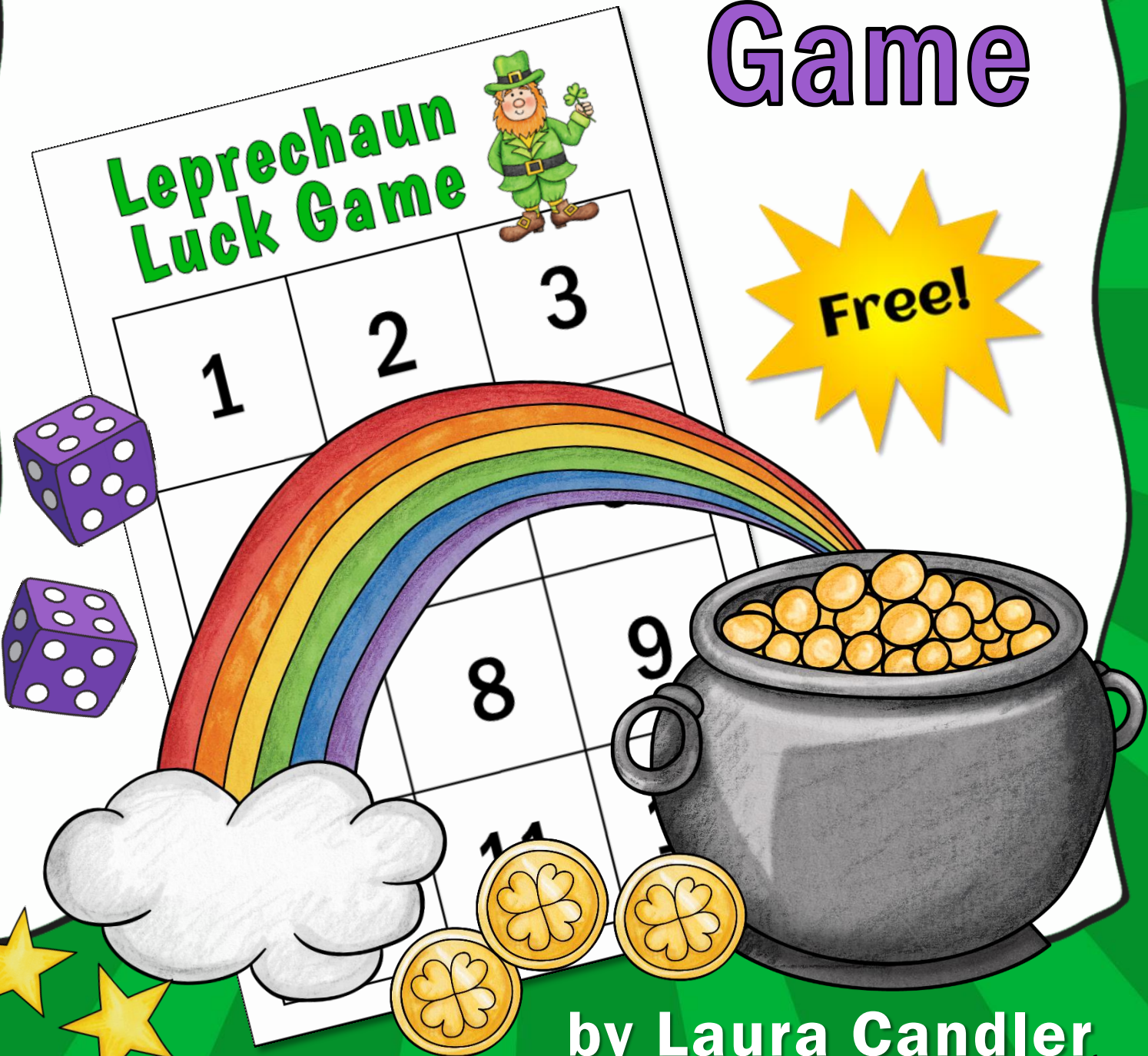


# Leprechaun Luck Probability Game



**Free!**

by Laura Candler

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Leprechaun Luck is an exciting, fast-paced partner game that will spark rich math discussions while deepening your students' understanding of luck and probability. Players begin by placing 12 game markers on any of the 12 spaces on their own game boards. They take turns rolling two dice and removing any game markers from the square displaying the sum of the dice. The winner is the first player to remove all 12 markers.

