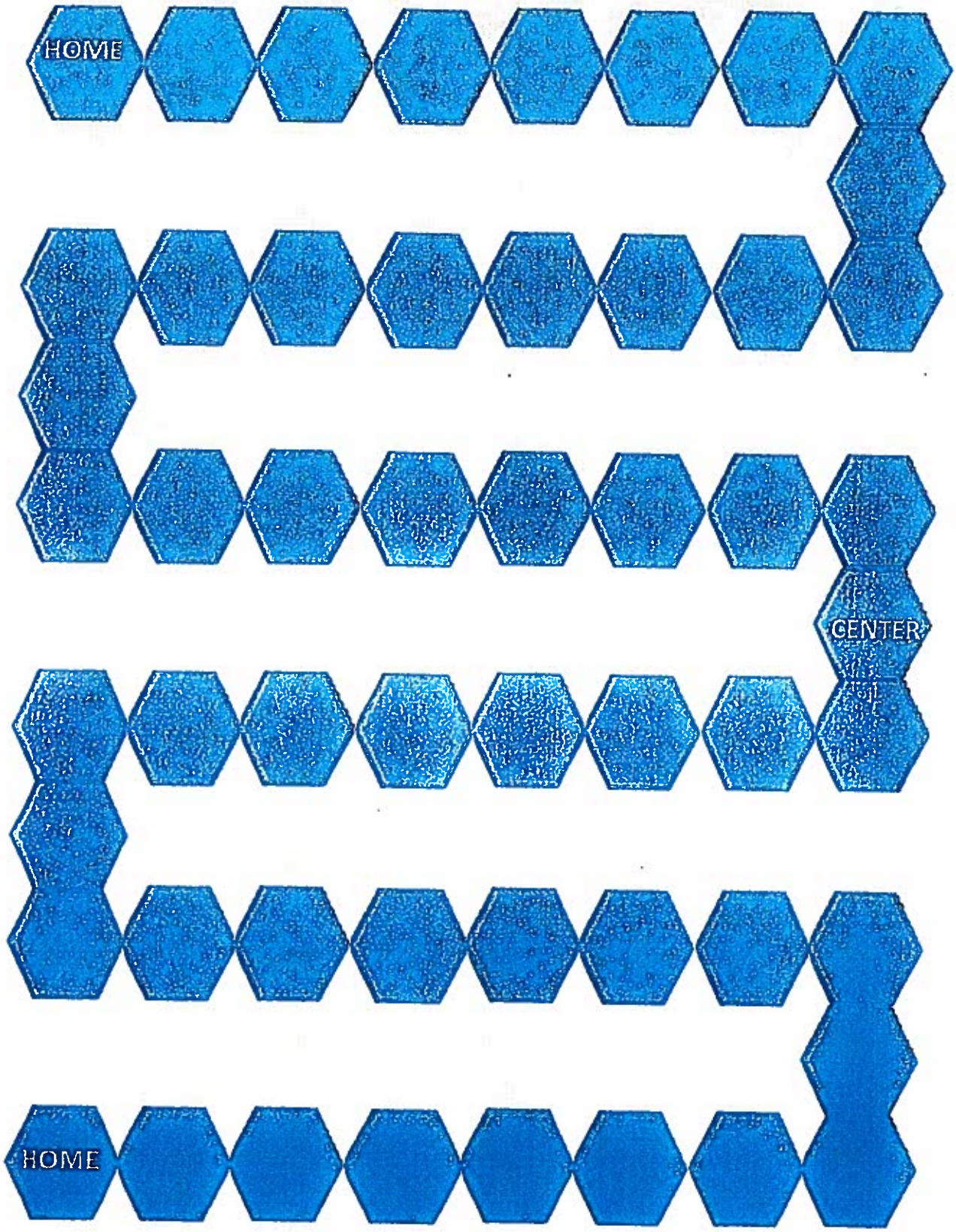
Variations:

- Make a new game board with fewer spaces. Use a die labeled with 1,1,2,2,3,3 (instead of 1,2,3,4,5,6).

- Use a larger game board with more spaces. Use two dice and find the sum.

K.CC.1,4
1.OA.6

Try To Go Home Game Board



How Many More To Make 10?

Players: 2

Materials:

Cards (Ace = 1 -9)
20 counters (two colors)
Game board

How to Play:

- Take turns turning over a card.
- Calculate how many more are needed to make a sum of 10.
- Cover that number with your counter.
- The first person to get three in a row wins.

