# 20 G@nes to Play with Dice 

## Maths Activity Booklet



Name

## 20 Games to Play with Dice

Many people only use dice when playing board games. However, there are many ways to have hours of fun playing games with a few dice and a piece of paper.
This resource provides you with 20 games that can be played with family and friends.

| 1 | 2 | 3 | 4 | 5 |
| :---: | :---: | :---: | :---: | :---: |
| Knockout <br> Players 2+ <br> Difficulty Easy <br> Maths Skill Addition <br> Dice Needed 2 <br> Aim of the Game: <br> Avoid throwing certain scores and being knocked out of the game. | Beat That! <br> Players 2+ <br> Difficulty Easy <br> Maths Skill Number recognition and place value. <br> Dice Needed 2 <br> Aim of the Game: <br> Aim to produce the largest number possible when rolling two dice. | Sit-Ups <br> Players 2+ <br> Difficulty Easy <br> Maths Skill Addition <br> Dice Needed 2 <br> Aim of the Game: <br> Score the lowest possible score to avoid the highest number of sit-ups in each round. | Stuck in the Mud <br> Players 2+ <br> Difficulty Easy <br> Maths Skill Addition <br> Dice Needed 5 <br> Aim of the Game: <br> Achieve the highest score when rolling 5 dice. However, if a 2 or a 5 are rolled, those dice are 'Stuck in the Mud'. | Round the Clock <br> Players 2+ <br> Difficulty Easy <br> Maths Skill Addition <br> Dice Needed 2 <br> Aim of the Game: <br> The first player to roll all numbers from 1-12 on the dice wins. |

20 Games to play with Dice

| 6 | 7 | 8 | 9 | 10 |
| :---: | :---: | :---: | :---: | :---: |
| Even the Scores Players 2+ Difficulty Easy Maths Skill Addition Dice Needed 2 <br> Aim of the Game: The first player to roll all even numbers from 2-12 on the dice wins. | Higher or Lower Players 2+ Difficulty Easy Maths Skill Place Value Dice Needed 2 <br> Aim of the Game: Successfully roll the dice 10 consecutive times, correctly guessing whether the next roll will be higher or lower than the last. | The Roll Race <br> Players 2+ <br> Difficulty Easy <br> Maths Skill Addition and Subtraction <br> Dice Needed 2 <br> Aim of the Game: <br> There are 12 sections on a picture to colour. Take turns rolling the dice. The first player to completely colour their picture wins. | Dice Battle <br> Players 2+ <br> Difficulty Easy <br> Maths Skill Addition <br> Dice Needed 20+ <br> Aim of the Game: <br> This game requires a large number of dice. Whoever rolls the highest amount gains dice in this battle of chance. | Tower Power <br> Players 2+ <br> Difficulty Easy <br> Maths Skill Addition <br> Dice Needed 2 <br> Aim of the Game: <br> Add up the dice and stack cubes to make a tower. The winner builds the tallest tower. |

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| 11 | 12 | 13 | 14 | 15 |
| :---: | :---: | :---: | :---: | :---: |
| Players 2+ <br> Difficulty Medium <br> Maths Skill Addition <br> Dice Needed Up to 5 <br> Aim of the Game: <br> Roll up to five dice with the aim of scoring as close to 21 as possible. | Calculations <br> Players 2+ <br> Difficulty Medium <br> Maths Skill Four Operations <br> Dice Needed 3 <br> Aim of the Game: <br> Roll three dice. How many calculations can you create using the amounts rolled? More calculations mean more points. | Make 20 <br> Players 2+ <br> Difficulty Medium <br> Maths Skill Number Recognition <br> Dice Needed 2 <br> Aim of the Game: Roll the dice. Add or subtract the amounts to help make 20. The first to make 20 wins. | Dotty Six <br> Players 2+ <br> Difficulty Medium <br> Maths Skill Addition \& Subtraction <br> Dice Needed 2 <br> Aim of the Game: <br> Using a 3 by 3 grid, the first to complete a line of three sixes wins. | Tug of War <br> Players 2+ <br> Difficulty Medium <br> Maths Skill Addition \& Subtraction <br> Dice Needed 2 <br> Aim of the Game: <br> Start in the middle. One adds. One subtracts. The first player to reach the beginning or end of the number line wins 'Tug of War'. |