The outcome might seem to be based purely on luck, but savvy players quickly learn to apply the laws of probability in order to increase their chances of winning! Play the game a few times yourself before introducing it to your students. You'll gain some valuable insights that will help you teach it to your students.

## Advanced Preparation

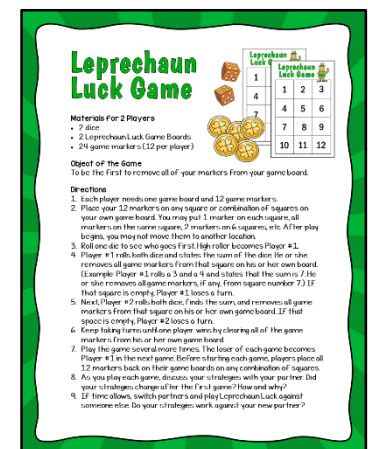
This freebie includes color and B&W versions of the game board, game markers, and directions. Before you begin, gather the following for each pair of students: 2 dice, 2 game boards, and 24 game markers. If you don't want to print the game markers, you can give each student 12 small objects such as pennies, paper clips, or dried beans. To make the game even more fun, use the colorful charms from Lucky Charms cereal!



## How to Introduce Leprechaun Luck

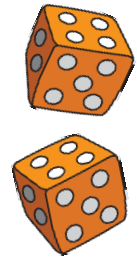
Introduce Leprechaun Luck to your students as a fun partner game, but don't mention probability just yet. Assign partners, distribute the materials, and display the game directions. Read the first two steps aloud and make sure everyone understands how to place the 12 game markers on their own game boards. They may place one marker on each square, all of them on one square, or in any other combination. Point out that after play begins, they may not move their markers to another location.

Next, read the rest of the directions aloud and guide your students through the first round of play. Encourage them to discuss their strategies with their partners, and if time allows, let them switch partners and play against other classmates.



## Exploring Luck and Probability

After your students play a few games, they'll begin to develop strategies for improving their chances of winning. When you see this happening, encourage discussion about why some numbers seem to be "luckier" than others. As you discuss these concepts, introduce probability terms such as possible, impossible, chance, most likely, equally likely, and unlikely. How deep you dig into the topic of probability will depend on your students and the time available.



The first thing most students notice is that placing one marker on every number is not an effective strategy. There's no way to get a sum of 1 by adding the numbers on 2 dice, so if you place a marker on each spot, you're destined to lose! In probability terms, placing 1 marker on each square makes it impossible to win the game.

When your students begin to notice that the same sums are repeatedly rolled, ask them which sums seem to appear most often. If your students have played several games and they don't notice that some numbers seem luckier than others ask, "Are all sums equally likely when rolling two dice? If not, which ones are more likely to appear?"

Eventually your students will notice that numbers in the middle of the game board seem to be "luckier." At this point, stop the game for a few minutes and challenge your students to figure out why some sums are rolled more frequently.

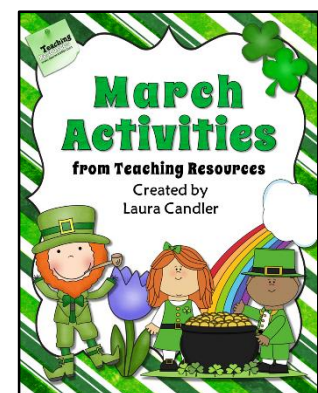
One way to do this is to make a chart listing the sums in one column and all possible dice combinations in the other column. From the chart, it's easy to see why the chances of rolling a sum of 6, 7, or 8 are greater than the other numbers, making the numbers seem "luckier."

To wrap up the probability lesson, provide time to play a few more rounds of the game. Ask your students to use what they learned to develop new strategies for winning. You might even want to send home copies of the game materials and ask students to play against family members.

