

RISK IT! STICKS

The goal of the game is to get to exactly 21, or as close as you can, *without going over*. It can get pretty RISKY!!

Frequency Table: The set of twenty-five sticks includes the following:

0 0 0	1 1 1 1 1	2 2 2 2	3 3 3 3	4 4 4
5 5	6	7	8	9

Players always starts with all sticks face down on the table.

Directions:

Part 1 (to practice creating a running total):

- ❖ Player One picks up a stick and says its value. Player Two picks up a stick and adds its value to the value of the stick Player One picked up, saying the equation. This is the beginning of creating a "running total".
 - Example: Player One picks up a 2. Player Two picks up a 4 and says, " $2 + 4 = 6$ ".
- ❖ Players take turns picking up sticks and adding their value to the "running total".
 - Example: Player One next picks up a 3 and says, " $6 + 3 = 9$ ".
- ❖ Players stop when the total is greater than 21.

Part 2

- ❖ Players again take turns picking up sticks, but this time they will keep their own running total.
- ❖ Players do NOT want to go over 21. They each need to decide, for themselves, when to stop picking up sticks.
- ❖ Each player records his/her score. If the sum is less than or equal to 21, they record that sum as their score. If the sum is greater than 21, a score of 0 is recorded.
- ❖ The player closest to 21, without going over, wins the round.
- ❖ Turn the sticks back over and repeat.

Part 3:

- ❖ Player One begins turning over sticks, one-at-a-time, adding each stick.
- ❖ Player I continues until the sum is near 21. Player One must decide if the risk is too great to continue picking sticks. Player One can choose to continue picking up sticks and finding the new sum or STOP. Remember, there is a risk of going over 21.

- ❖ If the sum is greater than 21, the player's turn is over. A score of 0 is recorded.
- ❖ When Player One decides to stop picking sticks OR a sum of 21 is reached, he/she records the score.
- ❖ Player One should turn all sticks face down, and Player Two's turn begins.
- ❖ Player Two repeats the same steps as Player One.
- ❖ A round is over when both players have had a turn.
- ❖ Players should record their scores.
- ❖ The player closest to 21, without going over, wins the round.
- ❖ For each round, players should alternate who picks up the sticks first.

Formative Assessment Questions:

- ❖ What strategies did you use to add and create a running total?
- ❖ What did you think about when you tried to decide whether or not you should keep picking up sticks or stop?
- ❖ On Part 3, did going first vs. second affect your decision as to whether or not to stop picking up sticks?

Risk It Stick Recording Sheet

Round	Player One	Player Two	Compare Player's Scores	Winner of Round
Example	17	19	$17 < 19$	Player Two
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				