Name and surname:_







Developed by ALOHA Mental Arithmetic in collaboration with: www.orientacionandujar.es

TEACHER'S VERSION

session

learning (to calculate with the abacus

Length: 15 minutes Material: none Organisation: individual Content: understanding the difference between quantitie

difference between quantities, numeric value and beads'value

activity 7:

How many eggs has the hen laid?

Before explaining the use of the abacus, it is recommendable to watch these videos:

- · The abacus: beads'movement I
- · The abacus: beads' movement II

Information for the teacher

How to hold the abacus?

Right-handed: The abacus is held with the left hand, placed horizontally on the table and the beads are moved with the right hand.

Left-handed: The procedure is the same but it is done with the other hand. The abacus is held with the right hand and the beads are moved with the left hand.

Before starting to calculate*

The first step before starting your calculation is to "clear the abacus ", in other words, to leave it at 0. To do this, lift the abacus vertically with two fingers so that all the beads (lower and upper) drop down. Then put the abacus flat on the table and run your index finger underneath the upper row of beads to move them up, this gives you the starting point to calculate.

Addition and Subtraction

To add the lower beads, use your thumb. To subtract the lower beads, use your index finger. To add and subtract the upper bead, use only your index finger.

Add/Subtract lower and upper beads at the same time

There are times when it is needed to move the upper and lower bead simultaneously to add/subtract. For example, to add 6 move the upper bead (5) and one lower (1) bead.

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To that end, do the movement known as "pinch" moving the lower beads upwards with the thumb and simultaneously lowering the upper bead with the index.

To subtract do the same but inversely: do a simultaneous movement of "open pinch", moving up the upper bead with the index finger and moving the lower ones down with the thumb.

Remember:

- The abacus must be hold at all times while doing the calculation and the pencil must not be dropped.
- Before starting to calculate, it is necessary to "clean the abacus", that is, to leave it at 0.

After the explanation, do the exercise from the student practice sheet.

Solution to the student activity:

A	B	\odot	\bigcirc	E	F	G	(H)	(\mathbf{I})	J
\bigcirc		2	3	4	(5)	6	7	8	9

*The process of "cleaning the abacus" shall only be done with "real" abacuses, not being possible to do it with the home made abacus from the session 2 of this didactic unit.

TEACHER'S VERSION



Length: 5 min

Knock-Knock-Knock

Main ability practised: Listening Capacity. This game also enhances: Attention and Concentration.

The teacher will ask the students to listen carefully and to make a mental note of how many times does the teacher knocks on the table. The student should say the number of knock the teacher did. They must count it mentally (not aloud).

The difficulty of the game can be increased when the teacher, after a certain number of knocks, pauses, and then starts knocking again. Afterwards the student should say how many knocks the teacher did first and how many came after.

