# INTERBORO

# 3rd, 4th, & 5th Grade MATH

# ACTIVITIES

To Play with the whole Family

As we dive into sunny days and fun adventures, let's keep those math skills shining too! Scan the QR code to access creative skill-building activities you can do right at home. From games to real-life challenges, there's something for everyone because math is everywhere, and summer is the perfect time to explore it together.

Our District's goal is to have all students master all multiplication facts by the end of third grade
AND
All division facts by the end of fourth grade

# Addition Facts
## Essential Facts to Know Automatically

| Make Tens | Doubles | Near Doubles | Ten & More | Add 9 |
|---|---|---|---|---|
| 0 + 10 = 10 | 1 + 1 = 2 | 1 + 2 = 3 | 10 + 1 = 11 | 9 + 1 = 10 |
| 1 + 9 = 10 | 2 + 2 = 4 | 2 + 3 = 5 | 10 + 2 = 12 | 9 + 2 = 11 |
| 2 + 8 = 10 | 3 + 3 = 6 | 3 + 4 = 7 | 10 + 3 = 13 | 9 + 3 = 12 |
| 3 + 7 = 10 | 4 + 4 = 8 | 4 + 5 = 9 | 10 + 4 = 14 | 9 + 4 = 13 |
| 4 + 6 = 10 | 5 + 5 = 10 | 5 + 6 = 11 | 10 + 5 = 15 | 9 + 5 = 14 |
| 5 + 5 = 10 | 6 + 6 = 12 | 6 + 7 = 13 | 10 + 6 = 16 | 9 + 6 = 15 |
| | 7 + 7 = 14 | 7 + 8 = 15 | 10 + 7 = 17 | 9 + 7 = 16 |
| | 8 + 8 = 16 | 8 + 9 = 17 | 10 + 8 = 18 | 9 + 8 = 17 |
| | 9 + 9 = 19 | | 10 + 9 = 19 | 9 + 9 = 18 |
| | 10 + 10= 20 | | 10 + 10 = 20 | 9 + 10 = 19 |

# SUBTRACTION FACTS

## Essential Facts to Know Automatically

| Make Fives | Make Tens | Doubles | Near Doubles | Ten & More |
|---|---|---|---|---|
| 5 - 0 = 5 | 10 - 0 = 10 | 20 - 10 = 10 | 17 - 9 = 8 | 20 - 10 = 10 |
| 5 - 1 = 4 | 10 - 1 = 9 | 18 - 9 = 9 | 17 - 8 = 9 | 19 - 9 = 10 |
| 5 - 2 = 3 | 10 - 2 = 8 | 16 - 8 = 8 | 15 - 8 = 7 | 18 - 8 = 10 |
| 5 - 3 = 2 | 10 - 3 = 7 | 14 - 7 = 7 | 15 - 7 = 8 | 17 - 7 = 10 |
| 5 - 4 = 1 | 10 - 4 = 6 | 12 - 6 = 6 | 13 - 7 = 6 | 16 - 6 = 10 |
| 5 - 5 = 0 | 10 - 5 = 5 | 10 - 5 = 5 | 13 - 6 = 7 | 15 - 5 = 10 |
| | 10 - 6 = 4 | 8 - 4 = 4 | 11 - 6 = 5 | 14 - 4 = 10 |
| | 10 - 7 = 3 | 6 - 3 = 3 | 11 - 5 = 6 | 13 - 3 = 10 |
| | 10 - 8 = 2 | 4 - 2 = 2 | 9 - 5 = 4 | 12 - 2 = 10 |
| | 10 - 9 = 1 | 2 - 1 = 1 | 9 - 4 = 5 | 11 - 1 = 10 |
| | 10 - 10 = 0 | | 7 - 4 = 3 | |
| | | | 7 - 3 = 4 | |
| | | | 5 - 3 = 2 | |
| | | | 5 - 2 = 3 | |
| | | | 3 - 2 = 1 | |
| | | | 3 - 1 = 2 | |