How Many More To Make 10?

2	6	9	1
8	4	5	4
3	2	1	5
7	5	6	8
1	9	7	3

How Many More To Make 20?

Players: 2

Materials:

Cards (Ace = 1 -9)
20 counters (two colors)
Game board

How to Play:

- Players take turns turning over two cards.
- The numbers are added together; then the player calculates how many more to make 20.
- Cover that number with your counter.
- The first person to get three in a row wins.

1.OA.6
2.OA.2

How Many More To Make 20?

12	16	10	9
8	4	5	14
3	2	11	5
17	15	6	18
11	9	7	13

War Games

Players: 2

Materials: Cards Ace (= 1) - 9 or Ace - 5, depending on grade level

Object: To get the highest sum and collect all of the cards

Getting Started: Players divide all of the cards evenly. Each player turns over two cards and adds them together. The highest sum gets all the cards. In the event of a tie WAR is declared. Each player deals out two more cards face down and then turns over two more cards. These two cards are added together. The highest sum wins all of the cards. Play continues until one player has collected all of the cards.

Variations: Players can subtract their cards instead of adding. Player with the smallest number wins. Play continues until one player has all the cards.

Players can multiply their cards instead of adding. Player with the largest product wins. Play continues until one player has all the cards.

Players can do integer operations with red cards as negative and black cards as positive.

*Adapted from Shuffling Into Math, Volume 1.

1.OA.6 2.OA.2 3.OA.7
4.OA.3 5.OA.1,2 3.NBT.2

Addition Snap

Players: 2 of equal ability

Materials: Deck of cards with numbers 2-9 and the Aces which are 1

Object: To recall addition facts to 18 quickly

How to Play: Players divide the cards evenly between themselves. Next, each player turns over a card at the same time. Players add the two together as quickly as possible and say the sum out loud. The player who gives the correct answer first collects both cards. Play continues until one player collects all of the cards. In the event of a tie, players leave their cards down and let the pile build. Play resumes until one player gives a correct sum before the other and takes all of the accumulated cards.

1.OA.6
2.OA.2

*Used by permission from the book All Hands on Deck by Box Cars and One-Eyed Jacks

Even or Odd

Players: 2

Materials: Cards Ace = 1 through 10

Object: To get the most cards

Getting Started: Deal out all of the cards. Players decide who will be 'odd' and who will be 'even'. Each player turns over one card. If the sum of the cards is odd, the 'odd' player gets the cards. If the sum of the cards is even, the 'even' player gets the cards. The game continues until one player has no cards.

Variation: Find the difference of the values on the cards.

Find the product of the values on the cards.

2.OA.3
1.OA.6

*Adapted from Critical Thinking Press, 1994

Two in One Bingo

This is a variation of the classic game, Bingo. In this version, two players play on one board. Give each player a handful of chips, and be sure that each player has a different color.

The players alternate rolling a pair of dice. After each roll, they subtract the dice, and place a chip on the answer on the game board below. If a player rolls a difference, and the answer has already been covered, the player removes the opponent's chip, and replaces it with his own chip. If a player lands on his own chip, the player waits for the next turn. If a player rolls a difference, and two numbers representing the answer are on the board, cover **only one**.

0	1	2	3
4	5	0	1
2	3	4	5
0	1	2	3

The first player to get four in a row vertically, horizontally or diagonally wins.

Tenner

Objectives

addition facts with sums of ten
addition with three or more addends
algebraic reasoning
counting by tens

Materials

deck of playing cards

Procedure:

You will need a deck of playing cards. The ace is one, the face cards are worth ten points, and all other cards carry their numerical values. **Tenner** can be played with a small group of two to three players. Shuffle the deck, and place it face down between the players. The players take turns selecting a card from the top of the face down deck. If a player collects a ten, or any combinations of cards that yield a sum of ten, he keeps the cards as winnings.

Player One draws first. If he draws a ten, he keeps it, and draws again. Players will always draw again if they are able to make a combination of ten with the cards they draw. If Player One does not draw a ten, he places it face up on the table for Player Two. Let's suppose that Player One draws a four. In this case, he would place the four face up on the table for Player Two's draw. If Player Two draws a six, he would collect the four, and six together as winnings, because $4 + 6 = 10$. If, on the other hand, Player Two drew a three instead of a six, he would place that on the table, and yield his turn to the next player. Be sure to separate the cards as they can become active for future draws. Go through the entire deck. The player with the most cards wins.

