

OPEN LESSON

The main aim of this open lesson is to explain the simple machines, specially the lever.

When the students get into the classroom, they find a stick and a wheelbarrow in a corner, so they might be very surprised of seeing these two objects there.

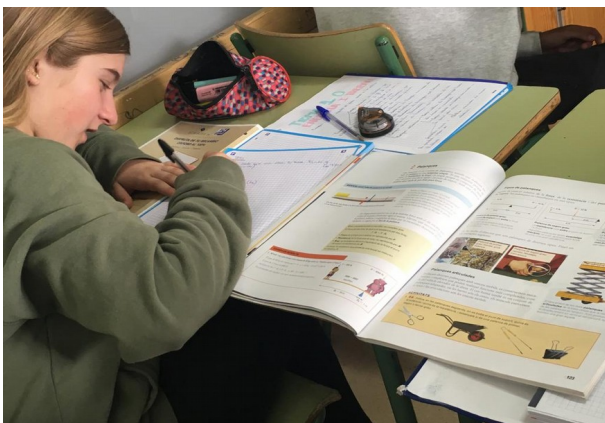
Straightaway I'll ask them to stack up a large amount of books near the wheelbarrow.



The question is simple, we can't move all these books by carrying them only with our arms, so we need to invent something to do it.

In that moment, I change into Archimedes and pass to invent the lever.

First of all, I explain what a machine is and why the humans have invented them (specially for working less with less effort and win in commodities).



Now we are prepared to know about the lever, I pronounce my famous phrase: “ Give me a support and I’ll move the world”



The explanation of three kinds of levers is on the blackboard, with the equation to solve the problems.

First type, weighing scales, scissors, oar of a boat....



Third type, pliers, fishing rod,...

Then to explain the second type, I go to the pile of books and put all of them into the wheelbarrow, I ask the students if I will be able to move all the books. They respond loudly yes, so I start walking moving the wheelbarrow to the other corner of the classroom.





To finish the explanation, we transform into numbers this action (length of the wheelbarrow, length of the pile of books to the wheel and the weigh of the books) to find out how much force I finally do to move the full wheelbarrow.

As the numbers show, I have to do less effort than the weight of the books, so my invention really functions

