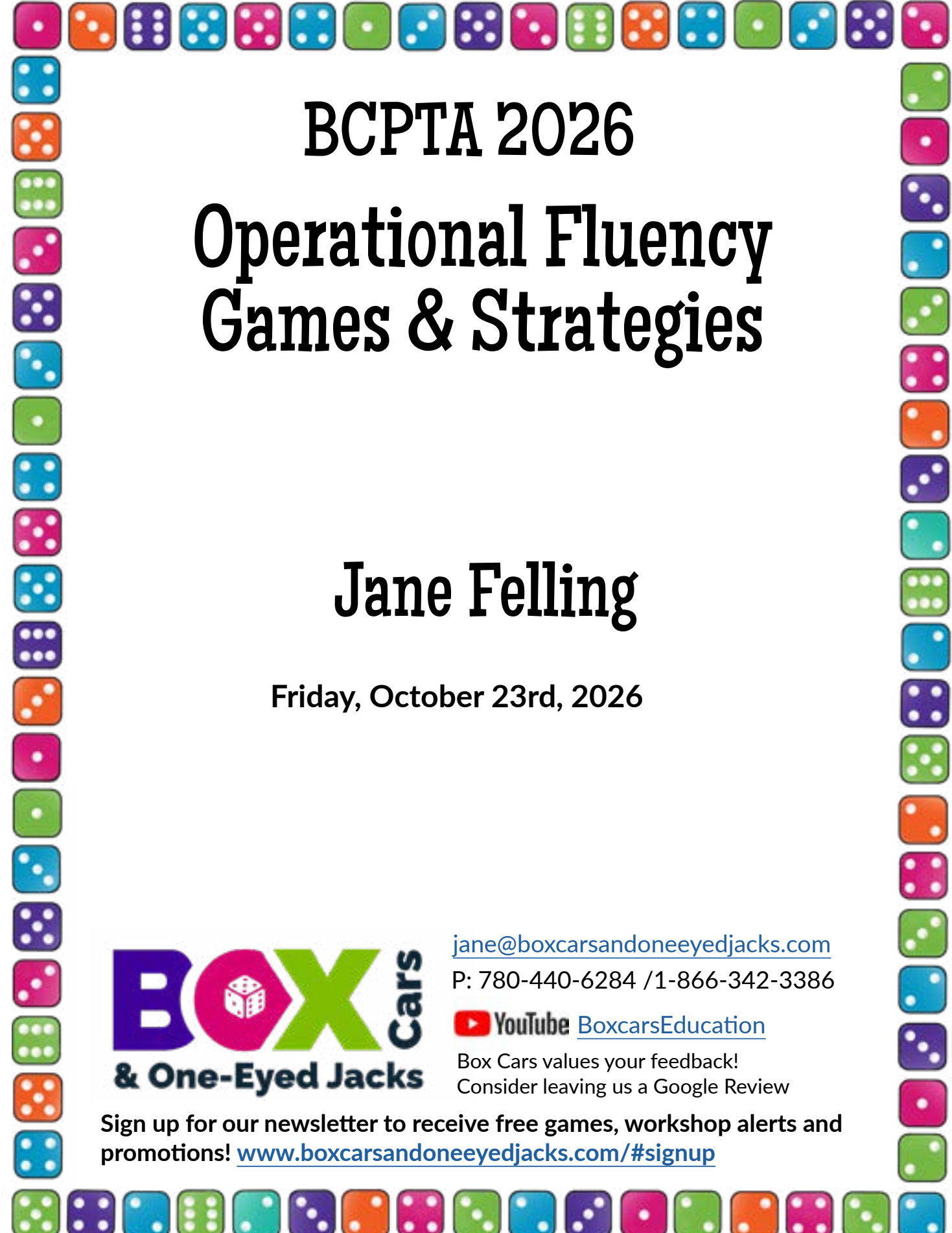




# BCPTA 2026

# Operational Fluency Games & Strategies

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Friday, October 23rd, 2026



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# ADDITION FACE OFF

**LEVEL:** Grade 1

**SKILLS:** solve and add within 10, understand addition as putting together and adding to, fact families

**PLAYERS:** 2

**EQUIPMENT:** cards (Ace=1) - 5

**GOAL:** to have the greatest sum of two cards

**GETTING STARTED:** Players divide cards evenly between themselves. Each player turns over two cards and adds them together. The greatest sum gets all of the cards. In the event of a tie (ie. each player has the same sum), FACE OFF is declared. Each player deals out three more cards face down and then turns over two more cards. These two cards are added together. The greatest sum wins all of the cards. Play continues until one player has collected all of the cards.