Variation:

To practice counting by 10, count the cards won by ten instead of by ones

Name ____________

Unlucky Seven

Roll 2 dice. Add the numbers. Cross out the top sum on the chart. If it is crossed out on the top row, move down the rows. The winner is the first player to be able to cross out the numbers 2 - 12 in the first row without crossing out all seven 7s. If a player covers all seven 7s before crossing out 2 - 12, the game is over.

2	3	4	5	6	7	8	9	10	11	12
2	3	4	5	6	7	8	9	10	11	12
2	3	4	5	6	7	8	9	10	11	12
2	3	4	5	6	7	8	9	10	11	12
2	3	4	5	6	7	8	9	10	11	12
2	3	4	5	6	7	8	9	10	11	12
2	3	4	5	6	7	8	9	10	11	12

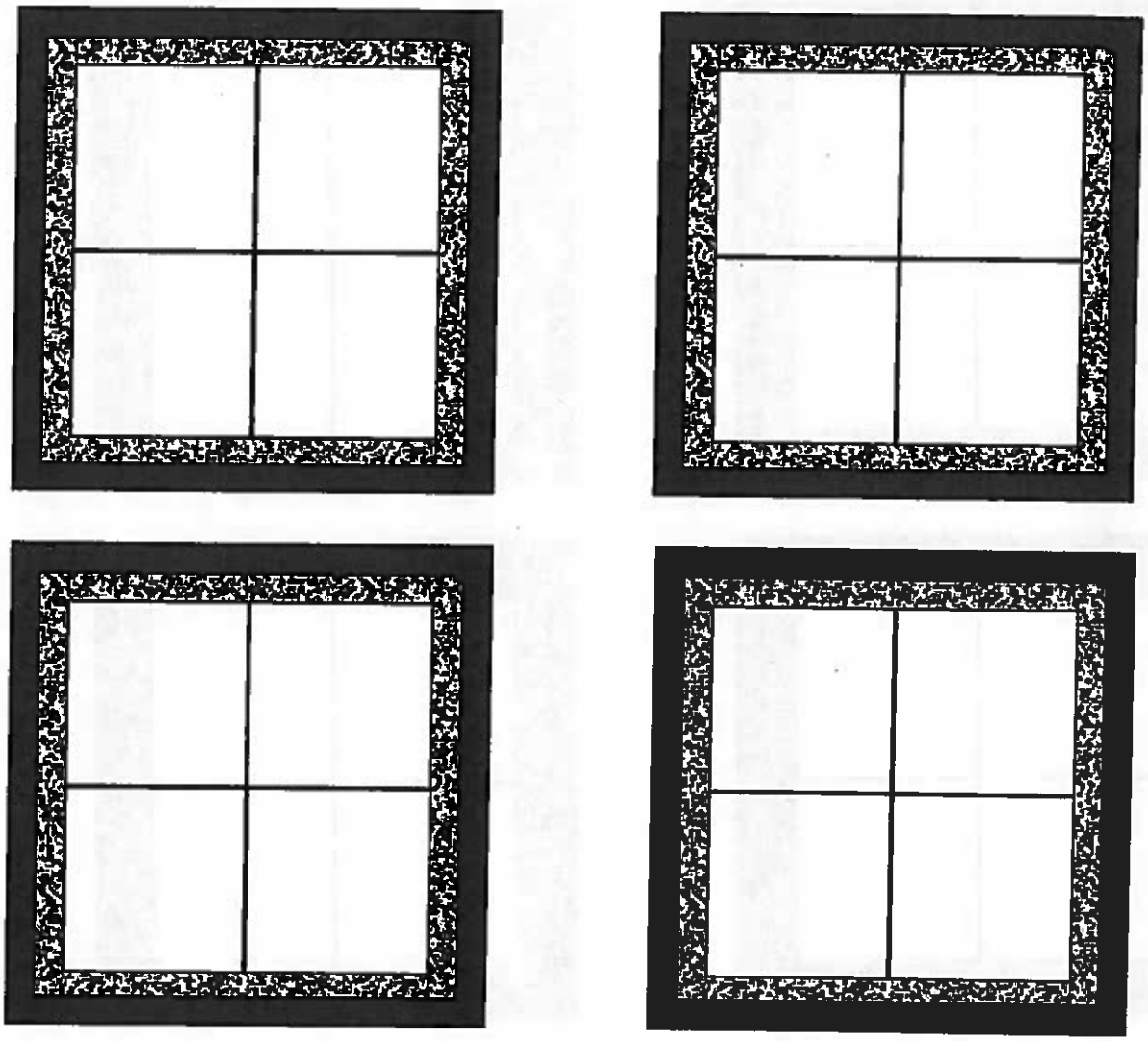
Name ____________________

Unlucky Seven

Roll 2 dice. Add the numbers. Cross out the top sum on the chart. If it is crossed out on the top row, move down the rows. The winner is the first player to be able to cross out the numbers 2 - 12 in the first row without crossing out all seven 7s. If a player covers all seven 7s before crossing out 2 - 12, the game is over.

2	3	4	5	6	7	8	9	10	11	12
2	3	4	5	6	7	8	9	10	11	12
2	3	4	5	6	7	8	9	10	11	12
2	3	4	5	6	7	8	9	10	11	12
2	3	4	5	6	7	8	9	10	11	12
2	3	4	5	6	7	8	9	10	11	12
2	3	4	5	6	7	8	9	10	11	12