# Multiplication Facts to Know Automatically

| ONES | TWOS | THREES | FOURS | FIVES | SIXES |
|---|---|---|---|---|---|
| 1 X 1 = 1 | 2 X 1 = 2 | 3 X 1 = 3 | 4 X 1 = 4 | 5 X 1 = 5 | 6 X 1 = 6 |
| 1 X 2 = 2 | 2 X 2 = 4 | 3 X 2 = 6 | 4 X 2 = 8 | 5 X 2 = 10 | 6 X 2 = 12 |
| 1 X 3 = 3 | 2 X 3 = 6 | 3 X 3 = 9 | 4 X 3 = 12 | 5 X 3 = 15 | 6 X 3 = 18 |
| 1 X 4 = 4 | 2 X 4 = 8 | 3 X 4 = 12 | 4 X 4 = 16 | 5 X 4 = 20 | 6 X 4 = 24 |
| 1 X 5 = 5 | 2 X 5 = 10 | 3 X 5 = 15 | 4 X 5 = 20 | 5 X 5 = 25 | 6 X 5 = 30 |
| 1 X 6 = 6 | 2 X 6 = 12 | 3 X 6 = 18 | 4 X 6 = 24 | 5 X 6 = 30 | 6 X 6 = 36 |
| 1 X 7 = 7 | 2 X 7 = 14 | 3 X 7 = 21 | 4 X 7 = 28 | 5 X 7 = 35 | 6 X 7 = 42 |
| 1 X 8 = 8 | 2 X 8 = 16 | 3 X 8 = 24 | 4 X 8 = 32 | 5 X 8 = 40 | 6 X 8 = 48 |
| 1 X 9 = 9 | 2 X 9 = 18 | 3 X 9 = 27 | 4 X 9 = 36 | 5 X 9 = 45 | 6 X 9 = 54 |
| 1 X 10 = 10 | 2 X 10 = 20 | 3 X 10 = 30 | 4 X 10 = 40 | 5 X 10 = 50 | 6 X 10 = 60 |
| 1 X 11 = 11 | 2 X 11 = 22 | 3 X 11 = 33 | 4 X 11 = 44 | 5 X 11 = 55 | 6 X 11 = 66 |
| 1 X 12 = 12 | 2 X 12 = 24 | 3 X 12 = 36 | 4 X 12 = 48 | 5 X 12 = 60 | 6 X 12 = 72 |

| SEVENS | EIGHTS | NINES | TENS | ELEVENS | TWELVES |
|---|---|---|---|---|---|
| 7 X 1 = 7 | 8 X 1 = 8 | 9 X 1 = 9 | 10 X 1 = 10 | 11 X 1 = 11 | 12 X 1 = 12 |
| 7 X 2 = 14 | 8 X 2 = 16 | 9 X 2 = 18 | 10 X 2 = 20 | 11 X 2 = 22 | 12 X 2 = 24 |
| 7 X 3 = 21 | 8 X 3 = 24 | 9 X 3 = 27 | 10 X 3 = 30 | 11 X 3 = 33 | 12 X 3 = 36 |
| 7 X 4 = 28 | 8 X 4 = 32 | 9 X 4 = 36 | 10 X 4 = 40 | 11 X 4 = 44 | 12 X 4 = 48 |
| 7 X 5 = 35 | 8 X 5 = 40 | 9 X 5 = 45 | 10 X 5 = 50 | 11 X 5 = 55 | 12 X 5 = 60 |
| 7 X 6 = 42 | 8 X 6 = 48 | 9 X 6 = 54 | 10 X 6 = 60 | 11 X 6 = 66 | 12 X 6 = 72 |
| 7 X 7 = 49 | 8 X 7 = 56 | 9 X 7 = 63 | 10 X 7 = 70 | 11 X 7 = 77 | 12 X 7 = 84 |
| 7 X 8 = 56 | 8 X 8 = 64 | 9 X 8 = 72 | 10 X 8 = 80 | 11 X 8 = 88 | 12 X 8 = 96 |
| 7 X 9 = 63 | 8 X 9 = 72 | 9 X 9 = 81 | 10 X 9 = 90 | 11 X 9 = 99 | 12 X 9 = 108 |
| 7 X 10 = 70 | 8 X 10 = 80 | 9 X 10 = 90 | 10 X 10 = 100 | 11 X 10 = 110 | 12 X 10 = 120 |
| 7 X 11 = 77 | 8 X 11 = 88 | 9 X 11 = 99 | 10 X 11 = 110 | 11 X 11 = 121 | 12 X 11 = 132 |
| 7 X 12 = 84 | 8 X 12 = 96 | 9 X 12 = 108 | 10 X 12 = 120 | 11 X 12 = 132 | 12 X 12 = 144 |