## EXAMPLE:

PLAYER ONE



$$2 + 3 = 5$$

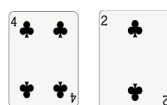
PLAYER TWO



$$4 + 1 = 5$$

**FACE OFF IS  
DECLARED**

PLAYER ONE

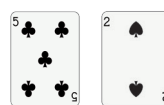


$$4 + 2 = 6$$

PLAYER TWO



“TIE BREAK”

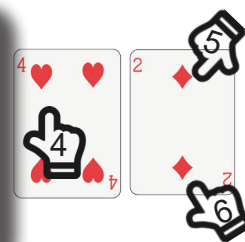


$$5 + 2 = 7$$

Player 2 collects all of the cards.

**MATH  
TALK**

Students who are having difficulty adding the numbers can use the strategy of using the symbols on the cards (ie. hearts, spades, diamonds or clubs) to count on from the higher numbered card. For example, if a 4 of hearts and 2 of diamonds are turned over, students start at 4, saying “4” and then touch the symbols on the second card counting on “5”, “6”.



## VARIATIONS:

1. Increase the value of cards used : (Ace=1) - 6 for addition to 12 ; (Ace=1) - 9 for addition to 18.
2. Divide cards evenly between two players. Each player turns over two cards, creates a two-digit number and verbalizes the number. Players each turn over a third card and add it to their two-digit number. The player with the greater number wins all the cards.

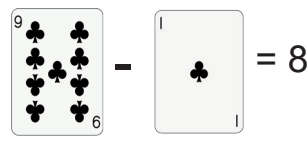
# SUBTRACTION FACE OFF

- LEVEL:** Grade 1
- SKILLS:** understand subtraction as taking from and the difference between two numbers.
- PLAYERS:** 2
- EQUIPMENT:** cards (Ace=1) - 10, recording sheet (page 51)
- GOAL:** to have the least difference and collect the most cards

**GETTING STARTED:** Players divide cards evenly between themselves. Each player turns over two cards and subtracts the lesser number from the larger number. The player with the least difference (answer) wins all four cards. In the event of a tie (ie. both players have the same answer), a face off is declared. Each player deals out three more cards face down, and then turns over two more cards. See Addition Face Off on page 36 for picture. Subtraction is performed. The player with the least difference wins all of the cards. Play continues until one player has collected all of the cards.

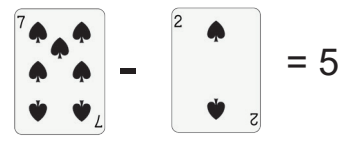
**EXAMPLE:**

PLAYER ONE



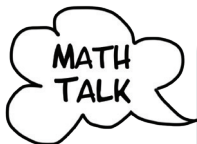
$9 - 1 = 8$

PLAYER TWO



$7 - 2 = 5$

Player Two collects all four cards and verbalizes “5 is a lesser difference than 8”



Have the students verbalize their answer out loud and which is least rather than just take the cards when they win. It is always a good habit to ask the question, “How do you know?” as their response really does say a lot about their understanding of number concepts. Use subtraction mats to help students organize their subtraction sentences. Provide counters if necessary.

## JOURNAL WORK AND EXTENSIONS:

1. See teaching notes on page 18 for ways to use cards to teach subtraction.
2. When ready, have students record their math sentences, using Horse Race Subtraction Recording Sheet on page 51.

## VARIATION:

1. Divide cards evenly between two players. Each player turns over two cards, creates a two-digit number and verbalizes the number. Players each turn over a third card and subtracts it from their two-digit number. Players may need counters to help them determine their answer. The player with the lesser number wins all the cards.

