## 20 Games to Play with Dice

If you don't have dice, why not try these games with spinners instead? You can either print them out or use online spinners!

| Game 1: Dice Battle |
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| Number of Players: 2-4 |
| Difficulty Level: Easy/Medium |
| You will need: Two dice |
| Instructions: Each player rolls two dice and adds them together. The |
| player with the highest total is the winner. |
| Top Tip: To make this game harder, you could use three dice instead of two. |

## Game 3: Four in a Row

Number of Players: 2
Difficulty Level: Easy
You will need: Two dice, a Four in a Row Grid and some colouring pencils Preparation: Draw or print out or a copy of the Four in a Row Grid.
Instructions: Each player takes their turn to roll both dice. They add the totals together and circle a number on the Four in a Row Grid that matches this total. The first person to circle four numbers in a vertical, horizontal or diagonal line is the winner.

Top Tip: To make this game harder, you could use three dice instead of two.

## Game 2: Place Value Champion

Number of Players: 2-4
Difficulty Level: Easy/Medium
You will need: Two dice per player
Preparation: Before you start the game, decide if the winner will be the person with the highest or lowest number.

Instructions: Each player rolls two dice and creates a two-digit number. For example, if a 6 and 5 were rolled, you could either make the number 56 or 65. The winner is the person with either the highest number or lowest number, depending on the rule set at the beginning of the game.

Top Tip: To make the game harder, you could use more dice and make bigger numbers.


## Game 4: Turn the Cards

Number of Players: 1
Difficulty Level: Medium
You will need: Digit Cards (1-9) and two dice
Preparation: Lay the digit cards in the correct order, 1-9, on the table.

Instructions:
Roll two dice (1-6).
Find the sum of the dice. You can turn over one, two or more digit cards that make that sum using any operation. For example, if the dice total is eight, you could turn over five, two and one because $5+2+1=8$ or you could turn over two and four because $2 \times 4=8$, or you could turn over seven, two and one because $(7+2)-1=8$. You repeat your turn until you have turned over all the cards or you can no longer use the remaining cards to make the total on your dice.


## Game 5: Multiplication War

Number of Players: 2
You will need: Two dice, a Multiplication Dice Game Sheet and some colouring pencils

Preparation: Print out a Multiplication Dice Game Sheet.
Instructions: Each player takes it turn to roll both dice. Multiply the numbers together and circle a number on the grid that matches the total. The first person to circle four numbers in either a vertical, horizontal or diagonal line is the winner.

Game 6: Full House
Number of Players: 2-4
Difficulty Level: Easy
You will need: Six dice per player
Instructions: The aim of the game is for each player to race against each other to collect the numbers $1-6$ to create a full house.

## Game 7: Number Ladder

## Number of Players: 2

## Difficulty Level: Medium

You will need: Four dice, a pen and a piece of paper

Preparation: Before you begin the game, draw a ladder (see the image below) with the numbers 6666 on the top rung and 1111 on the bottom rung.

Instructions: Each player takes it in turns to roll all four dice and arrange the digits rolled to create a four-digit number that will sit on a rung of the ladder. The only rule being that when writing the number on the ladder, it must sit between the two numbers that are already there. For example, if player one rolled their dice and created the number 4536 and wrote it in the rung directly above 1111, that would mean the next player who rolled their dice must use the digits to make a number that comes between 4536 and 6666 or they will be out. Players take it in turns until one is out or the ladder is completed, which means the game ends in a draw.


Game 8: Code Generator
Number of Players: 2-4
Difficulty Level: Hard
You will need: Paper, pencils, nine dice and a timer

Preparation: Roll three of the dice to generate a three-digit code number. Place this on the table for everyone to see.

Instructions: Roll the remaining six dice and display them in a line. Start the timer for three minutes. Using a pen and paper, the players must use the numbers in the line on the table to try and crack the code. They must use the six numbers to calculate and make the threedigit code number. Players can use any operation but each number may only be used once. At the end of the three minutes, the person who has correctly calculated the total or is closest to the total is the winner.

Game 9: Mischievous Monkey
Number of Players: 2
Difficulty Level: Hard
You will need: Pen, paper and two dice
Preparation: Make sure each player has a piece of paper to use for their scoreboard.

Instructions: Each player starts with a score of two on their scoreboards. They take it turns to roll the dice and multiply the current total on their scoreboard by the total on the dice to generate a new score. They can choose to take a turn once, twice or three times in a row before they pass the play over to the next player. However, if they roll a number one, their turn immediately ends and they must draw a monkey's face on their scoreboard. Play passes to the next player and player one's score remains the same, until they take their next turn. If on this turn, they roll a one again, they draw a second monkey face onto their scoreboard and their score drops back down to two. The winner is the first person to get to 500 or more points.

## Game 10: Claim Your Squares

## Difficulty Level: Medium/Hard

You will need: Squared Paper, two dice and some colouring pencils

Preparation: Print out a piece of squared paper. Make sure each player has a different coloured colouring pencil.

## Instructions:

Take it in turns to roll two dice and multiply the two numbers together to find the product. Next, draw an array on the squared paper to match the calculation, tessellating the arrays as you play. For example, if you roll a two and a six, the calculation would be $2 \times 6$, which makes a product of 12. You can either colour a one-by-twelve, two-by-six or three-by-four array (rectangle of squares).


The person who has claimed the most squares after six goes each is the winner.

