



## Activities to do at Home

### Card Games

#### Addition Snap

Equipment Required: Cards 1 (ace) – 9 and 2 players.

Players divide the cards evenly. At the same time each player turns over 1 card. Players add the 2 numbers together as quickly as possible and say the answer aloud. The player who says the correct answer first, keeps the 2 cards. Play continues until 1 player collects all the cards.

#### Make 10

Equipment: A pack of cards 1 – 10. One player deals out 10 cards and places them face up in a row. The first player then looks across the row of cards for combinations that add up to 10 (any number of cards is fine). Only 1 combination can be removed. The aim of the game is to collect as many cards as possible, so combinations that require more cards are favoured. Once a combination of cards has been removed the cards are replaced with new ones from the pack. Play continues until there are no more cards or combinations to 10. The winner is the player with the most cards.

#### SNAP!

Divide the cards amongst the players. Snap the cards that are the same.

Variations:

Snap the cards that come after the one played

Snap the cards that come before the one played

Snap the cards that add up to 10

#### Fish

Deal out 7 cards to each player. Each player finds pairs of numbers from their hand and places them down in front of them. Player 1 asks the player sitting to their left if they have a card that matches one of theirs so that they can make a pair. If they do have the card, they give it to player 1. If they do not have the card, they say 'fish' and player 1 picks a card from the pack. Play continues in this way. After all the deck has been used, players count the number of pairs they made. The winner is the one with the most number of pairs.

#### 24

Deal out all the cards, an equal number to each player. The person to the dealer's left goes first and the game continues clockwise. The first person turns over a card and places it face up in the centre of the play area. The next player turns over a card and adds it to the card already played, says the sum out loud, and places the card on top of the previously played card. The next player turns over a card and adds the sum of the first 2 cards. Play continues in this way until someone adds a card that makes 24 or more. If the sum is exactly 24 the player wins. If the sum is over 24 the value of the card is taken away from the previous total. Play continues until someone gets a total of exactly 24.

#### Addition and Subtraction

Equipment Required: Cards 1 (ace) – 10

Players divide the cards evenly between themselves and place 1 card face up in the middle. The first player places a card next to the card in the middle. If it is a black card the cards are added together. If it is a red card subtract the number from the previous total.

### **Add or Subtract**

Start with a selected 2 - digit number such as 35. Players take turns to turn over a card. If the card is black it is added to the number (35). If the card is red, the number of the card is subtracted from the number. Play continues by adding or subtracting the card turned over from your total. The player with the highest number at the end of the game is the winner.

### **Card Calculations**

Equipment Required: Pack of cards 1 – 9

Each player is dealt 4 cards face up. Each player then tries to make a number sentence which gives a single digit answer using their four cards. The answer becomes the score for that player. For example, if the 4 cards were 2,6,3 and 7 answers could be:

$$7 + 3 + 2 - 6 = 6 \text{ 6 points}$$

$$6 + 7 - 3 - 2 = 8 \text{ 8 points}$$

$$36 - 27 = 9 \text{ 9 points}$$

The winner is the player with the largest score after five rounds.

### **Salute**

Equipment Required: a short deck 2 – 10, 3 players.

Deal one card each, face down. When the dealer says 'salute', each player raises the card to his/her forehead. The deal states the total of the cards. Each player has to determine the value of the card being held to his or her forehead by looking at the other person's card and subtracting the amount from the total. This can also be played with multiplication.

Flip 4 and add

The first player flips 4 cards to make two 2-digit numbers and adds these together. The next player also flips 4 cards and adds the two 2-digit numbers together. The player with the largest number gets a point. The player with the most points win.

Variations: Flip 6 cards and make two 3-digit numbers and add together.

### **Make 20**

Players are given 4 cards each. Using any of the four operations (division, multiplication, addition or subtraction) the player tried to make a total of 20. If the player makes exactly 20, they score 10 bonus points for making 20 plus their score of 20 (30 altogether). The next player has their turn. If they are unable to make 20, their score is the number they have made that is less than 20. Play continues with players trying to make 20 with another 4 cards. After each turn the scores are added to the player's total. The first player to reach 200 is the winner.

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## Dice Games

### Dice Multiplication

Roll 2 dice, multiply and find the answer. Record the multiplication sentence.

### Cross Out

An activity for 2 players. Each student writes the numbers 2,3,4,5,6,7,8,9,10,11 and 12 on a whiteboard. Take turns to roll two regular dice, add both numbers rolled and cross out the total on your whiteboard. The first player to cross out all the numbers is the winner.

### Take 100

Each student begins with 100 points. In turns, students roll a regular dice and subtract the number from their 100 points. The first player to reach zero is the winner.

### Dice Addition

Add 3 regular dice and find the total. Try to find quicker ways of adding the numbers e.g. doubles, doubles plus 1, doubles less 1, combinations to 5 and combinations to 10.