# SALUTE

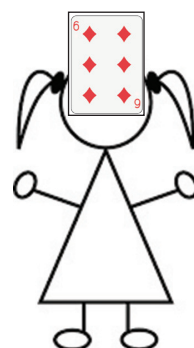
|                   |                                                      |
|-------------------|------------------------------------------------------|
| <b>LEVEL:</b>     | Grade 1-2                                            |
| <b>SKILLS:</b>    | missing addend, problem solving (for missing factor) |
| <b>PLAYERS:</b>   | 3 cooperative - 1 general/referee, 2 players         |
| <b>EQUIPMENT:</b> | cards (Ace=1) - 12 (Jack =11, Queen=12, King=0)      |
| <b>GOAL:</b>      | to identify the missing addend (card) on your head   |

**GETTING STARTED:** One player is designated as the "General" and will be providing the SALUTE signal and calling the sums for players. The other two players divide the cards and place them face down. The General calls "SALUTE!" and both players take a card from the top of the deck and, without looking at it, place it on top of their heads so that the other player can see it. The general must add the two cards and call the sum out loud.

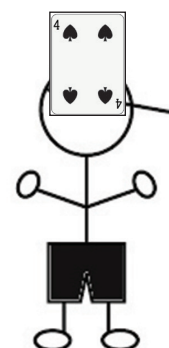
## EXAMPLE:

Players "Salute" - both players draw a card and place on their heads. The General says "Your sum equals 10, what's on your head?"

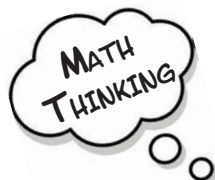
The players then use the SUM and the number on the card they can see on the other player's head to try and figure out their own card.



PLAYER ONE



PLAYER TWO



Player One "The sum is 10, I see 4.  $10 - 4 = 6$ , I think 6 is on my head."

Player Two "The sum is 10. I see 6. I am going to count on from 6...7-8-9-10. I had to count on 4 more, I must have a 4.  $6 + 4 = 10$ ."

Players should let the group know the strategy they used to figure out the number on their head.

The General calls "Salute" again, and without looking, both players draw a new card and place them on their heads. The General says the sum out loud and players again try to figure out their card value. Have players change roles so that each will have a chance to be the General.

## JOURNAL WORK AND EXTENSIONS:

1. After practicing several rounds have students complete the Salute Recording Sheet (see page 68).
2. Have students describe three strategies they could use to figure out their number. They can write or illustrate their answers.
3. Use the skills checklist found on page 69 to help you assess student's understanding.

# HORSE RACE

Each player takes 18 dice of own color.