SQUARE OFF

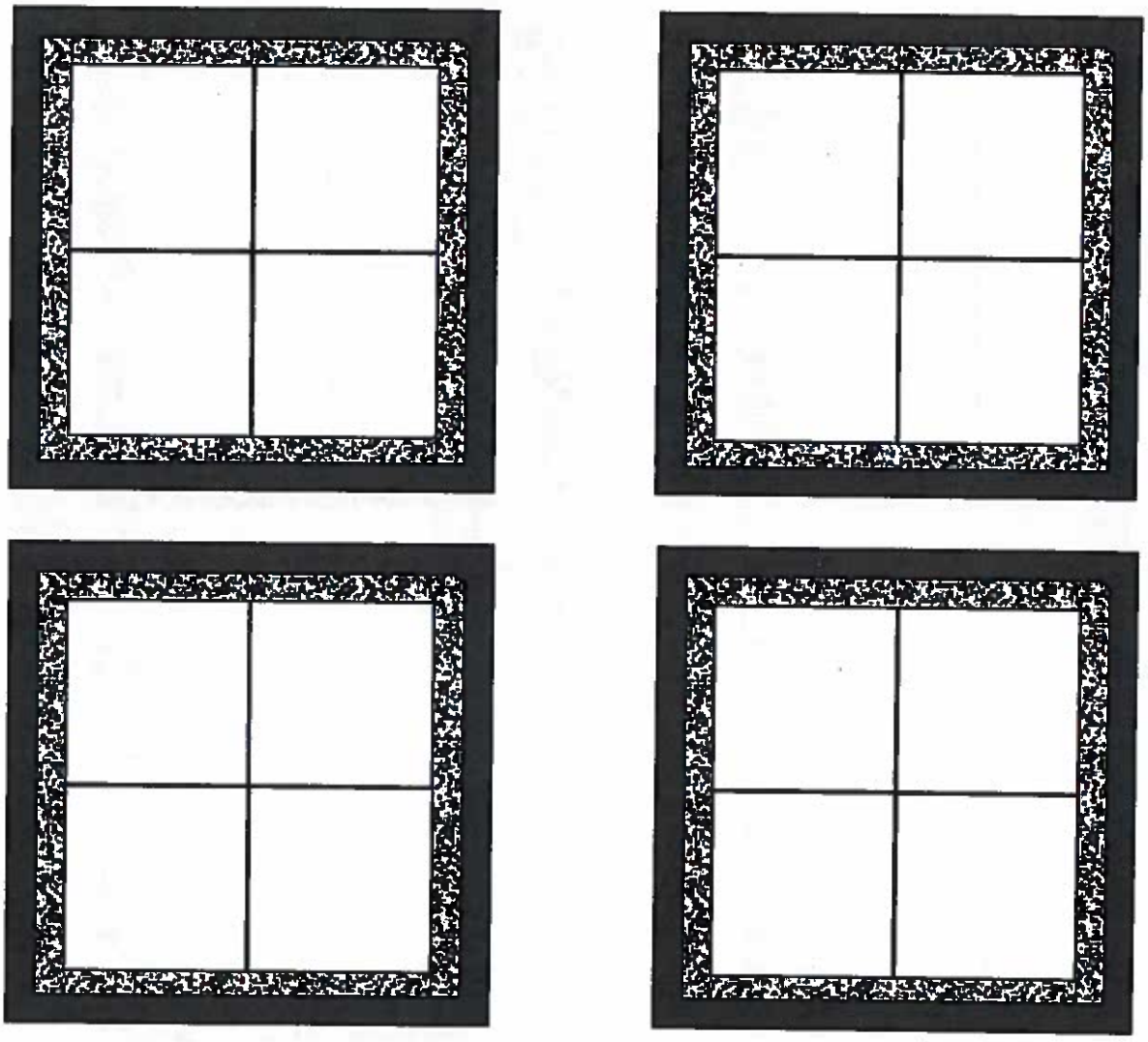


This game is best played in a small group, but it could be used with an entire class. Give each player a die, and the four game boards shown above. Roll the die, and record the number rolled in one of the sixteen boxes. Roll sixteen times in all. **Once a number has been recorded in a box, it may not be** moved. After all sixteen boxes have been filled, add the four boxes in any of the four squares. If you have a total of twelve in a square using all four boxes in that square, you win a point. Score four points if all four squares have sums of twelve, three points for three squares of twelve, two points for two squares, and one point for one square.

addition with several addends, and algebraic reasoning

appropriate grades 1 - 6

SQUARE OFF



This game is best played in a small group, but it could be used with an entire class. Give each player a die, and the four game boards shown above. Roll the die, and record the number rolled in one of the sixteen boxes. Roll sixteen times in all. **Once a number has been recorded in a box, it may not be** moved. After all sixteen boxes have been filled, add the four boxes in any of the four squares. If you have a total of twelve in a square using all four boxes in that square, you win a point. Score four points if all four squares have sums of twelve, three points for three squares of twelve, two points for two squares, and one point for one square.

addition with several addends, and algebraic reasoning

appropriate grades 1 - 6

Yahtzee

Players: small group

Materials: 2 10 sided dice

How to Play:

- Students take turns rolling the dice and crossing off the sum. The first player to fill their sheet is the winner.
- Instead of having the students cross off the sum, have them write the number in words for extra writing practice.

1.OA.6

Name _____

Yahtzee

Using 10-Sided Dice

0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	

Name _____

Yahtzee

Using 10-Sided Dice

0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	

Name _____

Yahtzee

Using 10-Sided Dice

0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	

Name _____

Yahtzee

Using 10-Sided Dice

0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	

Addition Bump

Players are each given ten markers. Players take turns rolling two dice and finding the sum. A marker is placed on the sum. If an opponent's marker is already on the sum, the player can bump them and take their spot. If the player's own marker is on the sum, they can stack another marker on top and lock the spot so that they cannot be bumped in the future. The winner is the partner that uses all ten of their markers first.

6 8 11 7

2 9 3 5 4 10 12

SAFARI BUMP

6

17

4

12

18

11

13

14

8

16

3

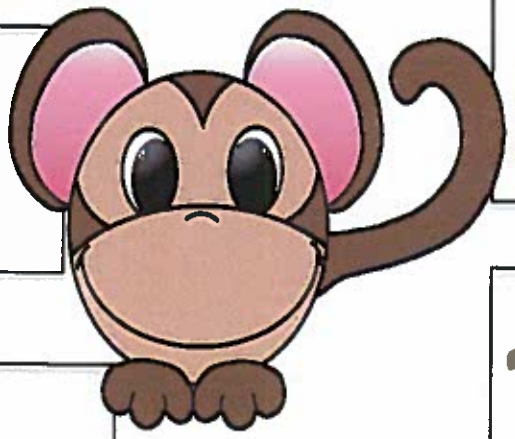
10

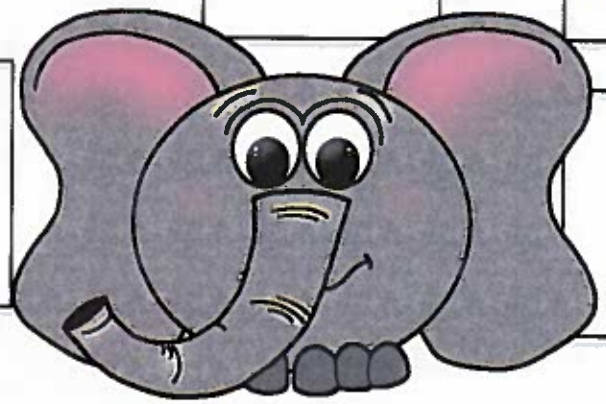
15

9

5

7





Directions: Each player gets 10 cubes of same color. The other player gets a different color. Roll 3 dice and add up the numbers. Place a cube on that sum. Another player can bump them off if they get the same sum. However, if a player rolls that sum twice they can lock it with two of their cubes and they can't be bumped. First player to use all 10 cubes is the winner.

