## Resources -

$2 \times 1-6$ die
Paper or whiteboard to record calculations


## Games Booklet

## Race to 500 - Multiplication and addition facts

## Resources -

$1 \times 1-6$ die


Paper or whiteboard to record calculations

Objective of the game - Be the first to make 500

## Method -

1. Take turns rolling one die and multiply the number by 10 . Record this on a piece of paper.
2. Roll again, and add it to the first total.
3. The first player to reach 500 without going over wins.
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## Method -

1. Each player rolls the dices, multiplies the two numbers that come up and records the product on a piece of paper
2. Repeat 8 times.
3. After 8 rounds, each player adds up their products for their final total.
4. The winner is the person closest to 100.


Produced by Mrs Quine

## Ladders - Place Value

## Resources -

The number of dice used should match whatever place value you are working on. So if you're focusing on hundreds, partners need three, or for ten thousands, partners need five

Objective of the game - Fill in your ladder accurately first.

## Method -

1. Each player draws a ladder with 6 rungs ( 7 spaces).
2. Players take turns to roll the dice and use the digits to make a $2 / 3 / 4 / 5$-digit number. For example, Player 1 rolls 6 and 8 . He can make 68 or 86.
3. Players write their chosen number in one of the spaces on their ladder. The aim of the game is to fill in your ladder first accurately.
4. Players continue to roll the dice and add numbers to their ladder, keeping a sequence of smallest to biggest (bottom to top).
5. The first player who fills their entire ladder is the winner.

There will be times when a player is unable to write a number on their ladder, they simply miss their turn. For example, a player with the ladder above rolls a 5 and a 6 , there is nowhere to put 56 or 65 , so they miss their turn.


## Variations

- Rolling two dice to make numbers with decimals, eg. 6 and 6 are rolled. Possible numbers are 5.6 and 6.5
- Varying the number of rungs on the ladder.
- Using fewer or more dice to suit ages and abilities.
- Using a 6-sided dice
- Having students record all possible numbers from their rolls, not just the one they are using.
- Giving students the lowest number and the highest number on the ladder. Students make and order numbers within the given range.


## How Close to 100? - Multiplication and addition facts

## Resources -

2 dice
Recording sheet - https://youcubed2.wpenginepowered.com/wp-content/uploads/2017/03/How-close-to-100-handout.pdf


Objective of the game - To get as close to 100

## Method -

1. This game is played in partners. Two children share a blank 100 grid
2. The first partner rolls two number dice.
3. The numbers that come up are the numbers the child uses to make an array on the 100 grid.
4. They can put the array anywhere on the grid, but the goal is to fill up the grid to get it as full as possible.
5. After the player draws the array on the grid, she writes in the number sentence that describes the grid.
6. The second player then rolls the dice, draws the number grid and records their number sentence.
7. The game ends when both players have rolled the dice and cannot put any more arrays on the grid.
8. How close to 100 can you get?

## Variations -

Each child can have their own number grid. Play moves forward to see who can get closest to 100.

## Close Call - Addition facts to 100

## Resources -

1 pack of cards (remove the 10s and face cards from the deck).

Objective of the game - To have the most points after 5 rounds

## Method -

1. Shuffle and deal each player 6 cards.
2. Players choose 4 of their cards to make two 2-digit numbers to add together to get as close to 100 without going over
3. Arrange cards so all can see your addition problem
4. Each player adds their numbers and records their total.
5. The player with the sum closest to 100 without going over wins a point.
6. In the case of a tie, each player gets a point
7. Shuffle the cards and deal again.
. The player with the most points after 5 rounds is the winner.

## Variations

- Players can select only 2 cards to create single digit numbers, and the goal is to reach 10 or 15 , or keep it the same and multiply the numbers.
- Deal 8 cards and players choose 6 cards and create a 3-digit numbers.
- Set the goal to 1,000 .


## Pay the bank - Exchanging Game

## Resources -

$1 \times 1-9$ die
$30 \times 1 \mathrm{p}$ coins
$10 \times 10 \mathrm{p}$ coins


## Objective of the game -

To be the first to give the bank all your money

## Method -

1. Give each player some 10 p and 1 p coins, e.g. 23p
2. You are the bank and you keep the rest of the coins.
3. Player 1 rolls the die and has to give the bank the number of pennies rolled on the die. If they do not have enough pennies, they must ask the bank if they can regroup 10 p as 10 1 p coins.
4. The next players repeat step 3 .

## Making Ten - Number bonds to 10

## Resources -

1 pack of cards (remove the face cards from the deck).

Objective of the game - To use any many cards as possible to
 make equations that equal 10

## Method

1. Place cards face down in a pile
2. Each player chooses 5 cards and places them face up in front of him.
3. Players use as many cards as possible to make equations that equal 10
4. You can just do addition or do both addition and subtraction. For example: If my cards are $9,5,1,8,2 I$ might say $9+1=10$ and $8+2=10$ as well as $9+2-1=10$.
5. Keep the cards you did not use and lay aside the used cards
6. Play passes to the next player.
7. Next round, fill out your hand to 5 cards and go again.

## Variations

Make 15 by adding in the face cards. You can also bump up the number of cards in your hand to 7 .

## Pig - Addition facts to 12

## Resources -

## 2 dice

Paper to keep score


Objective of the game - Be the first one to reach 100 points

## Method -

1. Players take turns rolling two dice and finding their sum. On a turn, a player can keep rolling - be a PIG - and add to their score. But beware - if a player rolls a 1 on either dice, all points for that turn are lost.

Examples:


Joe rolls
so his is 5 .


Now his running score is 11 . He can stop at 11 or keep going

He rolls one more tim
 for 9 points
Now his score is 20 . He decides to stop and keep 20
for his score that round.

for 11 points. She rolls one
2. Jane rolls
more time and gets a


Since she rolled a 1, her score is 0 for that round
3. Continue until someone reaches 100 points.

## Shut the box - Addition to 12

## Resources -

## 2 dice



Objective of the game - The aim of the game is to turn over all the cards.

## Method -

1. To play the game, start with the numbers showing on all the cards.
2. The first player rolls the two dice.
3. They can turn over the cards which are the same as the numbers rolled.
4. For example, if a 4 and 5 are rolled, they would turn over the 4 and 5 cards. If a double is thrown, the player's turn ends. They can roll the dice again until they can't turn over any more cards. The cards that are left showing are then added and that is their score.
5. The dice are then passed to the next player who turns the cards the right way up again and then rolls the dice in the same way as player one. They now can keep on rolling dice as long as each time they can turn over some new cards. Remember that if a double is thrown, the player's turn ends. When the player can't turn over any more cards, those that are left are added together and that is the player's score.
6. The winner is the person with the lower score.

## Question ideas -

Can you explain your strategy?
What is good about the game? What is not so good? Why?
How could you alter the rules to make it better?