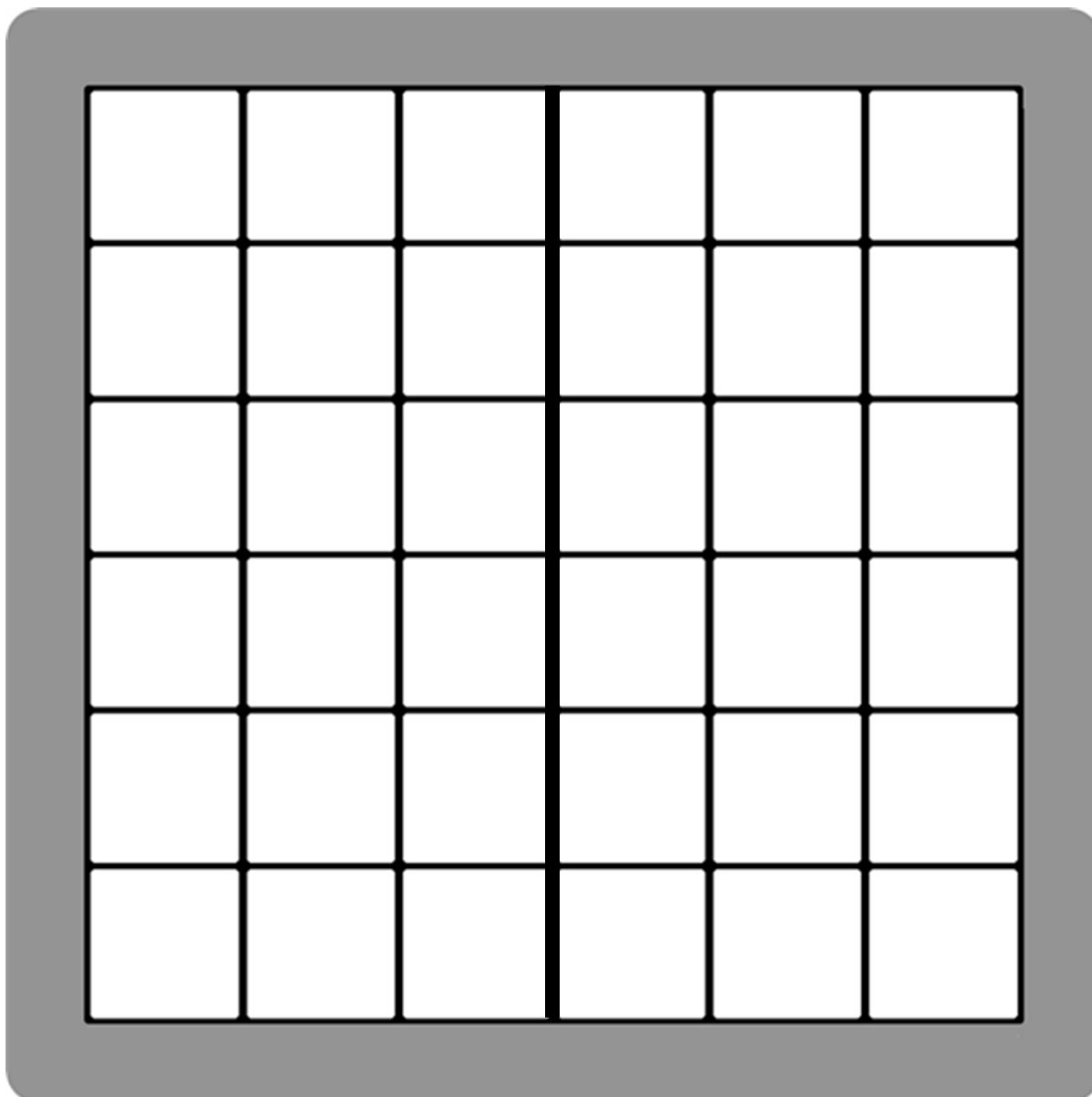
Each player rolls two dice and adds.

Player with the greatest sum places them into their side of the tray, least sum places in lid.

Player with the most dice on their side of the tray at the end of the game wins.

**PLAYER  
ONE**

**PLAYER  
TWO**



## WARP 18

- ▶ Explore Associative Property of Addition.
- ▶ Each player takes 18 dice of their own color.
- ▶ Each player rolls 3 dice and adds.
- ▶ Player with the greatest sum places them into their side of the tray, least sum places in lid.
- ▶ Players need to verbalize how they calculated sums.
- ▶ Player with the most dice in their side of the tray at the end of the game wins.

# SUBTRACTION HORSE RACE

**LEVEL:** Kindergarten - Grade 1

**SKILLS:** understanding subtraction as taking apart and taking from within 6

**PLAYERS:** 2 (1 vs 1)

**EQUIPMENT:** 2 colors of dice (20 total), gameboard, recording sheet, snap cubes

**GOAL:** to have the greatest number of dice on your side of the “racetrack” at the end of the game

## GETTING STARTED:

Each player takes 10 dice of one color and picks a side of the gameboard to be their “racetrack”. Each player picks up a pair of dice, rolls and calculates their difference (subtraction answer). Both players verbalize their difference.

### EXAMPLE:



Player One



Player Two

Player Two says “2 is a smaller difference than 4”.