# Division Facts to Know Automatically

| ONES | TWOS | THREES | FOURS | FIVES | SIXES |
|---|---|---|---|---|---|
| 1 ÷ 1 = 1 | 2 ÷ 2 = 1 | 3 ÷ 3 = 1 | 4 ÷ 4 = 1 | 5 ÷ 5 = 1 | 6 ÷ 6 = 1 |
| 2 ÷ 1 = 2 | 4 ÷ 2 = 2 | 6 ÷ 3 = 2 | 8 ÷ 4 = 2 | 10 ÷ 5 = 2 | 12 ÷ 6 = 2 |
| 3 ÷ 1 = 3 | 6 ÷ 2 = 3 | 9 ÷ 3 = 3 | 12 ÷ 4 = 3 | 15 ÷ 5 = 3 | 18 ÷ 6 = 3 |
| 4 ÷ 1 = 4 | 8 ÷ 2 = 4 | 12 ÷ 3 = 4 | 16 ÷ 4 = 4 | 20 ÷ 5 = 4 | 24 ÷ 6 = 4 |
| 5 ÷ 1 = 5 | 10 ÷ 2 = 5 | 15 ÷ 3 = 5 | 20 ÷ 4 = 5 | 25 ÷ 5 = 5 | 30 ÷ 6 = 5 |
| 6 ÷ 1 = 6 | 12 ÷ 2 = 6 | 18 ÷ 3 = 6 | 24 ÷ 4 = 6 | 30 ÷ 5 = 6 | 36 ÷ 6 = 6 |
| 7 ÷ 1 = 7 | 14 ÷ 2 = 7 | 21 ÷ 3 = 7 | 28 ÷ 4 = 7 | 35 ÷ 5 = 7 | 42 ÷ 6 = 7 |
| 8 ÷ 1 = 8 | 16 ÷ 2 = 8 | 24 ÷ 3 = 8 | 32 ÷ 4 = 8 | 40 ÷ 5 = 8 | 48 ÷ 6 = 8 |
| 9 ÷ 1 = 9 | 18 ÷ 2 = 9 | 27 ÷ 3 = 9 | 36 ÷ 4 = 9 | 45 ÷ 5 = 9 | 54 ÷ 6 = 9 |
| 10 ÷ 1 = 10 | 20 ÷ 2 = 10 | 30 ÷ 3 = 10 | 40 ÷ 4 = 10 | 50 ÷ 5 = 10 | 60 ÷ 6 = 10 |
| 11 ÷ 1 = 11 | 22 ÷ 2 = 11 | 33 ÷ 3 = 11 | 44 ÷ 4 = 11 | 55 ÷ 5 = 11 | 66 ÷ 6 = 11 |
| 12 ÷ 1 = 12 | 24 ÷ 2 = 12 | 36 ÷ 3 = 12 | 48 ÷ 4 = 12 | 60 ÷ 5 = 12 | 72 ÷ 6 = 12 |

