## Pockeł Dice Games Sampler 1

## About this sampler:

This sampler includes a few simple games for your Pocket Dice
For more advanced games and extensive teacher notes, grab a Mathematics Games with Pocket
Dice book - available from www.drpaulswan.com.au


## DR PAUL SWAN ${ }^{\wedge}$ LINDA MARSHALL

## Sampler - Activities

| Activity | What | Year | Curriculum <br> Links | Extra <br> Materials |
| :--- | :--- | :--- | :--- | :--- |
| Building Towers | Which is the larger number? | F | ACMNA002, <br> ACMNA289 | 2cm Cubes |
| Pocket Multi | Recall basic multiplication facts <br> of two, three, five and ten | $3 / 4$ | ACMNA056, <br> ACMNA075 |  |
| Multiply and <br> Add | Multiplication | $3 / 4$ | ACMNA076 | Paper |
| Multiplying <br> Game | Another game for Multiplication <br> Basic Facts | 4 | ACMNA075 | Game Board |

## Building Towers

Year: Foundation | Small groups, Pairs

## Purpose

Add small numbers, make towers with cubes and compare their heights.

## Extra equipment

2 cm cubes

## Activity

Players take turns to toss the two dice and add the dots and digits shown. That will be the number of cubes to be collected. Students make the cubes into a tower, and compare to see who has the tallest tower.

## Variations

Players toss the dice three or more times and collect the cubes; then compare to find out which player has the tallest tower.

The two dice from the 'Bear Pits' game could be used instead of these ones, so that students are adding numbers from 1 to 3 rather than from 1 to 2 .

## Building Towers Inserts 1/2



## Building Towers Inserts 2/2



## Pocket Multi

## Purpose

Practice relevant basic multiplication facts..

## Extra equipment

None.

## Activity

Players take turns to toss the two dice and complete the multiplication shown. The player with the highest result gets a point. Play continues for 10 tosses each, and the player with the most points is the winner..

## Variations

Play continues until one player reaches 10 points and that person is the winner.
Play the game for a set amount of time, for example 15 minutes. The player with the highest number of points is the winner.

## Pocket Multi Inserts 1 of 4



## Pocket Multi Inserts 2 of 4



## Pocket Multi Inserts 3 of 4



## Pocket Multi Inserts 4 of 4



## Multiply and Add

Year: 3 \& 4 | Small groups, Pairs

## Purpose

Multiply large numbers by one-digit numbers, and then add the results.

## Extra equipment

Paper to record results. Calculator if needed.

## Activity

Players take turns to toss the two dice and multiply the numbers shown; for example ' 8 ' and ' 108 ' would result in a total of 864 . Players record their result, and add each result to their total. Play continues for 5 tosses each, and the player with the highest total is the winner.

## Variation

1. Play continues for 10 tosses each.
2. Play continues until one player reaches or passes a certain target, e.g. 5000 points and that person is the winner.

## Multiply and Add Inserts 1/2




## Multiply and Add Inserts 2/2



## Purpose

Basic multiplication facts.

## Extra equipment

Multiplying Game board per player, 20 counters per player.

## Activity

Players take turns to roll the two dice and multiply the value on Dice 1 by the multiplier on Dice 2; for example rolling a 7 and a $\times 6$ would result in 42

The player puts a counter on the answer on their Game board. If they already have a counter in that cell, it becomes the other player's turn.

The winner is the first player to have their entire grid covered in counters.
Discussion could take place as to why the numbers on the Game board were chosen. Why were some numbers such as 27 not included?

## Variations

Sudden Death: If both players only have one remaining open spot on their board, give both players two pocket dice and let them roll as fast as they can until one player gets their needed numbers and shouts out "I win".

Four in a Row (Quicker): The first player to get 4 counters in a row, either vertically or horizontally, is the winner.

Simpler: Dice 1 could be replaced by a standard 6 -faced dice ( $1-6$ ) if a simpler version is needed. Game Board 2 would need to be used, and players would need 27 counters each.

## Multiplying Game Inserts 1 of 2



## Multiplying Game Inserts 2 of 2



Multiplying Game Board 1

| 28 | 40 | 54 | 81 |
| :--- | :--- | :--- | :--- |
| 25 | 36 | 49 | 72 |
| 24 | 35 | 48 | 64 |
| 20 | 32 | 45 | 63 |
| 16 | 30 | 42 | 56 |

## Multiplying Game Board 2

| 9 | 18 | 28 | 42 |  |
| :---: | :---: | :---: | :---: | :---: |
| 8 | 16 | 27 | 40 |  |
| 7 | 15 | 25 | 36 |  |
| 6 | 14 | 24 | 35 | 54 |
| 5 | 12 | 21 | 32 | 48 |
| 4 | 10 | 20 | 30 | 45 |