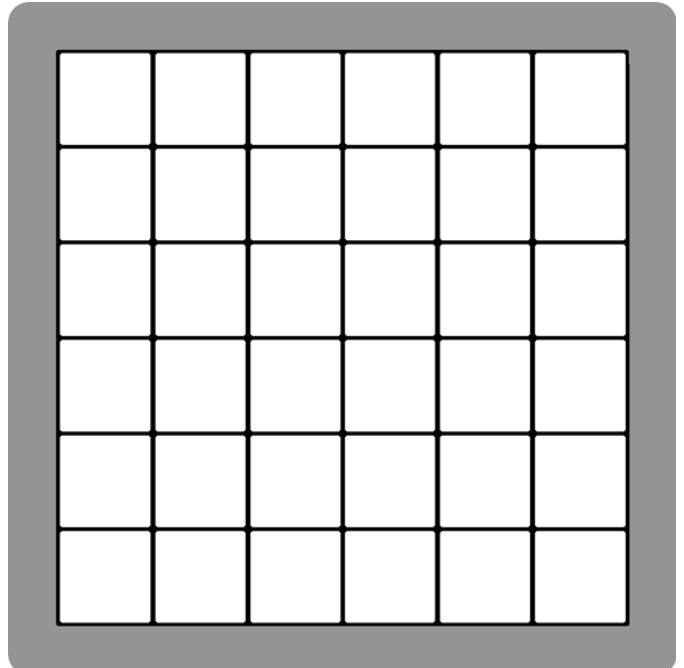
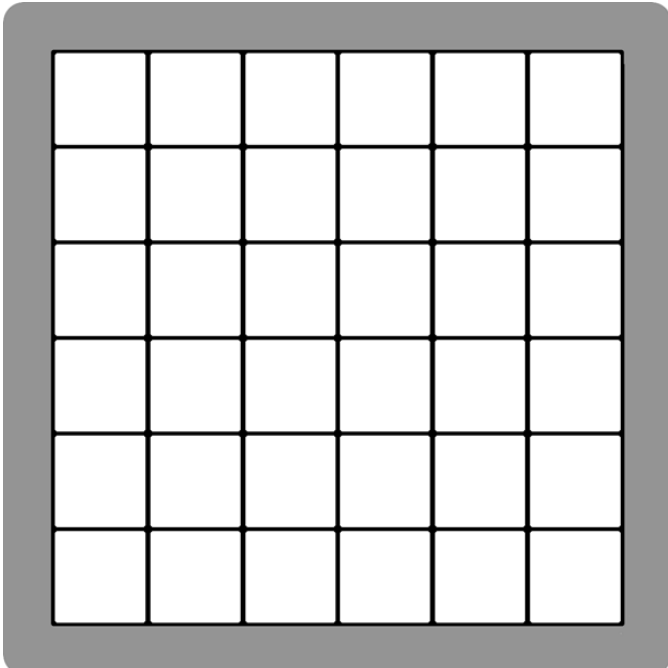
Both players now put their dice on their side of the racetrack, and the player with the least difference scores one point. In the event of a tie or equal difference, both players score a point.

Players each pick up another pair of dice, roll and compare their next differences. Play continues until both players’ 10 dice have been rolled out. The player with the greatest number of points wins.

## MATH JOURNAL WORK AND EXTENSIONS:

This game is full of opportunities to teach beginning subtraction concepts within 6.

1. Have players record a full game on the recording sheet.
2. Have players color in any differences = 0. Have students note “Doubles always subtract = 0”.  
6 - 6 , 5 - 5, 4 - 4 , 3 - 3, 2 - 2, 1 - 1.
3. Have players circle any differences = 1. Have students note “A difference of 1 is always = a pair of numbers in order.” 6 - 5, 5 - 4, 4 - 3, 3 - 2, 2 - 1 all = a difference of 1.



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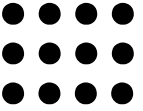
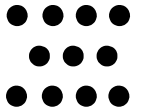
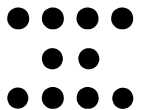
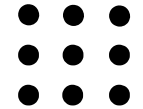
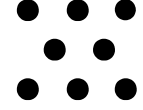
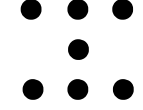
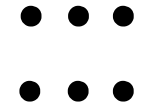
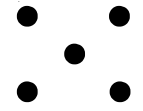
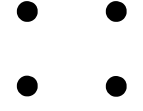
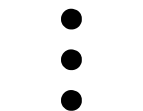
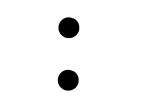
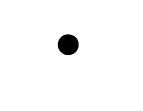
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Object of the Game: Get all the dice into the tray with no dice leftover.

