

# Math games at home

Activities for  
parents and  
children

for children of the age 4-7

«card war» \*

**Game kit:** You will need a deck.  
To begin with, take out the face cards and  
use the rest of the deck. Players: 2-5

Always have paper and pencil with you as  
keeping notes helps our thought!

## "War"

Each player picks a card; the one with the highest card takes all the cards. In the end, the one who has gathered the most cards wins.

## "Double war"

Each player picks two cards and adds up the numbers in any possible way. The one who has the highest score wins all of the cards. Later, you can change the rule and decide that whoever has the lowest number wins. In that case, players must **subtract**.

## "Double war", using face cards

After having played this game with my daughter many times, she insisted on including the face cards in the game. I agreed and we decided that face cards count for 10. This version allowed us to perform many additions. Therefore, after having played it with the face cards, she could automatically perform additions of single-digit numbers with 10.



Math concepts  
which are  
implicated

- *Number sequence and counting*
- *Association of quantity and numerical symbols, (e.g. 5 hearts symbolise the digit 5)*
- *Comparison of quantities, (e.g. 9 hearts are more than 8)*
- *Addition and subtraction*

## What do children need in order to solve simple additive problems?



Children of this age can perform additions:

- With real objects, such as bricks, legos, sticks and other objects of everyday use.
- With various iconic symbols which represent quantities, e.g. dots, lines etc. "Double war with cards", as well as other board games with dice, help children to start additions with iconic (non abstract) symbols.
- You should remember that they cannot perform additions using numerical symbols (e.g.  $3+8=11$ ), except in extraordinary cases. This happens because they cannot yet understand what an "abstract symbolic representation" means (e.g.  $3+8=11$  does not mean anything to a child of this age).

## Which strategies do children use at preschool and first grade of primary school?

1. In the beginning they count one by one the objects or symbols from both quantities; i.e. in the aforementioned card game, if they have 3 and 5, they will count all symbols (e.g. hearts) of both cards together 1,2,3,4,5,6,7,8.
2. Later on, they start e.g. from the first quantity, 5, and continue by enunciating the next 3 numbers 6,7,8. This way they add 5 to 3.
3. At a next stage, they will start performing mental additions, which happens considerably later.

### Tips!

You can model the 2<sup>nd</sup> strategy when you perform additions in front of your child, (at games or daily tasks).

And remember that the more chances you give your child to apply the first two strategies (with the math games), the easier s/he will pass on to the 3<sup>rd</sup> strategy. However, do not push your child to change strategies; s/he will do it when s/he will have grasped it.

*Have fun!*

\* The original version of this game can be found at: Camii, C. K., De Clark, G. (1995). Children re-invent maths . Patakis Publications.



Programme Implementation

POLYDROMO: Group and Group and Periodical for Bilingualism and Multiculturalism in Education and Society



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