

# Collect the Tens

<b>Roll 1</b> Record the sum of your complete groups of ten.	
<b>Roll 2</b> Add the sum of your complete groups of ten.	+
<b>Roll 3</b> Add the sum of your complete groups of ten.	+
<b>Roll 4</b> Add the sum of your complete groups of ten.	+
<b>Roll 5</b> The BIG FINISH: <u>Add the sum of all 10 dice.</u>	+
<b>TOTAL SCORE</b>	

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**Materials:** 10 dice for each player, preferably different colors  
Student recording page and writing tool

**Preparation:**

- In the rectangle at the top of each column, record a player's name OR the color of dice they are using. For young children, associating the score with the dice color instead of the child's name can help to diffuse negative emotions around winning/losing.
- Rolling 10 dice is very exciting! Demonstrate how to hold all 10 dice in two hands, give them a gentle shake, and release them near the playing surface.
- Establish the expectation that players don't touch another player's dice, though they may offer suggestions if invited.

**How to Play:** Players take turns rolling a collection of 10 dice.

*For Roll 1 – Roll 4*

Roll all 10 dice.

Organize your dice into as many groups of 10 as possible.

Groups of 10 can include any number of dice, provided the sum of the collection equals 10 (e.g., 4+6, 5+3+2, 2+2+3+3).

Your score for the round is the sum of your groups of 10 (e.g., the score for 4 groups of 10 is 40).

Dice that aren't used to form groups of 10 are not included in your score.

After each round, add the sum of your groups of 10 to your prior score.

*For Roll 5 – The BIG FINISH*

Roll all 10 dice.

Your score for the round is the sum of all 10 dice.

While you're not required to organize your dice into groups of 10, it can be very helpful!

To calculate your total score, add your BIG FINISH score to your prior score.

**Why this game?** This game has been used successfully in kindergarten, first, and second grade classrooms. It was designed to support young children who had learned the traditional addition algorithm but did not yet understand place value. Rather than thinking about quantity, these children focused on manipulating single digits. Adding multiples of 10 in this game provided a setting in which the children focused on  $20 + 30$ , for example, rather than  $2 + 3$ .

As we've played Collect the Tens with our students, we've also noticed other advantages:

- In this game a collection of 10 can be made with any number of dice, which encourages engagement with a variety of number combinations. Students come to realize that reorganizing their dice sometimes enables them to create more groups of 10.
- The score typically exceeds 100, providing an opportunity to take jumps that include the oft-forgotten number 110.
- The BIG FINISH elevates the challenge because players typically must increment by 10s and 1s. Anticipation of the final round also holds student interest.
- Older students can use an empty number line to determine the difference between the two scores.
- Thirty is a common score in the early rounds, and it's also possible to score zero. Second graders have enjoyed thinking about these situations.

We've also noted one situation that's useful to anticipate: Although it's rare, a young student who happens to roll many 6s in the final round may do lots of counting by ones to arrive at his or her score for Roll 5.

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Collect the Tens was created in partnership with the students of University School of Nashville.

We'd love to hear about your experiences with the game!

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