

Lucky 13

Lucky 13 is a game that focuses on number combinations for 13 by practicing adding strategies such as counting up and down, doubles and near doubles and making ten.

Source: Math Fact Fluency: 60+ Games and Assessment Tools to Support Learning and Retention by J. Bay-Williams and G. Kling (2019)

Materials needed:

- 1) Regular playing cards Ace-10 (Ace=1)
 - a. Can add a face card like a Queen as a 0 for some of the alternative ways of playing

A game for 2-4 players

Instructions for playing:

The goal of the game is to have the lowest total sum after five rounds of playing.

- 1) Each player chooses five cards from the top of a face-down deck of cards.
- 2) Each player looks at their card and chooses two cards that when added together make a sum of Lucky 13 or as close to 13 as they can (over or under).
- 3) Each player determines their score for this first round. If their two cards equaled 13 exactly, they score 0. If their two cards equal one away from 13 (12 or 14) they score 1. Each player scores the difference between their sum and Lucky 13.
- 4) Players all record their scores using tallies, numbers or markers.
- 5) Each player returns their two cards to the bottom of the deck and chooses two new cards from the top.
- 6) Players play four more rounds, keeping score for each round.
- 7) After playing five rounds, each player totals their score. The player with the lowest score wins.

During and after each round or game, the teacher can ask questions to promote thinking, computational fluency and flexibility and reflection such as:

- a. What strategy did you use to add your two numbers together?
- b. How did you decide which cards to use?
- c. What are all the different ways you can make Lucky 13 with two cards? With three cards? With four cards?

BC Mathematics Curricular Content and Competencies:

- computational fluency develops from a strong sense of number
- addition and subtraction facts to 20
- relationship between addition and subtraction
- develop mental math strategies
- develop, demonstrate and apply mathematical understanding through play
- use mathematical vocabulary and language
- explain and justify mathematical ideas and decisions
- connect mathematical concepts to each other

Different ways to play:

Adding with multiple addends:

Players can use multiple addends. For example, a player could use the cards 6+5+2 to make 13. At the beginning of the game, the players decide together if they are going to play with 2 or 3 addends or 2, 3 or 4 addends.

Adding and Subtracting:

Players can use 2, 3 or 4 cards to reach Lucky 13 using addition and/or subtraction. For example, they could use 7+7 to make 14 and then subtract an Ace to reach 13.

Change the Target Number

Change the target number from 13 to another number. Numbers over ten encourage the making ten strategy and odd numbers encourage students to think about the doubles plus or minus one strategy. If you want to play a subtraction only game, choose a target number five or under.