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| 16 | 17 | 18 | 19 | 20 |
| :---: | :---: | :---: | :---: | :---: |
| Table for 2 <br> Players 2+ <br> Difficulty Medium <br> Maths Skill Addition, Subtraction and Multiplication <br> Dice Needed 2 <br> Aim of the Game: <br> Every player starts on the number 2. The aim is to roll every number in the two times table before your partner. | Honeycomb Hexagons <br> Players 2+ <br> Difficulty Hard <br> Maths Skill Addition and Subtraction <br> Dice Needed 2 <br> Aim of the Game: <br> Roll both dice. Add or subtract the numbers rolled to cover a number on the Honeycomb Hexagons board. First to reach the other end of the board wins. | Drop Zone <br> Players 2+ <br> Difficulty Hard <br> Maths Skill <br> Multiplication <br> Dice Needed 1 <br> Aim of the Game: <br> Roll the dice onto the Drop Zone board. Multiply the numbers and keep a running total. The highest total wins. | Make 50 <br> Players 2+ <br> Difficulty Hard <br> Maths Skill Addition \& Subtraction <br> Dice Needed 3 <br> Aim of the Game: <br> Roll the dice. Add or subtract the amounts to help make 50. The first to make 50 wins. | Four-In-A-Row Game <br> Players 2+ <br> Difficulty Hard <br> Maths Skill Four <br> Operations <br> Dice Needed 3 <br> Aim of the Game: <br> Roll three dice. Add, subtract multiply or divide the numbers rolled to connect four on the game board. |



## Knockout

Before the game starts, decide on a score needed to win.

1. Each player chooses a 'Knockout' number. (e.g. 6, 7,8 or 9 ).
2. Players take turns throwing both dice.
3. Add the numbers on both dice to give a total score.
4. If a player hits the 'Knockout' number, they lose the game.


## Beat That!

1. Each Player takes turns rolling two dice.
2. When a player has rolled the dice, they should place the dice in the order that will produce the largest number possible. For example, if a player rolled a 2 and a 5 , they may choose 52 as their number to beat as that is a larger number than 25.
3. After each throw, player one challenges player two to 'Beat That'.
4. Play this game in rounds, assigning a winner of each round.

## Sit-Ups

1. Each Player takes turns rolling two dice.
2. Add up the total amounts shown from both dice.
3. Whoever scored the highest amount performs the number of sit-ups they rolled.

## Stuck in the Mud

In this game, you can only score on a roll which does not include the numbers 2 and 5.

1. Choose a player to start and agree on a number of rounds you are going to play ( 5 works well).
2. Roll five dice. If you rolled a 2 or a 5, those dice are now 'Stuck in the Mud'.
3. When you do not roll a 2 or a 5, add up the total of the dice and remember it.

4. Roll the remaining dice, adding the totals until all your dice are 'Stuck in the Mud'.
5. Record your total and allow your partner to play.
6. The highest total at the end of the game wins the round.

## Round the Clock

1. Start by taking it in turns to roll two dice.
2. Use addition or subtraction in the quest to fill all hours on the clockface.

For example, if a 6 and a 4 are rolled, 10 or 2 could be covered on the clock face.
3. The first person to cover the hours 1-12 wins.


## Even the Scores

1. Take it in turns to roll one or two dice, depending on the number you are aiming to get on your board.
2. If you choose to roll two dice, add up the total amounts shown on both dice.
3. If you roll an even number, mark off the number you have rolled and roll again.
4. If you roll an odd number, hand the dice over to your partner for them to take their turn.
5. Repeat the game until one player has covered all of the even numbers on the board.

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

## Higher or Lower



1. Take it in turns to roll two dice, adding up the total.
2. Guess whether the next roll will make a number that is higher or lower than the last.
3. Aim to consecutively move ten times up the board from start to finish.
4. If you guess incorrectly, it's your partner's turn to play.

| 1 <br> START | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 <br> FINISH |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## The Roll Race

1. Take it in turns to roll two dice.
2. Use addition and subtraction skills to colour in each section on the racetrack. For example, if a 6 and a 4 are rolled, either $10(6+4)$ or $2(6-4)$ could be coloured in on the racetrack.
3. The first player to travel round the track is the champion.