Ninja Box Addition Bump

5	10	7		9
	18	3	17	15
12	6	14	4	7
13		12	8	16
14	11		18	3

How to play: Roll three number cubes and add those numbers. Cover that space with your marker. You can bump your partner's color and take their space! If you cover a space with two markers stacked on top of each other, you lock that space and it can't be bumped. The player to use all ten of their markers first is the winner!

addition & subtraction "Bow Wow" Bump

Roll two dice and add the two numbers together. Subtract the sum of the two numbers from 20. Cover your answer on the game board. Players may bump one another off of the game board. When no more dogs can be covered, the player with the most numbers covered wins!

Welcome Back Bump

More: A Game of Differences

Players: Two Players

Materials:

- Number cards 1 - 10 (four of each) or Ace – 9 or Ace – 10 cards
- Counters

How to Play:

- The cards are shuffled and put facedown in a stack. Each player turns over one card. Players decide who has the greater number, and then figure out how much "more" that player has. The player who has "more" takes the quantity of counters that equals the difference between the two players' numbers.

Example:

- Player 1 turns over a 3. Player 2 turns over a 9. Player 2 has the greater number, which is 6 more than Player 1's, so Player 2 takes 6 counters.

- Play continues until all the cards have been drawn. Players count their counters, and the player with more counters wins the game.

Variations:

- Each player turns over two cards and makes the greatest two-digit number possible. The players then determine who has the greater number, and using pencil and paper, figure out the difference between the two numbers. The player who has "more" gives himself points equal to the difference between the two numbers. When all the cards in the facedown stack are gone, the player with more points wins the game.

Example:

- Player 1 draws a 6 and 7, and makes 76. Player 2 draws a 1 and a 3, and makes 31. Player 1 has the greater number, in this case, 45 more, so Player 1 scores 45 points for this round.

1.OA.6 2.OA.2 2.NBT.5

*Adapted from No Nonsense Number Sense Presented by Latrenda Knighten, NCTM Annual 2015

One Less

Players: Two Players

Materials: Number cards 1 – 10 (four of each)

How to Play:

- Players sit side by side. The cards are shuffled and placed facedown in a stack.
- Player 1 takes ten cards and places them faceup in a line between both players.
- Player 1 looks for two cards with a difference of one. When he finds two such cards, he says, "I can take these cards because _____ is one less than _____."
- Player 2 adds two more cards to the faceup line. (The line always has ten cards.) She hunts for two cards with a difference of one.
- If there are no cards in the line with a difference of one, another card is added to the line.
- Players alternate turns until all the facedown cards have been added to the line and all possible "one-less" combinations have been made.

Objective: The goal of this game is to find two cards where the number on one card is one less than the number on the other card.

Variations: "Two Less" and "Three Less" are played in a similar manner.

Note: Counters or a 0 to 10 number line might be very helpful so that children can visualize what they are being asked to do.

0	1	2	3	4	5	6	7	8	9	10

*Adapted from Mastering Basic Math Skills: Games for Kindergarten through Second Grade by Bonnie Adama Britt 1.OA.6; 2.OA.2

Clear the Board

2	3	4	5	6	7	8	9	10	11	12

Play with a partner or small group. Each child has a board and 10 cubes. Place the cubes on the board above the numbers. You can place more than one cube above a number. The player rolls 2 dice and adds the dice together. If there is a cube above that sum. the player takes one cube off that sum. Whoever clears his/her board first. wins.

1.OA.6

Forty

Players: 1 – 2 players

Materials: A – 10 Cards

How to Play:

- Place the cards face up before the players. Player one looks for two or more cards which make a sum of 20. He removes the cards, and passes his turn to player two.