### Make 24

This game requires only 1 dice. The player throws the dice repeatedly, listing the numbers thrown in columns as follows:

1	2	3	4	5	6
1	2		4		6
	2		4		
	2				

The player has to keep a running total of each column and stop when one of the columns reaches exactly 24 (the fifth column will never reach 24). Players play the game several times and compare their findings.

### Bonds to ...

Throw 1 dice many times. Keep adding each time to get EXACTLY 20. If your score adds to more than 20 you are bust! Start again.

Variations: Add to 30, 50 or 100.

### How many to ...

Throw 2 dice, add the numbers together, say how many more you need to make 20.

Variations: Say how many more to add to 25,30,50 or 100.

### Double, Halve or Stay

Equipment – 2 different coloured regular dice.

An activity for 2 – 4 players. Decide on one coloured dice to represent the tens and the other to represent the ones.

Choose a target number between 5 and 122. Player takes turns to roll the dice. Once the dice are rolled a number is formed. The player then makes a decision to produce a number that is as close as possible to the target number. They can choose to:

Double their number

Halve their number

Keep the number as is

The player closest to the target is the winner.

### Make 100

Equipment required – 2x regular dice, whiteboard and marker.

An activity for 2 players. This aim is to make a total of 100 or as close to 100 as possible. Players take turns to roll the two dice and combine the numbers with any operation to produce a score. The player who reaches 100 or is closest to 100 is the winner. Record your choices and calculations.

### Total Three

Equipment – 2 regular dice, whiteboard and markers.

An activity for 2 players. Players take turns to roll the two dice and complete the following calculations on each roll:

Add the 2 number shown on the dice

Find the difference between the two numbers

Multiply the two numbers

Add the three numbers to produce the score for that round

For example:

$$6 + 3 = 9$$

$$6 - 3 = 3$$

$$6 \times 3 = 18$$

$$\text{Score} = 9 + 3 + 18 = 30$$

### Make 12

Equipment Required: 1 dice, whiteboard, marker. Work in pairs.

The aim of this game is to add numbers to make a total of 12 in each box. You need to get three boxes in a line (up, down, diagonal) to end the game.

Draw a 3x3 grid on your whiteboard:

Take turns to throw the dice and write that number in one of the boxes on the grid.

When it is your turn, keep adding numbers to a box until it adds to EXACTLY 12. If the number on the dice will make the numbers add to more than 12, you will need to put that number in another box. When a box adds to 12, you can put a line through the box.

Keep going until there are three filled boxes in a row or column or diagonal. The game finishes when this happens.


## Dominoes

### Number Match

Work in pairs. Each pair of students is given a number between 15 and 30. Each student finds 4 dominoes that altogether have a total matching the number on the card. Students record number sentences.

### Compare Decimals

Students choose 2 dominoes and turn them over. One side is the whole number; the other side is the decimal. Compare both dominoes. The partner with the greatest decimal gets to keep both dominoes. The winner is the player with the most dominoes at the end of the game.

### Ordering Products

Choose 5 dominoes, turn them over, and multiply each side together. Order the products from least to greatest or greatest to least. Find the difference between greatest number and least number. The partner with the greatest (or least) difference wins.

### Multiplication War

Begin with dominoes face down. Each student chooses a domino. On the count of three, students turn over their domino and multiply the dots on one side by the dots on the other side. The student with the highest product wins the dominoes.

### **Even/Odd Sort**

Add, subtract, or multiply the dots on the dominoes then sort the answer by odd or even numbers.

### **Domino Doubles**

In pairs, flip the domino over and double the amount of dots you see on both sides. The first person to say the answer gets to keep the domino. The winner is the person who ends up with the most dominoes.

### **Domino Multiplication**

Multiply each side of a domino and find the product. Record the multiplication sentence on a whiteboard.

How many?

Working with a partner, quickly flash the domino dot cards to your partner and ask how many? Discuss the strategies used to figure out how many with a partner.

### **I'm thinking of a domino that ...**

Lay all of the dominoes face up. Choose which one will be your secret domino but don't announce it out loud. Give clues such as "one side of the domino has twice the number of dots as the other does" or the domino has a total number of dots less than 8" or "one side of the domino has an odd number of dots, the other has an even number of dots". For each clue given, remove the dominoes that does not meet the criteria.

### **Which is Missing?**

Take 2 dominoes. Announce the total number of dots and then show your partner one of the dominoes. Ask how many dots must be on the other domino.

### **Domino Keepers Addition**

A game for 2 players (or 2 teams). All of the dominoes are placed in the centre face down. Both players pick up a domino at the same time. Each player tells the sum of the dots on their domino. The player with the highest answer keeps both dominoes. If both players have the same answer, each keeps a domino. The winner is the player or team with the most dominoes when all dominoes have been picked up.

### **Domino Keepers Multiplication**

A game for 2 players (or 2 teams). All of the dominoes are placed in the centre face down. Each player picks up a domino at the same time. Each player tells the multiplication product of the dots on their domino. The player with the highest answer keeps both dominoes. If both players have the same answer, each keeps a domino. The winner is the player or team with the most dominoes when all dominoes have been picked up.