**Name of game: Down to Nothing**

**Aim of game:** Subtraction, knowledge of numbers

**How many players:** a pair or a small group.  
**You will need**: one calculator, paper -for score and working out.

**How to play:**

1. Enter 100 on the calculator.
2. Choose any single digit number (from 1 to 9) to take-away.
3. Leave the answer on the screen and the next player chooses a number to take-away.
4. Keep going until someone reaches exactly 0.

Agree on your scoring system before you begin. Here is one to start with:  
1 point for an odd answer  
2 points for an answer ending with 0  
3 points for a multiple of 6 (that is; an answer from the 6 times table)

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| http://nrich.maths.org/content/00/10/game/calculator.gif**For example:** |  |  |
| Player 1: | 100 - 7 = 93 | (Scores 1 point) |
| Player 2: | - 3 = 90 | (Scores 2 points) |
| Player 1: | - 5 = 85 | (Scores 1 point) |
| Player 2: | - 5 = 80 | (Scores 2 points) |
| Player 1: | - 8 = 72 | (Scores 3 points) |
| Player 2: | - 2 = 70 | (Scores 1 point) |

So far Players 1 and 2 have 5 points each. The game continues.  
The player with the highest score at the end of the game wins.

Younger players might find it helpful to track the game with counters on a Hundred chart.

Is there a strategy to help you build the highest score?  
What is the maximum number of turns possible?  
What is the smallest number of turns possible in a game?  
What is the lowest score possible? What is the highest? Set a challenge for yourself and/or a partner to find set of turns that gives a score of exactly 15 (or some other chosen target).