

Activities and games to support maths learning

The games listed below will help children to develop their number sense, which is their ability to use and understand numbers effectively. All of the games use simple equipment and can be made easier or more challenging by making simple adaptations. As you play these games, discuss how they calculate their answers.

Roll away! (For 2 or more players)

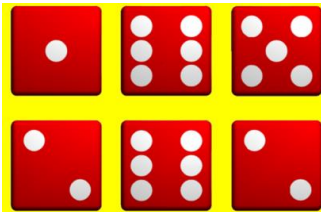
You will need: 2 dice

Roll two dice at the same time and find the difference between the numbers. Record your score. Then your partner takes a turn. After each go, every player must keep adding the difference to their score. The winner is the first player to reach a score of 50.

Make 20 (For 2 players)

You will need: 6 dice

Player one rolls all six dice and sees which numbers they can make using addition starting from 1. You can use any combinations of the dice that have been rolled and you have to try and make the numbers consecutively from 1-20. When a player can't make anymore the next player starts their turn. The winner is the first to get to 20.



If this is your roll, you have a 1, so you can start. You have a 2, then you can make a 3 by adding the 2 and the 1 together. You can make a 4 using the two 2s. There is a 5 and a 6. 7 can be made by adding 6 and 1. You then continue working through all of the numbers and see if you can make them. Whichever number is the highest number you can make, that is your score for that turn. The other player must

then have their turn.



If this is your roll, you cannot start as you do not have a 1. Your score for this go is zero. It will then be your partners' turn.

Total challenge (For 2 or more players)

You will need: 6 dice

Roll 1 dice and keep the number in your head. Roll 2 dice and add them to the previous number. Roll 3 dice and add them to the previous number. Roll 4 dice and add them to the previous number. Roll 5 dice and add them to the previous number. Roll 6 dice and add them to the previous number. The highest scorer on each round earns a point and the overall winner is the one with the most points at the end of the game.

Take 100 (For 2 or more players)**You will need: 1 die**

Each player starts with a score of 100. Every time a player rolls a dice, they must take that number away from 100. This continues until one player ends up with a score of zero, this player is then the winner!

Beat it! (For 2 or more players)**You will need: 2 dice**

Roll two dice and use the two numbers rolled to create the largest possible number you can e.g. if you roll a 2 and a 5, the largest possible number would be 52. Your partner must then try and get a higher score when they roll their dice. The person with the highest score wins a point. The overall winner is the first player to answer 15 questions correctly. More dice can be used to create larger numbers. You can also use a pack of cards or dominoes if you wish.

Domino Boo (For 2 or more players)**You will need: A set of dominoes**

Turn over two dominoes at the same time. Players must add the numbers together and shout out the answer. The player that shouts out the correct answer first, wins the point. This can be extended to turning over three or more dominoes each time. The winner is the player with the highest number of points at the end of the game.

Mine! (For 2 players)**You will need: A pack of cards**

Split a pack of cards in half and give each partner half. You must take it in turn to turn over a card each at the same time. Each player must then add the two numbers together mentally and then shout out the answer, followed by the word 'Mine!' The quickest person to say the answer correctly, collects the cards. The winner of the game is the person that ends up with the most cards. This can be extended further by turning over two cards, or even three cards at anyone time. An alternative is to play this game using dice or dominoes.

Keep on rolling (For 2 or more players)**You will need: 3 dice**

Roll all of the dice and keep the highest number. Roll the remaining dice and again set aside the highest. Roll the last die, and add up your total. Write down your score. The winner is the player that ends up with the highest score. You could extend this by multiplying the numbers together instead of adding.

Number line mystery challenge**You will need: Paper and a pencil**

Draw a line on a piece of paper. Write a beginning number and an end number. The beginning and end numbers could be any numbers you like e.g. 0-10, 0-100, 20-30 or 25-1000. Draw a mystery arrow somewhere on that line. Ask the child to explain to you what the number could be and why they think this. You could extend their thinking further by asking them to tell you a number that it definitely couldn't be and explain why. This activity provides children with a great opportunity to discuss and develop their mental calculation strategies.

This activity can be made more challenging by drawing a line with a mystery arrow on it but no beginning or end number. Ask the child what the beginning number and end numbers could be. Then they can discuss what the mystery number could be.