## Game 11: Find the Difference

Number of Players: 2-4

## Difficulty Level: Easy

You will need: Two dice or spinner (1-6), some counters, paper and pen
Preparation: Draw a playing board on a piece of paper for each player (see image below).


| 0 | 1 | 2 | 1 |
| :---: | :---: | :---: | :---: |
| 2 | 3 | 0 | 3 |
| 1 | 0 | 5 | 4 |

Instructions: Each player takes it in turns to roll the dice and calculate the difference between each amount. They then cover that amount on their board with a counter. The player who covers all the squares on
their board first is the winner. counter. The player who covers all the squares on
their board first is the winner.

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## Game 12: Climbing the Mountain

Number of Players: 2-4

## Difficulty Level: Easy/Medium

You will need: A dice, a pencil and a piece of paper per player

Preparation: Before you start the game, each player needs to draw a mountain on their piece of paper with the numbers 1-5 ascending up one side, the number 6 on the peak and the numbers 5-1 descending down the other side (see image below).

## Instructions:

Players must roll each number that is shown on the mountain in order. So, because the first number is a 3 1, they must roll a one before climbing! Each number must be
 rolled in order, so there can be no jumping up the mountain if they roll a number that appears later. The winner is the first person to get up and over the mountain with a series of successful dice rolls.

Top Tip: To make the game harder, you could increase the size of the mountain climb to 10 or 20 and increase the number of dice rolled each time to two, three or four.

## Game 13: Divide and Conquer!

Number of Players: 2-4

## Difficulty Level: Hard

You will need: Paper and a pencil for each player and 6 dice Preparation: Choose one player to be the designated dice roller.

## Instructions:

The dice roller rolls all six dice. Players quickly add up the totals and aim to be the first one to call out the answer. If they are correct, they will score one point for this. Everyone writes the number on their paper. This becomes the dividend (the amount being divided). The second part of the game requires the dice roller to roll just one dice. This becomes the divisor (the number that the dividend is being divided into). The first player to call out the correct answer wins a point. The game repeats until one player has scored 5 points and they become the winner.

## Game 14: Double Trouble Bingo

Number of Players: 2-4
Difficulty Level: Medium
You will need: Paper, pencils and two dice
Preparation: Each player will need a piece of paper. They must choose 5 different numbers between 1-25 and write them on their piece of paper.

Instructions: Each player takes it in turns to roll two dice. They add the totals together and then double the answer. If the answer matches a number on their piece of paper, they cross it off. The first player to cross all their numbers off is the winner.

## Game 15: Pyramids

Number of Players: 2
Difficulty Level: Medium/Hard
You will need: Paper, pencil and a dice
Preparation: Each player will need to draw a pyramid (see image below).


Instructions: Throw a dice four times and fill in the bottom row of the pyramid. Now, complete the next row by adding the two boxes above each brick. Then, complete the row above this, following the same process and so on. The winner is the person who has the highest number at the top of the pyramid.

Top Tip: To make it harder, you could roll the dice three times and place those numbers in the second row of the pyramid. Now, the players must choose numbers to place above and beneath the dice numbers to make the pattern work. This may mean they need to use negative numbers.

## Game 16: The Multiplier

Number of Players: 2

## Difficulty Level: Hard

You will need: Paper, pencils, dice and a calculator to check answers

Preparation: Draw out a multiplication grid for each player (see image below).


Instructions: Each player rolls the dice nine times and writes each number in one of the squares. Then, each player multiplies the numbers across each row and writes the final product in the white circle in the last column. Next, each player multiplies each of the three numbers in the columns and places the product in the bottom circle of each column. Finally, each player multiplies the numbers in the three vertical circles and writes the answer in the star in the bottom right-hand corner of the grid. As a final check, multiply the three numbers in the bottom white circles what do you notice?

The winner is the player with the largest number in the star.

## Game 17: Fraction War

Number of Players: 2
Difficulty Level: Medium/Hard
You will need: A piece of paper, pencils and two dice per player
Instructions: Players roll both of their dice. The biggest number becomes the denominator of their fraction. The smallest number becomes the numerator of their fraction. E.g. if a 3 and a 1 are rolled, the fraction would be $\frac{1}{3}$. The players compare their fractions. The player with the highest-value fraction wins a point. Repeat the game. The first player to score 5 points is the winner.


## Game 18: Find and Sink

Number of Players: 2

## Difficulty Level: Medium

You will need: Two dice and two different colouring pencils

Preparation: Draw a 6-by-6 grid and label both axes with the numbers 1-6 (see image below). Draw a cross in 10 random squares on the grid.


Instructions: Players take it in turns to roll both dice to create a set of coordinates. They check these coordinates on the grid and if there is a cross placed in the grid reference, they shade the space in with their colouring pencil. Play continues until all crosses have been shaded in. The winner is the player who shaded the most crosses.

## Game 19: Rounding Race

Number of Players: 2-4
Difficulty Level: Medium/Hard
You will need: Six dice, a pen and paper per player

Instructions: Each player rolls their six dice and organises them to make a six-digit number, which they write on their piece of paper. Next, they round it to the nearest hundred thousand and the player with the lowest number scores 1 point. Continue to repeat the game until a player has scored 5 points to become the winner.

Top Tip: You can make this game easier by reducing the number of dice and rounding to a smaller number. For example, if you use three dice,


## Game 20: Staying Alive

Number of Players: 2-4
Difficulty Level: Easy

## You will need: Three dice per player

Preparation: Each player will use one of their dice to track how many lives they have during the game. At the beginning of the game, each player will start with six lives showing on their spare dice.

Instructions: In the first round, all players take their turn and roll the two dice. Each player's score in that round is calculated by adding the amounts on both of their dice. The player with the lowest roll in that turn loses a life and must change their spare dice accordingly (from 6 to 5 in the first round).

The game is continued and in each round, a player loses a life. When a player has lost all their lives, that player no longer participates in the game. The game ends when there is only one player left and all other players have lost all their lives.

