Stage 3
Number Games

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Dice Wars

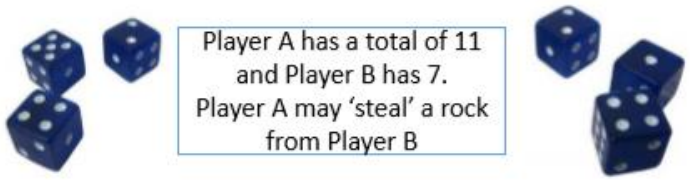
2-4 dice
10 counters

SKILL: Addition or Multiplication

How to:

- Each player starts with 2 dice and 5 counters ('rocks').
- The objective of the game is to capture all of the other player's rocks.
- On the count of three, both players roll their dice. Each player adds up the sum of his/her two dice, and whoever has a higher number gets to "steal" a rock from the other player.
- Continue playing until one player has ALL 10 rocks.

Note: Encourage using strategies to add the dice quicker, eg. doubles, near doubles, friends of 10



Player A has a total of 11 and Player B has 7. Player A may 'steal' a rock from Player B

Differentiation:

- Rolling a double trumps any other number, and you get to steal TWO rocks from the other player
- For older kids, try using three dice!
- You could practice multiplication instead of addition skills.

Take 100

2 Dice

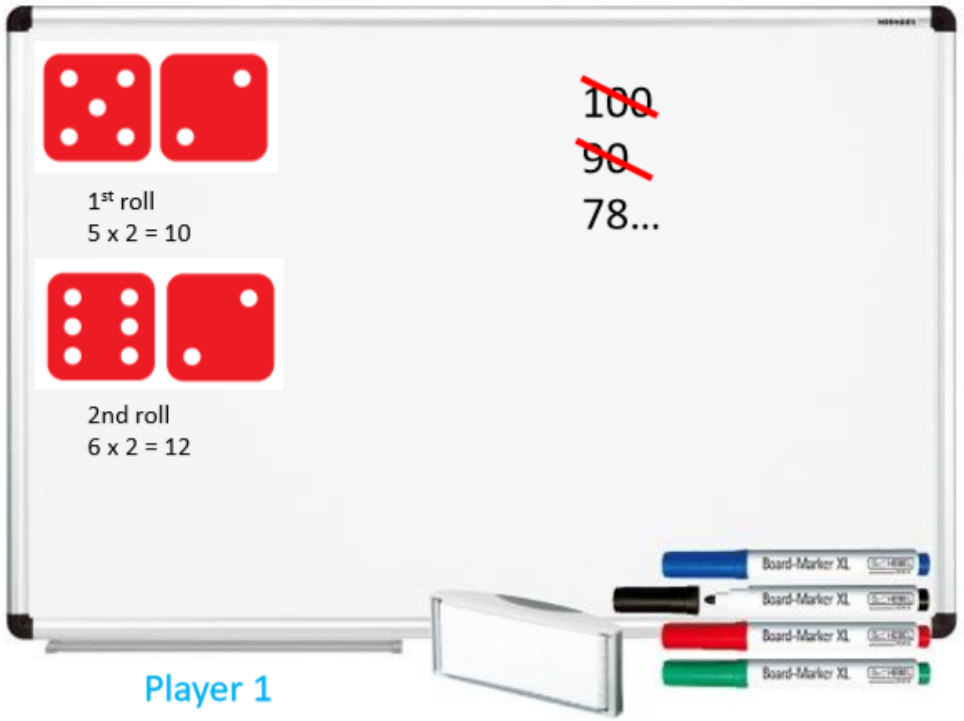
SKILL: Subtraction

Years 4-6:

Each student begins with 100 points. In turn, students roll a 2 dice and either add or multiply the numbers together before subtracting the number from their 100 points. The first player to reach zero is the winner.

Variations

- Change the number of points to begin.



Make 100

2 Dice

SKILL: Addition, Subtraction, Multiplication, Division

Years 4-8:

- The aim is to make a total of 100 or as close to 100 as possible.
- Players take turns to roll the two dice and combine the numbers with any operation to produce a score. The player who reaches 100 or is closest to 100 is the winner.
- Encourage players to record their choices and calculations.
- For example:

Dice throw	Calculation	Running total
4 and 6	4 x 6 = 24	24
1 and 4	1 + 4 = 5	29
2 and 5	2 x 5 = 10	39
6 and 6	6 x 6 = 36	75
5 and 3	5 x 3 = 15	90
2 and 3	2 + 3 = 5	95
6 and 1	6 – 1 = 5	100

Make and Round

36 cards: 1 (Ace) to 9

SKILL: Rounding to 100/1000

How to:

- Pick 3 cards from the deck and arrange them to make a 3-digit number.
- Round the number to the nearest 100 and cover that number.
- First to cover all their numbers wins.

