

# NO SOIL, NO LIFE

Let's accept it, we ALL loved to play with soil when we were little, but, Do you know what is soil? No, is not just that horrible stain that stays in your jeans after you play in your garden, I'll explain you.

By: Sofia Villarroel

First, let's answer the question: What is SOIL?. Soil is all the loose material that composes the upper layer of earth. It is where plants grow and animals and people live. Soil is made of different elements that give it structure, which is: rocks, minerals, water, and air. We can find living things such as worms, plants, fungi, among others. There are also dead things that decompose, which are named "organic matter". Without soil, life will be impossible WHY? because in the soil plants, vegetables and fruits grow, and those things are our food. Also, grass grows in soil, and why is that important? Well, the majority of the animals eat grass, like rabbits, sheep, cows, etc. and they are important for us because they give us: milk, cheese, yogurt, meat and other things. So if we don't have soil, we don't have food, and if we don't have food, we don't have life.

Now that we know what soil is, we are going to learn about different types of soil. One type of soil is desert soil. Which is very dry, and is not very productive, because of its low capacity to retain water, and Do you know why is too dry?. Well, it's because in the desert there's almost no precipitation. So, because of those conditions and its characteristics, desert soil can't retain water. With this soil is very difficult to have vegetation. That's why in deserts is not common to see trees or fruits. The size of its particles is between 0.15 mm and 0.30 mm.



Now, Why do you think I only talk about desert soil? Well, it is because of its properties, nitrate (also named saltpeter) was discovered in 1866 in the Antofagasta desert! Nitrate was very important when it was discovered. Why?. Okay, it was important because it was a natural fertilizer. Why do you think that the War of the Pacific was for?, IT WAS FOR NITRATE!. This fertilizer made Chile very wealthy, and its main producer. During 1880 and 1930 nitrate was highly demanded in the international market. Now you know why soil is so important, is not just that brown dough that gets stuck in your nails after you play in the garden, is a powerful element that makes our life possible, and Chile very wealthy :)

# Math CHALLENGE!

Did you know... That Chile was the main producer of nitrate between 1880 and 1930? During first years of exploitation, Chile sold 8.000 bags of nitrate, after 10 years Chile had already sold 50.000 bags of nitrate.

How many bags did Chile sell between those ten years?

## **SOLUTION:**

$$\begin{array}{r} 8.000 + E = 50.000 \\ -8.000 \quad - 8.000 \\ \hline 42.000 \end{array}$$

$$E = 42.000$$