Board games

This is taken from Mathematics in Schools March 1987.

I suggest setting it up as a carousel using four to six different games and getting pupils to work in pairs (so that at any one time there would be two or three pairs working on the same game independently)

Pupils will need to draw a game board in their books (5 \* 5 grid)

Write random arrangements of digits in the boxes.

These boards can then be used for a variety of number games.

Here are some examples:

All the games are for two players both of whom have a set of counters of their own colour. Games 1 and 2 require the use of one game board only.

Examples of game boards:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3 | 8 | 1 | 6 | 1 |
| 2 | 4 | 8 | 2 | 5 |
| 7 | 0 | 5 | 3 | 9 |
| 2 | 7 | 4 | 9 | 3 |
| 1 | 4 | 6 | 7 | 0 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 4 | 9 | 5 | 6 | 2 |
| 7 | 1 | 8 | 9 | 6 |
| 4 | 0 | 5 | 0 | 3 |
| 7 | 5 | 1 | 3 | 7 |
| 9 | 2 | 8 | 6 | 8 |

# Game 1 (Using one board)

Use two sets of cards , each numbered 1 to 10.

The cards are shuffled and placed face down in a pile.

Players agree on a two digit target number, say 42.

Player A turns over the top card, say it is 8. S/he divides 42 by 8 , finds the remainder 2 and places a counter on a square containing 2.

Player B then takes her/his turn.

If a counter cannot be placed – tough luck!!

The game finishes when all 20 cards have been revealed.

1. The player who has placed the most counters is the winner
2. Players add up the numbers covered by their counters, and the one with the largest total wins.

# Game 2 (Using one board)

Decide on a multiplication table to be practised, say “4 \* table”.

Player A places a counter on any square – suppose it covers up the number 5. Then s/he says, “Five fours are 20” and records 20 as her/his score.

Player B then places a counter adjacent to the last one played – suppose it covers the number 3. S/he says “Three fours are 12” and records 12 as their score.

Players continue alternately placing counters adjacent to the last one played and recording the score.

When the board has been filled, the winner is the player with the largest total score.

If a player is unable to place a counter on an adjacent square, he/she can place their counter anywhere available on the board.

**Game 3 (Using two boards)**

Use two dice, each numbered 1 to 6.

Players alternately throw the two dice and find the sum. Suppose it is 8. A counter can then be placed on a square containing the number 8, or a set of squares whose numbers sum to 8, eg 3,4 and 1.

If a player cannot do this exactly then he/she must do nothing at all on that turn.

The winner is the first player to cover the whole board.

**Game 4 (Using two boards)**

Use two dice, each numbered 1 to 6.

Each player in turn throws the two dice.

A counter is placed on a square containing either the SUM of the DIFFERENCE between the two scores on the board.

The first player to cover their board wins.

**Game 5 (Using two boards)**

Use two sets of cards, each numbered 0 to 9.

The sets of cards are shuffled and placed face down in two piles.

Player A reveals the top two cards, eg 7 and 5, and multiplies the two scores together, i.e. 7\*5=35. His score is the digit in the units place 5 so he places a counter on a square numbered 5.

Then Player B takes his turn, revealing the next two cards. Play continues in this way and, if the piles of cards are all used up, they are shuffled and replaced in two piles.

The winner is the first player to complete

1. the whole board or
2. a line of four (Horizontally, vertically or diagonally)

**Game 6 (Using two boards)**

Two dice are required, one representing the tens digit, the other the units digit of a two digit number.

Players take it turns to throw the two dice to reveal a two digit number. A counter can be placed on a square which is a divisor of the two digit number.

For example, suppose the dice reveal 32. Then a counter can be on a square containing a 1,2,4 or 8.

Each player can only place one counter in turn.

The winner is the player to cover

1. the whole board
2. a line of four (horizontally, vertically or diagonally)

|  |  |  |
| --- | --- | --- |
| 25 | 50 | 75 |
| 100 | 1 | 2 |
| 3 | 4 | 5 |
| 6 | 7 | 8 |
| 9 | 2 | 3 |

|  |  |
| --- | --- |
| 0 | 1 |
| 2 | 3 |
| 4 | 5 |
| 6 | 7 |
| 8 | 9 |