| SEVENS | EIGHTS | NINES | TENS | ELEVENS | TWELVES |
|---|---|---|---|---|---|
| 7 ÷ 7 = 1 | 8 ÷ 8 = 1 | 9 ÷ 9 = 1 | 10 ÷ 10 = 1 | 11 ÷ 11 = 1 | 12 ÷ 12 = 1 |
| 14 ÷ 7 = 2 | 16 ÷ 8 = 2 | 18 ÷ 9 = 2 | 20 ÷ 10 = 2 | 22 ÷ 11 = 2 | 24 ÷ 12 = 2 |
| 21 ÷ 7 = 3 | 24 ÷ 8 = 3 | 27 ÷ 9 = 3 | 30 ÷ 10 = 3 | 33 ÷ 11 = 3 | 36 ÷ 12 = 3 |
| 28 ÷ 7 = 4 | 32 ÷ 8 = 4 | 36 ÷ 9 = 4 | 40 ÷ 10 = 4 | 44 ÷ 11 = 4 | 48 ÷ 12 = 4 |
| 35 ÷ 7 = 5 | 40 ÷ 8 = 5 | 45 ÷ 9 = 5 | 50 ÷ 10 = 5 | 55 ÷ 11 = 5 | 60 ÷ 12 = 5 |
| 42 ÷ 7 = 6 | 48 ÷ 8 = 6 | 54 ÷ 9 = 6 | 60 ÷ 10 = 6 | 66 ÷ 11 = 6 | 72 ÷ 12 = 6 |
| 49 ÷ 7 = 7 | 56 ÷ 8 = 7 | 63 ÷ 9 = 7 | 70 ÷ 10 = 7 | 77 ÷ 11 = 7 | 84 ÷ 12 = 7 |
| 56 ÷ 7 = 8 | 64 ÷ 8 = 8 | 72 ÷ 9 = 8 | 80 ÷ 10 = 8 | 88 ÷ 11 = 8 | 96 ÷ 12 = 8 |
| 63 ÷ 7 = 9 | 72 ÷ 8 = 9 | 81 ÷ 9 = 9 | 90 ÷ 10 = 9 | 99 ÷ 11 = 9 | 108 ÷ 12 = 9 |
| 70 ÷ 7 = 10 | 80 ÷ 8 = 10 | 90 ÷ 9 = 10 | 100 ÷ 10 = 10 | 110 ÷ 11 = 10 | 120 ÷ 12 = 10 |
| 77 ÷ 7 = 11 | 88 ÷ 8 = 11 | 99 ÷ 9 = 11 | 110 ÷ 10 = 11 | 121 ÷ 11 = 11 | 132 ÷ 12 = 11 |
| 84 ÷ 7 = 12 | 96 ÷ 8 = 12 | 108 ÷ 9 = 12 | 120 ÷ 10 = 12 | 132 ÷ 11 = 12 | 144 ÷ 12 = 12 |

## Least or Greatest Sum

Materials: A deck of cards with all face cards removed, a coin

Directions:

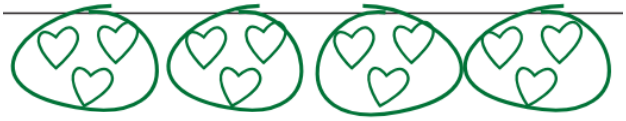
- Shuffle cards, each player takes 4 cards from the pile
- Flip a coin - Heads = Greater, Trails = Least
- Players arrange their cards into two 2-digit numbers that will add to the greatest or least number according to the coin flip and find the sum.
- Player who achieves the greatest or least sum wins the round
- Play 10 rounds

## Loops and Groups

Materials: 2 dice, paper and pencil

Directions:

- Players take turns rolling 2 dice
- Choose one die amount to be "Loops" and draw that many Loops (circles) on your paper.
- Use the other number rolled as the groups and draw that amount in each loop.
- Write a multiplication equation to match your picture
- After 4 rounds, total each round's answer to determine who has the most points



4 groups of 3 equals 12 4 x 3 = 12

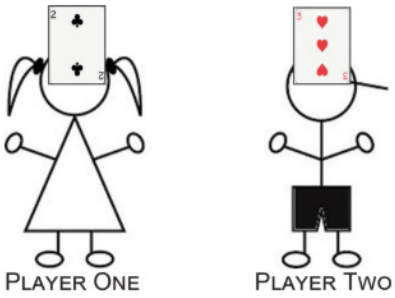
## Salute

**Materials**: Deck of cards, Ace = 1, remove face cards

**3 Players**

**Directions:**

- One player will be the "General" and will provide the SALUTE signal and call the sums for the players.
- The General calls "SALUTE!" and both players take a card from the top of the deck and, without looking at it, place it on their foreheads so the other players can see it.
- The general must add or multiply the two cards and call the sum(+) or product (x) out loud. Each player will need to determine the value of their cards. The General lets them know if they are correct.
- Players take turns becoming the "General."