Preparation: Partners "Super Mush" the dice for about 10-15 seconds, thoroughly mixing them. Next, partners choose a "Target Number" (randomly / by rolling a die / flipping over a card).

How to Play: Partners work together and use 2, 3, 4 or 5 dice to create a math sentence that equals the target number. They put the dice into the tray. Partners again use between 2 to 5 dice to create another math sentence that equals the target number and place those dice into the tray as well. Partners continue to select dice to make math sentences until all the dice are in the tray or until they can't make a math sentence that equals the target.

# ROLL AND WRITE TO 12 GAMEBOARD

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# 0-18 GRAPHICALLY SPEAKING

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# MAKE A TEN SHAKERS RECORDING SHEET

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# DOUBLES /DOUBLES + 1 RECORDING SHEET

Record your shakes. Color in all doubles red, all doubles + 1 blue.

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# DOUBLES + PATTERNS

## DOUBLE



$1 + 1 = 2$

$2 + 2 = 4$

$3 + 3 = 6$

$4 + 4 = 8$

$5 + 5 = 10$

$6 + 6 = 12$

$7 + 7 = 14$

$8 + 8 = 16$

$9 + 9 = 18$

## DOUBLE + 1



$1 + 2 = 3$

$2 + 3 = 5$

$3 + 4 = 7$

$4 + 5 = 9$

$5 + 6 = 11$

$6 + 7 = 13$

$7 + 8 = 15$

$8 + 9 = 17$

$9 + 10 = 19$

## NICKNAME

Goal Post

Rabbit, Kangaroo, Caribou

Dental

Spider, Octopus

Ten Tickly Fingers

"Box Cars", Egg Carton, Farmers

Valentine's Day

Driver Double / Sweet Sixteen

Adult Double

- Learn doubles - cards 1-6 or 1-9, regular dice, 10 sided 0-9 dice
- +1 Trick counting on
- Doubles + 1 —→ Then transfer to symbolic work

## PATTERNS FOR DICE PLAY

|          |          |          |
|----------|----------|----------|
| 1        | 2        | 6        |
| 2        | 4        | 7        |
| 3        | 6        | 8        |
| +4       | +8       | +9       |
| <hr/> 10 | <hr/> 20 | <hr/> 30 |

SIMPLE SIXES

SUCCESSFUL SEVENS

EASY EIGHTS

NIFTY NINES

TERRIFIC TENS

ENORMOUS ELEVENS

TREMENDOUS TWELVES

# ADDITION SHAKE UP RECORDING SHEET

MY SHAKE

SUM

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MY SHAKE

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|  | + |  | = |  | = |  | + |  |
|  | + |  | = |  | = |  | + |  |

# SEVEN UP - ADD UP RECORDING SHEET

Shake #  My 7 numbers \_\_\_\_\_ My Sum

| How I grouped my addends |   | Strategy I used |
|--------------------------|---|-----------------|
| • _____                  | → | • _____         |
| • _____                  | → | • _____         |
| • _____                  | → | • _____         |
| • _____                  | → | • _____         |

Shake #  My 7 numbers \_\_\_\_\_ My Sum

| How I grouped my addends |   | Strategy I used |
|--------------------------|---|-----------------|
| • _____                  | → | • _____         |
| • _____                  | → | • _____         |
| • _____                  | → | • _____         |
| • _____                  | → | • _____         |

Shake #  My 7 numbers \_\_\_\_\_ My Sum

| How I grouped my addends |   | Strategy I used |
|--------------------------|---|-----------------|
| • _____                  | → | • _____         |
| • _____                  | → | • _____         |
| • _____                  | → | • _____         |
| • _____                  | → | • _____         |

Shake #  My 7 numbers \_\_\_\_\_ My Sum

| How I grouped my addends |   | Strategy I used |
|--------------------------|---|-----------------|
| • _____                  | → | • _____         |
| • _____                  | → | • _____         |
| • _____                  | → | • _____         |
| • _____                  | → | • _____         |