Nifty Numbers: Tops Tips for Number

Want to improve your family’s numbers skills and have fun at the same time? Here are some ideas and games from Maths on Toast, the family maths charity.

3 Top Tips for Number:

1. In school children begin with *concrete representations* of numbers (actual objects or pictures of objects) and then move on to *pictorial representation* (using dots).

   ![Concrete, Pictorial, Abstract representation](image)

   And finally onto *abstract symbols* (digits):  $3 + 7 = 10$

2. Practise maths facts at home;
   - Try to practise key facts regularly (number bonds, tables etc. - dependent on age), but keep it short and snappy.
   - Use real-life contexts to introduce number facts in everyday life, such as shopping, sharing out food etc.
   - Make it fun by playing games (see over) or doing something creative like making a poster.

3. Times Tables:
   As a rough guide - between the age of seven and eight, children should start to learn the three, four and eight times tables. By the end of Year 4, when they turn nine they should be aiming to ‘recall’ their multiplication tables up to 12 x 12.
   Again try to keep it fun by singing songs or playing games – like our number sense game Number Rumbler: 
   [https://www.mathsontoast.org.uk/for-families/number-rumbler/](https://www.mathsontoast.org.uk/for-families/number-rumbler/)
Number Games
To encourage you to play number games at home, we thought we would summarise the instructions for some of the ones you enjoyed as part of Nifty Numbers.

Guess the Number
You can make this game as easy or hard as you like. Start by only allowing whole numbers from zero to twenty. When you’ve got the hang of it, stretch yourselves by including bigger numbers... and even numbers below zero...

1. One player leaves the room (or covers their eyes and ears). The others choose a number.
2. The player comes back in. They have to work out what the number is, using only yes/no questions. For example, they could ask ‘Is it an odd number?’ or ‘Is it more than twenty?’ The aim is to work it out in as few questions as possible. When they’ve guessed, it’s someone else’s turn.

Higher/Lower
This game is for as many players as you like – just take turns. **You will need a pack of conventional playing cards, well shuffled, with jokers removed. Aces are 1s.** Your aim is to turn over as many cards as possible before you are ‘out’.

Choose one person to be the dealer.
1. On your turn, ask the dealer to turn over a card.
2. Take a look at the card. Say ‘higher’ if you think the next card will be higher, or ‘lower’ if you think it will be lower.
3. Ask the dealer to turn over the next card. If you’re right, carry on. If you’re wrong, it’s the end of your go.