## Cover It

Materials: Game board for each player, 2 dice, 12 game pieces per player (can be coins, paper clips, pasta noodles, skittles, whatever you have around the house)

Directions:

- Players take turns rolling 2 dice
- Players can add or subtract the rolled amounts to make a number on the game board and cover that number with a game piece. Midway through 3rd grade, students can use multiplication and division as well.
- When an uncovered number cannot be made, the turn is over
- Play until one player has covered all the numbers

## 3 Card Draw

Materials: A deck of cards with face cards removed

Directions:

- Shuffle the deck, Each player draws 3 cards from the top of the deck
- Each player chooses 2 cards to add and then multiplies the sum by the remaining card.
- The player with the greatest total wins the cards
- Play until no cards remain, the player with the most cards wins

## Chips

Materials: Game board for each player, 2 dice, 12 game pieces per player (can be coins, paper clips, pasta noodles, skittles, whatever you have around the house)

Directions:

- Players take turns rolling 2 dice
- Players can add or subtract the rolled amounts to make a number on the game board and cover that number with a game piece. Midway through 3rd grade, students can use multiplication and division as well.
    - When a player rolls an **11**, the opponent must clear all chips from their board.
    - When a player rolls a **12**, the player must clear all the chips from their own board
- When an uncovered number cannot be made, the turn is over
- Play until one player has covered all the numbers

## 3 Dice - Four in a Row

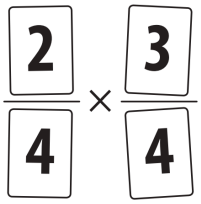
Materials: You will need: 2 or 3 players, 3 dice, game markers or colored pencils (one color for each player)

Directions:

- Players take turns rolling 3 dice.
- Add your choice of 2 the dice and then Multiply the sum by the number on the third die.
- Mark your product's square with your color. If the product is already covered, you may use a "repeat product" square if one is open.
- The player to get 4 squares in a row wins.

## Target to 1

Materials: deck of cards with the face cards removed (for easier play, remove 7,8, and 9 cards as well)




Directions:

- Shuffle the deck
- Each Player draws 4 cards
- Players use their cards to create 2 fractions to multiply and make a product as close to 1 whole as possible
- The player whose product is closest to 1 wins the round
- Play 5 rounds

For a challenge: Determine the difference between your answer and 1 and total each player's differences for 5 rounds. The player with the lowest score wins.

## Horseshoes

**Materials:** Card deck 1-9, A=1

Horseshoes can be played with 2-4 players. Remove all face cards and tens from a deck of cards, so the only cards are from 1-9. The leader picks out two cards, forms a two-digit number with them and writes it on the board/piece of paper. This is the target number. Then the leader picks four or more cards and writes those digits on the board/ piece of paper. The goal of this game is to create an equation using only the four digits that were drawn that equals an amount as close as possible to the target number. Whoever is closest to the target wins that round. It doesn't matter whether someone goes over or under. It is possible to play with multiplication and division, but this version is for addition and subtraction.

### Example Game

The leader draws a 3 and a 7, and writes the target number 37 on the board.
Then the leader draws the four digits 2, 4, 4, and 9.
After all the digits are written on the board, there are three minutes of quiet, where everyone writes their attempts and equations down on their own paper.
When the three minutes are up, the leader calls on people who say what they got, and how they got it.

Student 1: I got 43, by taking 49 - 4 - 2.
Student 2: I got 48. I took 92 - 44.
Student 3: I got 37 exactly! I did 44 - 9 + 2.

