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Quarterly Problem

- *Green Edition* -

A universe below us



Soil is the most superficial part of the Earth's crust, in which multiple and varied physicochemical phenomena take place, harbouring an ecosystem with extraordinary biological activity and being an essential component of life on the planet.

Look at the picture at the top of this page, could soil clean dirty water? Let your creativity fly to design and build a water treatment device using recycling plastic bottles and materials that we can get from the soil, such as stones or sand.



One step further: The difference in the composition of each kind of soil determines their capacity to retain water, which influences its permeability to prevent the formation of runoff and floods, also affecting the appearance of erosion phenomena. Could you design an experiment, similar to the previous one, to show the different capacity of the soil to retain water and deal with erosion depending on its composition? *Clue: Do not forget about plants.*

Brainstorm-Box
December 5 is the World Soil Day, why do you think soils are so important to have a celebration day?



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Whose method is the most accurate?

Be sure to present your thoughts and findings in an accurate and understandable way.

Compare the performance of the different designs carried out to explain what has happened in each of them based on the composition of the materials used, "the composition of the soil". Does vegetation play a role in the soil capacity to retain water? What could be the reason?

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