



Mix it Up

Math Concepts: All operations 1-25

Materials: Numbered cards 1-25

Players: 2-4, whole class

Set up: Use numbered cards from 1 to 25, or a range your students are comfortable with.

Play: A card is selected at random and used as everyone's target number. That card is returned to the deck. Each player is dealt five cards to be used, in any order and with any operations, to get as close as possible to the target number.

Examples: Suppose the target number is 14, and you are dealt 3, 6, 12, 17, and 20. Each of $17 - 3$ or $20 - 6$ work, but they only use two cards. Better is $20 - 12 + 6$, which uses three cards. Even better are the following two options which use four of the cards: $17 \times (6 / 3) - 20$ or $20 - (12 / (6 / 3))$. Can you find a way to use all five cards?

Goal: Be the player to get the highest score – see the scoring options below.

– DISCUSSION AND TIPS –

Compare different strategies for getting the same result.

– VARIATIONS –

There are several options for scoring, and you and your students may think of your own.

- 1 point to each player who hits the target. Total over several rounds.
- A player's score for a round is the difference between their result and the target. The scores are totaled over several rounds, and the lowest total score wins.
- A player earns twice as many points as the number of cards they use to reach the target; a player receives 5 points for hitting the target with help; and a player receives 6 points for helping someone hit the target.
- Use this as a quick classroom break activity where the whole class is given the same target and five cards to reach the target. Have fun comparing answers and seeing who can get closest.