- Player two now searches for two or more cards with a sum of 19, and removes the cards from the table. The players alternate turns removing descending sums as they play until one of the players cannot find a sum. This player is the loser.

Variations:

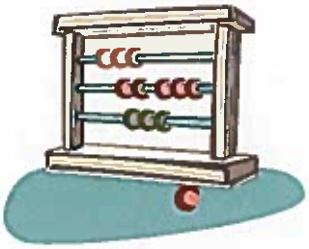
Consider playing as a solitary player. Continue removing sums in descending order until you cannot find the sum you need. Count the cards you have collected. This is your game score.

1.OA.6

2.OA.2

*Adapted from Math Matters, August 2014

Three for Fifteen



Players: 2 – 4 players

Materials: Full deck

How to Play:

- Deal an entire deck of cards equally to all of the players. Ace is one, face cards are ten, and all other cards carry their numerical values.
- Each player examines his hand, and creates as many three card combinations with sums of fifteen he can find.
- He sets the three card combination aside as a book of fifteen.
- The player forming the most books wins.

Variations:

- Play for a variety of sums from 10-15. Increase the difficulty, and play four cards for 18.

1.OA.6
2.OA.2

*Adapted from Math Matters, November 2014

The Three Dice Game

Players: Two players

Materials:

- Three dice
- One crayon for each player
- "The Three Dice Game" game board for each player

How to Play:

- Player 1 rolls the three dice and adds the numbers together. He colors each block in which the sum of the dice appears.

Example

- Player 1 rolls a 6, 4, and a 3. He adds 6 + 4 + 3 = 13. He colors all of the 13s on the game board if they have not already been colored.

- Player 2 rolls the dice and proceeds in the same manner.

- The winner is the first player to completely color in any row or column.

*Adapted from Mastering Basic Math Skills, B. Britt, 2014. 1.OA.6; 2.OA.2.

The Three Dice Game Board

13	5	14	12	2	17	17	12	12	16
16	20	19	9	9	9	9	9	9	9
8	12	10	6	12	14	12	14	12	16
16	8	1	11	3	13	15	2	17	4
11	13	19	10	11	3	13	10	15	13
19	11	5	12	15	14	3	18	6	18
14	12	10	8	8	12	12	10	5	9
7	6	11	12	8	7	11	18	12	11
7	10	4	20	6	12	14	15	1	10
7	20	10	10	13	12	10	4	14	10

The Three Dice Game Board

13	5	14	12	2	17	17	12	12	16
16	20	19	9	9	9	9	9	9	9
8	12	10	6	12	14	12	14	12	16
16	8	1	11	3	13	15	2	17	4
11	13	19	10	11	3	13	10	15	13
19	11	5	12	15	14	3	18	6	18
14	12	10	8	8	12	12	10	5	9
7	6	11	12	8	7	11	18	12	11
7	10	4	20	6	12	14	15	1	10
7	20	10	10	13	12	10	4	14	10

Domino War

Players: 2 players

Materials: Dominoes

How to Play:

- Deal out all of the dominoes and ask each player to keep their dominoes face down.
- Ask each player to choose one domino and flip it face up in front of them.
- Each player must add up the two sides of their domino to get the total. Whoever has the highest number wins both dominoes.
- If both players have the same total number, for example, if Player 1 flips over a 3/4 Domino and Player 2 flips over a 5/2 Domino (both equal 7), This is called "War" occurs, both players my choose a second domino, flip it face up, add up the total number, and whoever has the higher number wins all four dominoes.
- When one player loses all their dominoes, they are out of the game. Whoever holds all the dominoes at the end of the game is the winner.

1.OA.6

*Adapted from NCTM presentation, Daniel Schroll, 2014

Domino Dice Match

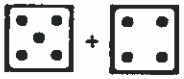
Players: 2 players

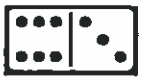
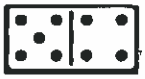
Materials: One set of Dominoes ( and  removed), one gameboard, 2 regular dice.

How to Play:

- Dominoes are placed face down and shuffled. Each player draws five dominoes and places them face up onto their gameboard. Players now take turns rolling the dice and finding the sum. Player can remove a domino on their roll.

- Any domino can be removed as long as the sum is equal to the roll.

- Roll  = 9

- Players could remove  or  , if it is on their side of the gameboard.

- Only one domino can be removed per turn per player.

*Adapted from Domino Math Games, 2010. 1.OA.7