# Cover It

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

# Cover It

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

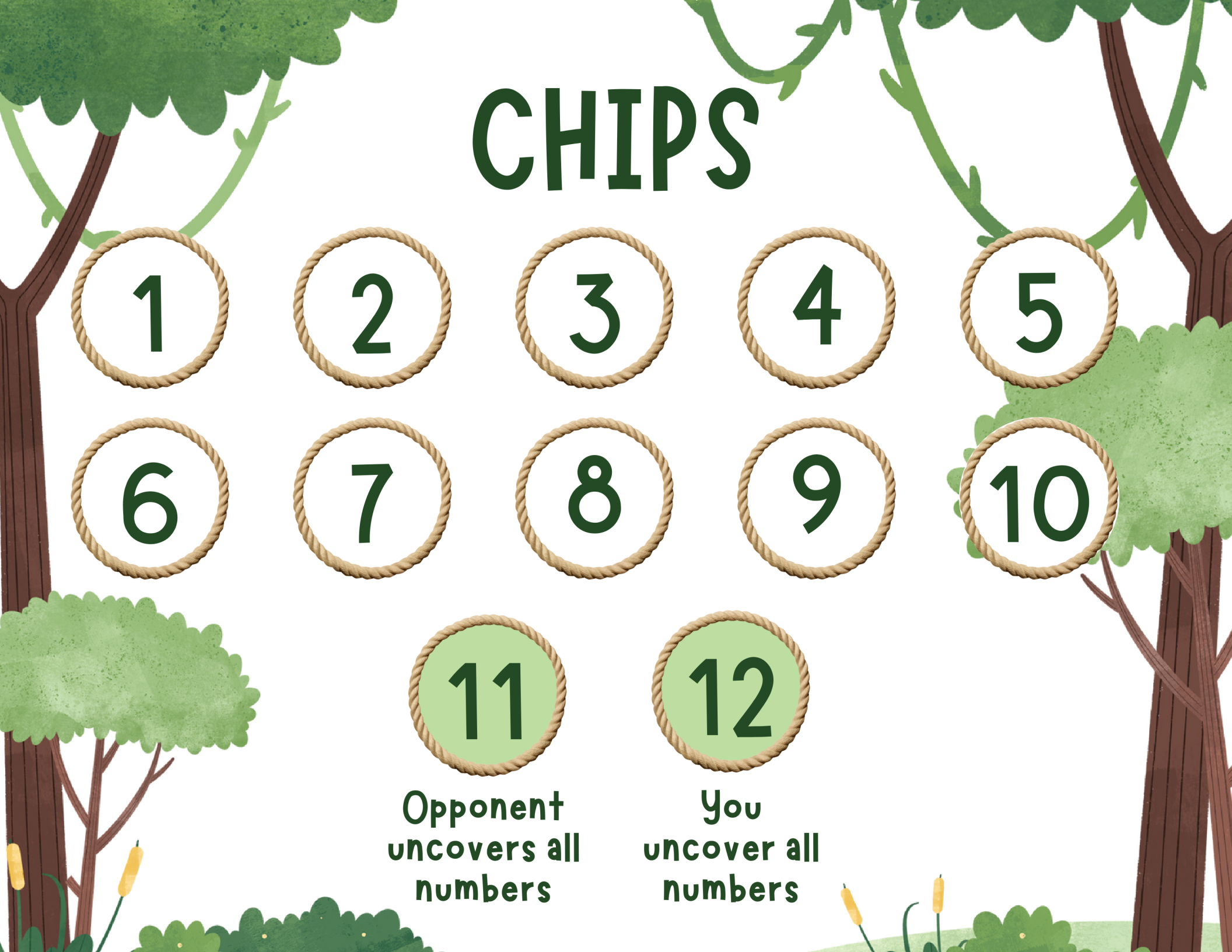
# CHIPS

1 2 3 4 5

6 7 8 9 10

11 Opponent uncovers all numbers

12 You uncover all numbers



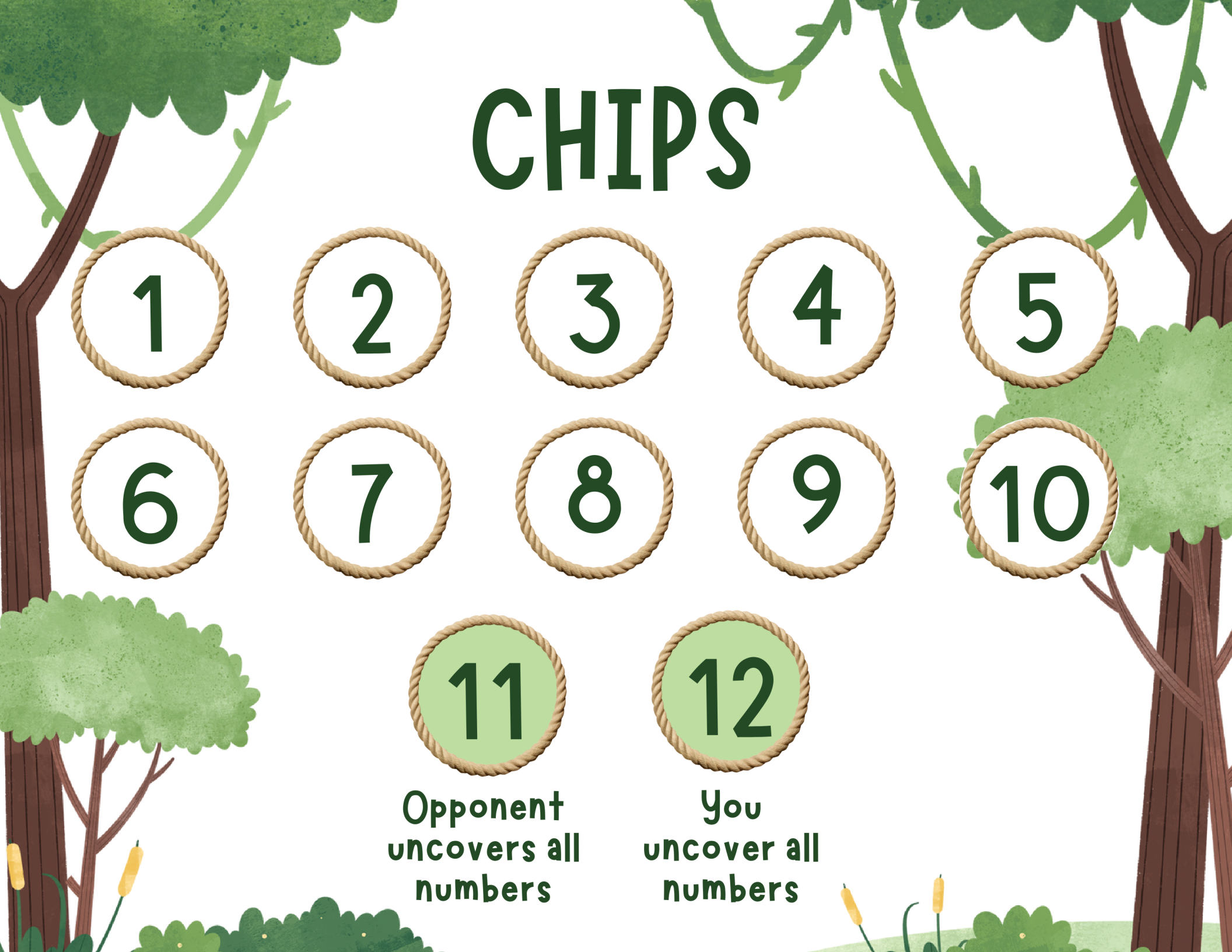
# CHIPS

1 2 3 4 5

6 7 8 9 10

11 Opponent uncovers all numbers

12 You uncover all numbers



# 3 Dice - Four in a Row

**You will need:** 2 or 3 players, 3 dice, game markers or colored pencils (one color for each player
**On your turn:** Roll 3 dice. Add your choice of 2 the dice and then Multiply the sum by the number on the third die.
Mark your product's square with your color. If the product is already covered, you may use a "repeat product" square if one is open. The player to get 4 squares in a row wins.

| | | | | | |
|---|---|---|---|---|---|
| 2 | 3 | repeat product | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | repeat product | 11 |
| 12 | 14 | 15 | 16 | 18 | 20 |
| repeat product | 21 | 22 | 24 | 25 | 27 |
| 28 | 30 | 32 | 33 | 35 | 36 |
| 40 | 42 | 44 | 45 | 48 | 50 |
| 54 | 55 | 60 | repeat product | 66 | 72 |