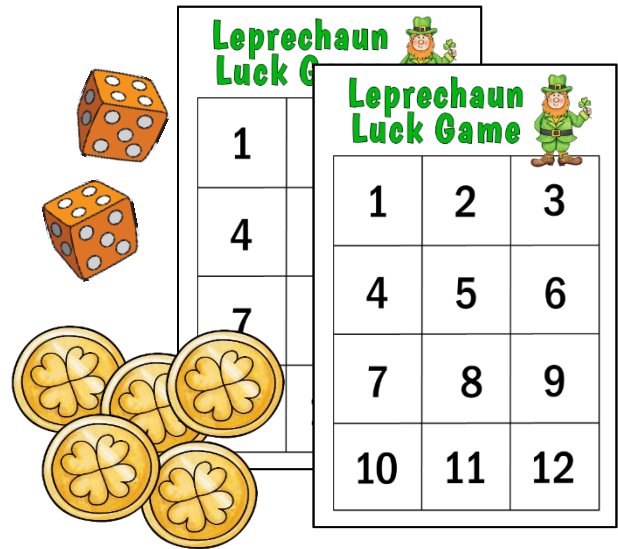
Sum	Dice Combinations*
1	none
2	1 + 1
3	1 + 2
4	1 + 3, 2 + 2
5	1 + 4, 2 + 3
6	1 + 5, 2 + 4, 3 + 3
7	1 + 6, 2 + 5, 3 + 4
8	2 + 6, 4 + 4, 3 + 5
9	3 + 6, 4 + 5
10	5 + 5, 4 + 6
11	5 + 6
12	6 + 6



This Leprechaun Luck Probability Game freebie is one of the many activities in my **March Activities** pack. It's as a sample of the lessons you can find in that resource, as well as in all seven of my Seasonal Activity packs. To preview the March Mini Pack, click on the cover on the right or on [this link](#) to find it on TpT.



# Leprechaun Luck Game



## Materials for 2 Players

- 2 dice
- 2 Leprechaun Luck Game Boards
- 24 game markers (12 per player)

## Object of the Game

To be the first to remove all of your markers from your game board.

## Directions

1. Each player needs one game board and 12 game markers.
2. Place your 12 markers on any square or combination of squares on your own game board. You may put 1 marker on each square, all markers on the same square, 2 markers on 6 squares, etc. After play begins, you may not move them to another location.
3. Roll one die to see who goes first. High roller becomes Player #1.
4. Player #1 rolls both dice and states the sum of the dice. He or she removes all game markers from that square on his or her own board. (Example: Player #1 rolls a 3 and a 4 and states that the sum is 7. He or she removes all game markers, if any, from square number 7.) If that square is empty, Player #1 loses a turn.
5. Next, Player #2 rolls both dice, finds the sum, and removes all game markers from that square on his or her own game board. If that space is empty, Player #2 loses a turn.
6. Keep taking turns until one player wins by clearing all of the game markers from his or her own game board.
7. Play the game several more times. The loser of each game becomes Player #1 in the next game. Before starting each game, players place all 12 markers back on their game boards on any combination of squares.
8. As you play each game, discuss your strategies with your partner. Did your strategies change after the first game? How and why?
9. If time allows, switch partners and play Leprechaun Luck against someone else. Do your strategies work against your new partner?

