KS2 Maths Dice Games

Nice or Nasty Games

Find a partner and a $1–6$ dice, or even a $0–9$ dice if you have one.
Each of you draw a set of four boxes like this:

Game 1

Take turns to roll the dice and decide which of your four boxes to fill. Do this four times each until all your boxes are full. Read the four digits as a whole number.
Whoever has the larger four-digit number wins.
Scoring: A point for a win. The first person to reach 10 wins the game.

Game 2: Whoever makes the smaller four digit number wins.

Game 3: Set a target to aim for. Then throw the dice four times each and work out how far each of you is from the target number. Whoever is the closer wins.

Game 4: This game introduces a decimal point. The decimal point will take up one of the cells so this time the dice only needs to be thrown three times by each player. The winner is the one closer to the target. Choose a target.
Two possible versions:

- each player decides in advance where they want to put the decimal point before taking turns to throw the dice
- each player throws the dice three times and **then** decides where to place the digits and the decimal point.

Game 5: This is the nasty version!

Play any of the games above. This time you can choose to keep your number and put it in one of your cells, **OR** give it to your partner and tell them which cell to put it in. You might lose a friend this way! It's really important to take turns to start each round if this game is going to be fair.

Game 6

A cooperative game rather than a competitive one - for three or more people.

Choose any of the games above. Decide in advance which of you will get the closest to the target, who will be second closest, third, fourth etc. Now work together to decide in whose cells the numbers should be placed, and where.

Dicey Addition

Find a partner and a 0-9 dice.

Game 1

Each of you draw an addition grid like this:

Take turns to throw the dice. After each throw of the dice, you each decide which of your cells to put that number in.

Throw the dice four times until all the cells are full.
Whoever has the sum closer to 100 wins.
Variations: Add two 3 digit numbers and the winner is closest to 1000, or two 4 digit numbers and the winner is closest to 10,000, etc.
Scoring: A point for a win. The first person to reach 10 wins the game

Game 2

Each of you draw an addition grid like this:

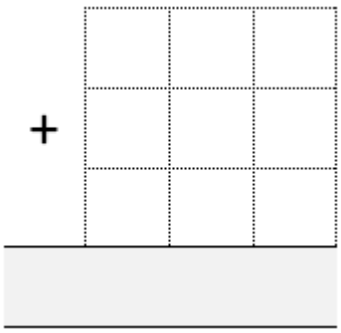
Take turns to throw the dice, until it has been thrown four times in total. After you have collected all four numbers, each player must decide where to place them on his/her own grid.
Whoever has the sum closer to 100 wins.

Dicey Operations

Find a partner and a 1-6 dice, or preferably a 0-9 dice if you have one.

Take turns to throw the dice and decide which of your cells to fill.
This can be done in two ways: either fill in each cell as you throw the dice, or collect all your numbers and then decide where to place them.

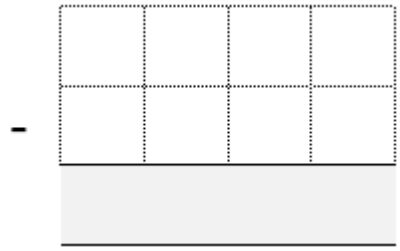
Game 1: Each of you draw an addition grid like this:



Throw the dice nine times each until all the cells are full.
Whoever has the sum closest to 1000 wins.

- A point for a win. The first person to reach 10 wins the game.You can vary the target to make it easier or more difficult.

Game 2: Each of you draw a subtraction grid like this:



Throw the dice eight times each until all the cells are full.

Whoever has the difference closest to 1000 wins.

- A point for a win. The first person to reach 10 wins the game.

Game 3: Each of you draw a multiplication grid like this:

Throw the dice four times each until all the cells are full.

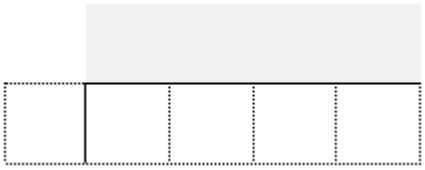
Whoever has the product closest to 1000 wins.

- A point for a win. The first person to reach 10 wins the game.

You can vary the target to make it easier or more difficult. For example, you could do 3d x 2d and whoever has the product closest to 10,000 wins.

You could introduce a decimal point. The decimal point could take up one of the cells so the dice would only need to be thrown four times by each player. You will need to decide on an appropriate target.

Game 5: Each of you draw a division grid like this:



Throw the dice five times each until all the cells are full.

Whoever has the answer closest to 1000 wins.

Variations: Divide a 4d number by a 2d. **Whoever has the answer closest to 100 wins.**

Simple Times Table Games

Bingo

Work with your child to accurately write down the times table they are trying to learn. Then, draw out a 3 x 2 grid and ask them to write down 6 of the products from the times table. You should call out different times tables and if the answer is on their bingo card, they can cross it out. Try to vary your vocabulary, for example, times, multiplied, groups of, lots of. If they get 3 in a line, they should shout 'line' and if they get all 6, they should shout 'bingo'! This game also works for division facts if the children write down 6 quotients.

Post- it Pairs

Write down the times table facts on separate post-its. 3 x 4 should be written on one post-it and 12 should be written on another. All should be turned over and put face down on the table. Then you and your partner should take turns in turning over 2 cards at a time. If the 2 cards match, you keep the cards. If they don't, then place them back onto the table. Winner is the person with the most cards at the end of the game. You could use different colours for the calculations and the products to make the game easier. There is an interactive version of this game here: https://nrich.maths.org/1252

Beat the Clock

Use the post its from the previous game to challenge children to answer the question, or in the case of the products, say the question. See how many they can do in a minute, or two and challenge them to beat it. Give them a few minutes to practise independently, then try again.

Use Coins

Use a stack of coins – at least a dozen each of 1p, 5p and 10p, and preferably two dozen 2p, will let you make up a full set of tables to 12x12 for the occasions when your child might need to go back and check by counting.

Card Challenge

A pack of cards – take out the aces and Kings, count Jack as 11 and Queen as 12, and you can practise the full range of tables by dealing your child two cards and asking them to multiply them.