Extension:

4 cards and rounding to nearest 1000.

100	~~600~~
200	700
300	800
400	900
500	1000

Player 1

Or rearrange to make
855 and cross out 900

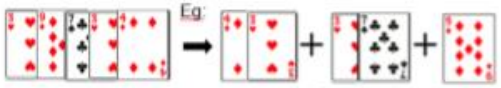
5 Cards to 100

36 cards: 1 (Ace) to 9

SKILL: Addition

Aim:
To combine your cards so they equal 100. The winner is the person whose score is closest to 100 at the end of the game.

How to:
- The dealer hands out 5 cards to each player.
- Players combine the cards in their hand to try and make them equal 100, using addition only. They can combine numbers to make a two digit number, or keep them as single digit numbers.



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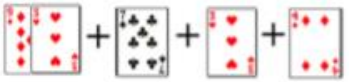

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107

- The player who has their answer closest to 100 wins.
- The cards are collected, shuffled and dealt again to start a new round.

Oh No! 99!

Skill: Addition and Subtraction

Card Values and Operations:

- Aces: add 1
- Jacks: subtract 10
- Queens: wild cards that can represent adding any number 1-10
- Kings: add zero
- All others (2–10): add their face value

How To:

1. One player shuffles the cards and deals four cards to each player. The undealt cards remain in a stack, face down.
2. Players take turns playing one card at a time, adding (or subtracting if you have a Jack) the value of their card to or from their jointly accumulating score.
3. Each time a player plays a card, he or she must replace it with the top card on the face-down stack.
4. Play continues until one player forces his or her partner to go over the score of 99.

Extra Support: the students use a number grid to 100 and circle numbers as they play.

Deck of cards

A Writing Assignment for Fifth Graders

When Caren taught the lesson in fifth grade, she gave the class this writing assignment.

"Imagine," I said, "that you're playing Oh No! 99! and the total is up to 87. Your four cards are a six, a queen, an ace, and a king. Which card would you play next?

Factors and Multiples

A 100 square grid

Skill: Factors and Multiples

How To:

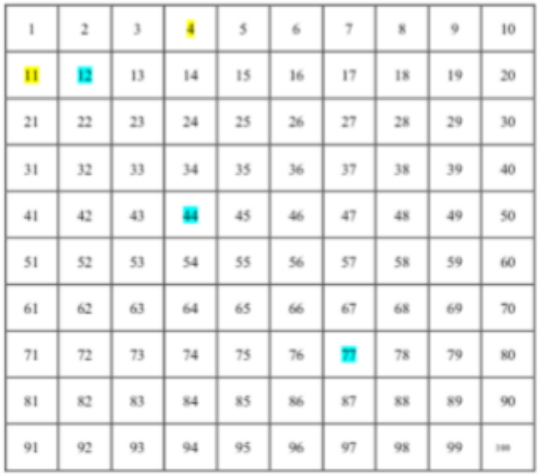
The first player chooses a positive even number that is less than 50, and covers it out on the grid with a counter.

The second player chooses a number to cover. The number must be a factor or multiple of the first number.

Players continue to take it in turns to cover numbers, at each stage choosing a number that is a factor or multiple of the number just covered by the other player.

The first person who is unable to cross out a number loses.

e.g. the following game started 12, 4, 44, 11, 77…



1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Magic Number

Deck of cards – can remove face cards

Skill: Addition and Subtraction

How To:

- Give students a magic number, eg. 43
- Player 1 picks 2 cards and the totals are added together.
- Player 2 picks a card and adds the number to the previous total.
- Player 1 picks a card and its added to the running total.
- Play continues until they get the magic number.
- Students will need to start subtracting as the running total exceeds.
- Game continues until they hit the magic number so they'll need to add and subtract a few times.

Extension:

Leave face cards in as Jack = 11, Queen = 12 and King = 13 and increase the magic number

Magic Number is 43	Running Total
Player 1 	7 + 4 = 11
Player 2 	14
Player 1 	24
Player 2 	32
Player 1 	37
Player 2 	45 (total is over so need to subtract next card)
Player 1 	43 WINNER!

Multiplication Battle

40 cards: 1 (Ace) to 10
Extension: include face cards
Dice

Skill: Multiplication

Aim: To multiply numbers to win as many cards as possible.

How To:

- Deal the cards evenly among the players.
- One player throws the dice.
- Each player then flips up one card from their pile of cards.
- Each player multiplies the number of their card with the number rolled on the dice, the highest total wins the cards that have been flipped over.
- The player that is left with cards wins!

Extension – Add face cards to multiply larger numbers.