# Leprechaun Luck Game



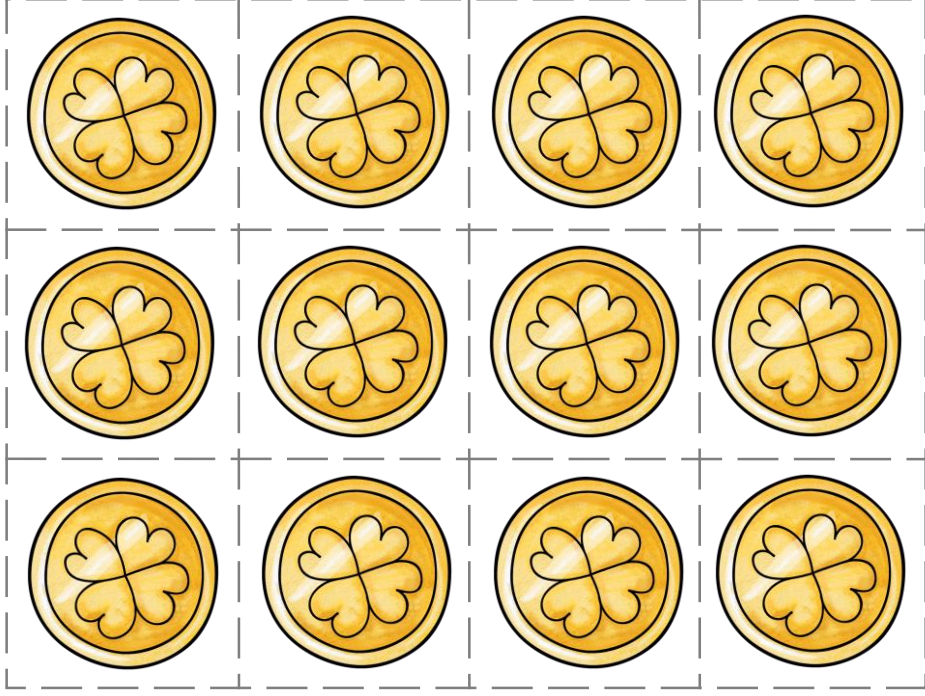
1	2	3	
4	5	6	
7	8	9	
10	11	12	

# Leprechaun Luck Game

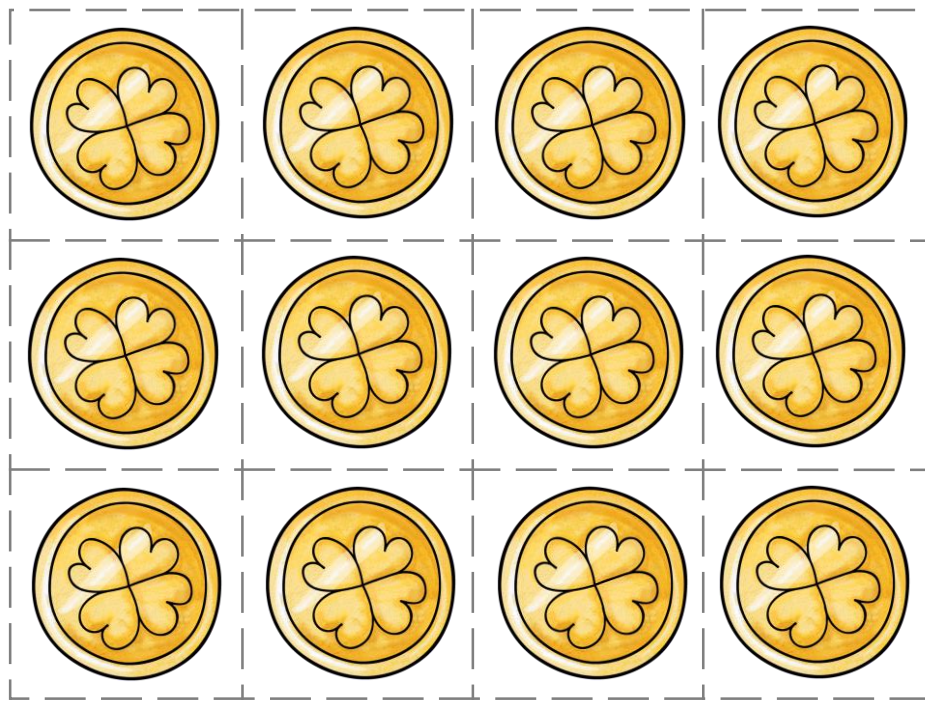


1	2	3	
4	5	6	
7	8	9	
10	11	12	

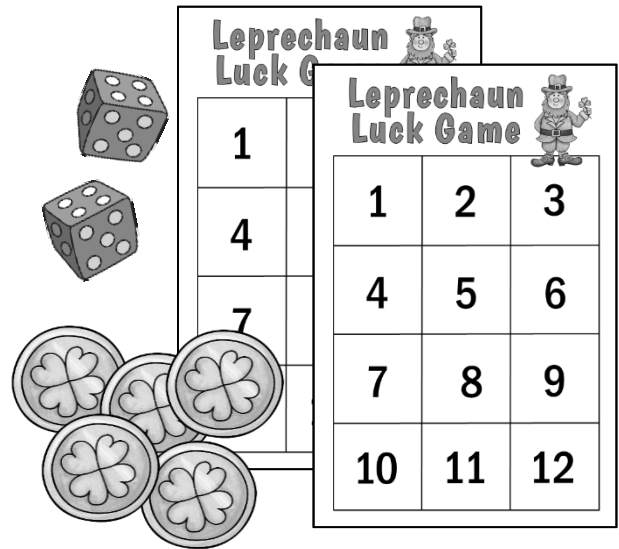
# Leprechaun Luck Game Markers



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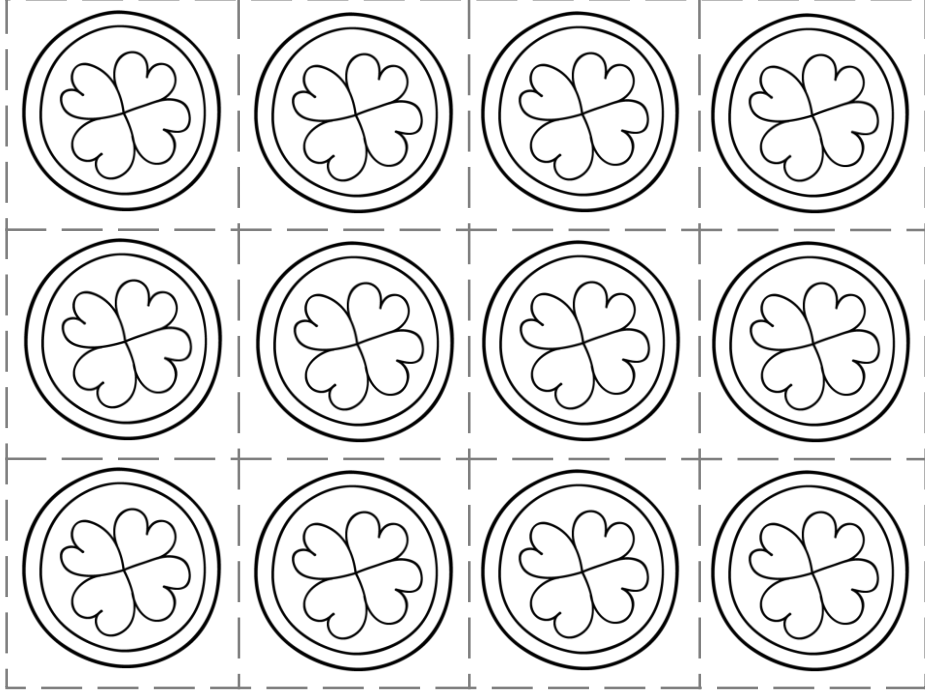
