

Bouncy Dice Explosion

Grades K-2



The Big Idea

Today you're going to toss bouncy rubber dice to see what numbers you roll. You'll also play War to see who's the high roller. Finally, you'll move onto a giant human Bingo board, where you'll roll 2 dice and pick any number that could win!

Supplies

In your kit:

- ★ Bouncy rubber dice: 20
- ★ Rock 'n' Roll Bingo numbers: 1 set
- ★ Masking tape
- ★ Stickers: 2 sheets

You provide:

- ★ Paper: 1/2 sheet per kid

Key Prep

- ★ Pre-cut a row of 9 gold star stickers for each player.

Room Set-up

- ★ You'll need open space, at least a 6 x 6-foot rectangle, to toss the dice.
- ★ If you have extra space beyond that, you can set up the Rock 'n' Roll Bingo numbers ahead of time using the guide on page 4. Kids will stand on the numbers, so leave space around each bingo number so kids are not squeezed too close together when playing. The pack includes numbers for grade K-2 and 3-5, so you'll have some numbers leftover.

What's the Math?

- ★ Addition
- ★ Counting
- ★ Frequency
- ★ Subtraction
- ★ Bonus: Single-digit division

Kickoff

"Dice don't really roll, do they? Since they're cubes, with straight lines and angled corners, they bounce and tumble instead of rolling like a ball. Today we have some really bouncy dice to toss!"

Going Airborne (10-15 minutes)

"First let's see what dice look like, and how far these dice can fly."

1. Hand 1 die to each kid. Have them count the sides and edges on it.
 - ? "What's the smallest number of dots on one side? The largest?"
 - ? "What do you notice about the numbers on opposite sides of the dice?" **Discuss.**
- Party Fun Fact:** See if they get that opposite sides of dice always add to 7!
2. Now collect the dice from everyone. Stand in the middle of a cleared area and toss all the dice into the air at once.
3. When the dice stop bouncing, have each kid find 1 die and count the dots facing up before picking up the die.
4. Have kids who got the same number stand together. Count the number of kids in each group to see how many times each number was rolled.
 - ? "Which number showed up the most often?" **Discuss.**

Extra Challenge (optional)

- ? "How often should each number show up?" **Discuss.** You can explain probability: Each side of a die has a 1 in 6 chance of facing up. So, each number should show up on about 1/6th of the dice. For example, if you're at a birthday party decorated with equal amounts of red, yellow, and blue party favor balloons, you have a 1 in 3 chance that you'll get a red balloon to take home with you.

Rock 'n' Roll Bingo (20-25 minutes)

"Who here likes playing Bingo? Today we're going to jazz it up. First, you're going to play on a giant Bingo board where you are the chips. Secondly, you'll get to roll 2 dice and choose where to stand based on the numbers you roll! When 5 people are standing in a straight line and yell 'Bingo!' they win."

1. If you haven't already done so, tape the Bingo numbers to the floor using the guide on page 4. Be sure to leave enough space around each number so kids aren't squeezed too close together when playing.
2. The first player rolls both dice and decides where to stand: on a number shown on any 1 die OR the sum of the 2 dice - their pick! Encourage the players to work together to choose the best move.
3. If none of the numbers or sum of the dice matches an open square, the player may roll again.
4. If the dice add up to 10, 11, or 12 and those spots are already occupied, the player can roll again or choose to stand in the free space.
5. Repeat for each player in the group.

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6. If you run out of players before anyone can yell "Bingo!", use shoes or other objects as placeholders. The players can start rolling again from their places on the board, in their original order.
7. The first 5 kids to form a row yell "Bingo!" and win the round.
8. Repeat the game as time and interest allow, making sure every player gets to roll at least once.

Extra Challenge (optional)

If the kids are ready for a challenge, let them add, subtract or multiply the 2 numbers on the dice to play the game.

War of the Dice (10-15 minutes)

"Has anyone played the card game War? If you have, can you tell us how to play?" **Discuss.**

"In our bouncy dice version of War, you're going to roll dice instead of flipping cards!"

1. Have kids pair off with a partner and spread out on the floor. If you have an odd number of kids, you can make 1 group of 3.
2. Give each kid 1 pair of dice, 1/2 sheet of paper, and a set of stickers (or pencil or crayon if you don't have stickers).
3. Each player rolls 2 dice and adds the numbers of their dice together.
4. The player who rolls the higher product wins the round and places a sticker (or makes a tick mark) on his/her paper.
5. In the case of ties, there's no winner - simply roll again.
6. After kids have played a few rounds, ask:
 - ? "How often did each person win or lose?" **Discuss.**
 - ★ "Each person should win about half the time. Because there are only 2 players in War, each kid has a 50% chance of winning."


Extra Challenge (optional)

To give older kids enough challenge, after 5 rolls they can switch to subtracting one die from the other. The higher result still wins!

Wrap Up

"We're really on a roll with these dice! Not only did we practice our addition skills, we also learned about the math behind probability, which is used to forecast weather and help coaches make decisions on game day!"

Bingo Set-up Guide for Grades K-2

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