4. You must travel clockwise around the track.


## Dice Battle

1. Grab as many dice as you have from every board game around the house.
2. Each player starts by throwing two dice each. The rest of the dice are placed in the middle.
3. Once each player has rolled, the highest score gains a dice from the middle.
4. Repeat the same until all dice are removed from the middle.

5. Whoever gains the most dice wins.

## Tower Power

1. Each player rolls a dice twice, adding together the numbers they get in each roll.
2. Players build a tower using the same amount of blocks as their total.
3. Repeat, in turns, until your tower is about to collapse.
4. The winner is the player who has the tallest tower.
5. If your tower collapses, you lose this round.


## 21

For this game, you will need access to 5 dice but you may not need to use them all in each turn.

1. Roll the first three dice and add up your score so far.
2. Make a decision: Stick or twist? If you stick, your partner has to beat your score.
3. If you twist, roll another die and add your total.

4. Decide again whether to stick or twist, before your partner tries to beat your score.
5. At the end of each turn, the player whose score is closest to 21 wins.

## Calculations

1. Roll a die three times.
2. How many calculations can you create with the numbers you rolled?
3. The winner is the player who accurately creates the most calculations.


## Make 20

1. Take turns to roll two dice.
2. Add or subtract the numbers rolled to give a total for each turn, with the aim of getting to a total score of 20 .
3. Continue rolling, adding and subtracting until your total score is as close to 20 as possible.
4. When scoring, you can be one point under but not one point over 20.

5. At the end of each round, the player closest to 20 is the winner and gains a point.

## Dotty Six



1. Draw a 3 by 3 grid and choose one coloured crayon for each player; where possible, each player should have a different colour.
2. Take turns rolling a dice, drawing the number of dots you rolled into one of the spaces on the grid.
3. The aim of this game is to have six dots in a square and three sixes vertically, horizontally or diagonally.


## Tug of War

1. Draw a number line like the example given and circle the number 14.
2. Player 1 moves their counter to the right of number 14 and Player 2 moves their counter to the left of number 14.
3. Take it in turns to roll two dice, adding the two numbers rolled.

4. Move your counter in your direction.
5. If their counter reaches 27 first Player 1 wins the game. If their counter reaches 1 first then Player 2 wins the game.


## Table for 2

1. Every player starts on the number two.
2. Take turns rolling two dice.
3. Use addition and subtraction skills to make numbers in the two times table using the numbers you have rolled on the dice.
4. The winning player is the first to tick off every number in the two times table.


## Honeycomb Hexagons

1. Players take it in turns to roll two dice.
2. On their first turn, players must make a number on the first column of the Honeycomb Hexagons board ( $1,6,0$ or 5 ) by adding or subtracting the numbers rolled.
3. On their next go, they must make a number on the next column of the Honeycomb Hexagons board ( $9,4,8,3$ or 7 ) and so on.
4. The first player to successfully move from one side of the board to the other wins.


## Drop Zone

1. Take turns rolling a die onto the Drop Zone board.
2. When the die settles, players must multiply the number shown on the die by the number it landed on the board.
3. The larger the total, the more points you gain.
4. Players add up their total scores after five turns.
5. The player with the highest score wins.


## Make 50

1. Take turns to roll three dice.
2. Add or subtract the numbers rolled to give a total for each turn, with the aim of getting to a total score of 50 .
3. Continue rolling, adding and subtracting until your total score is as close to 50 as possible. Each player can roll up to ten times.
4. When scoring, you can be under but not one point over 50.
5. At the end of each round, the player closest to 50 is the winner and gains a point.


## Four-In-A-Row Game

1. Take turns when rolling three dice.
2. Add, subtract, multiply or divide the three amounts to match a number on the game board.
3. The first player to connect four numbers on the game board wins.

| 1 | 8 | 3 | 0 | 7 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 6 | 2 | 9 | 1 | 11 |
| 12 | 1 | 5 | 0 | 4 | 5 |
| 2 | 7 | 8 | 2 | 6 | 3 |
| 10 | 0 | 4 | 3 | 1 | 7 |
| 3 | 9 | 1 | 6 | 2 | 5 |