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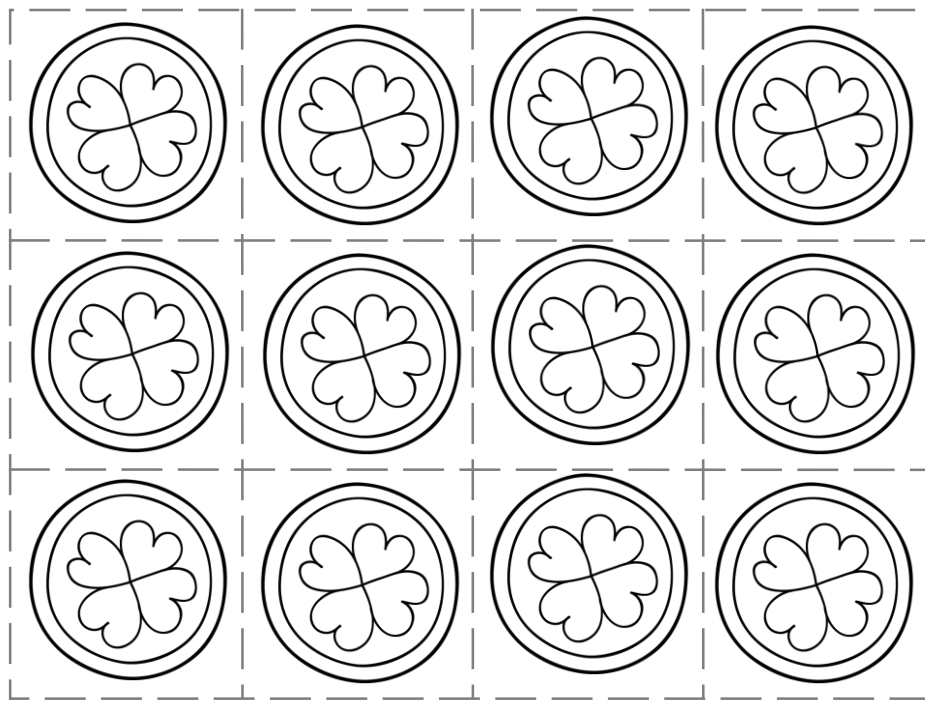
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# Leprechaun Luck Game Markers



# Leprechaun Luck Game Markers



## Seasonal Mini Packs from Laura Candler

Click each Seasonal Activities Pack below to find the item on TpT.



## More Terrific Teaching Resources



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