

Do roots breathe?

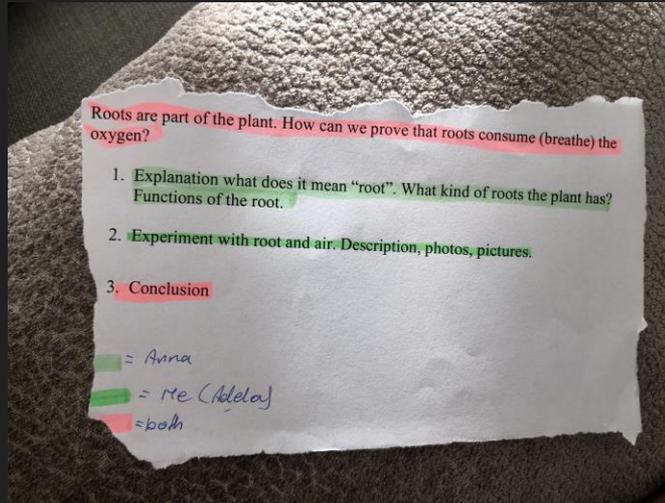
By Anna and Adell
Science
MYP 1
2020

What will we talk about

- Function of root
- What kinds of roots do plants have
- Explanation what does it mean “root”.
- Experiment with roots and air
- Description, photos and pictures

By Anna

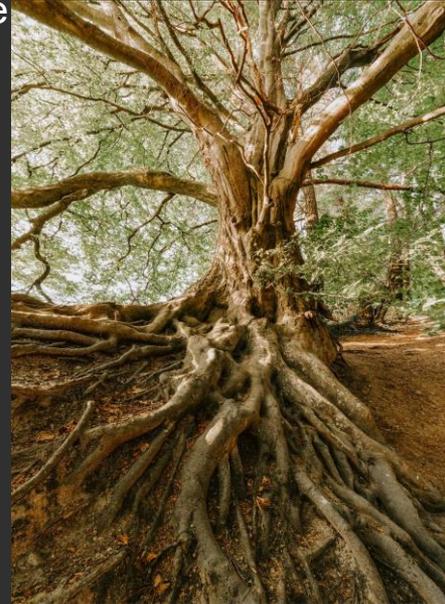
By Adell



What does it mean “root”? And what is their function?

By Anna

In botany, that part of a plant is normally underground and anchors the plant. It's normally absorbing water, dissolving minerals and it's storage of reserve food.

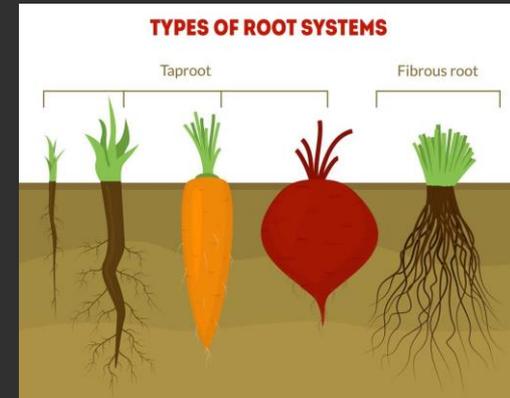


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What are the types of roots?

By Anna

There are two types of roots: taproot and fibrous root - taproot is when there is one big root and there are little roots growing from the big one, and fibrous root is when there is no big root, but just little roots coming right away from the plant.



Experiment (do roots breath)

1. First we put exactly 200 ml into a cup not more or less.



2. Then you put the plant into the water and cover it with some plastic so no O₂ comes in.



3. Then u leave the plant for a week at least. If you want more.



4. Then after a week, you take your plant and make a little hole into the plastic. Take some fire on a stick and quickly put it into the hole under the plastic.

- If the fire extinguish then the root does breath
- If the fire did not extinguish then that means that there was a hole or that roots do not breathe O₂.



Why does the fire disappear

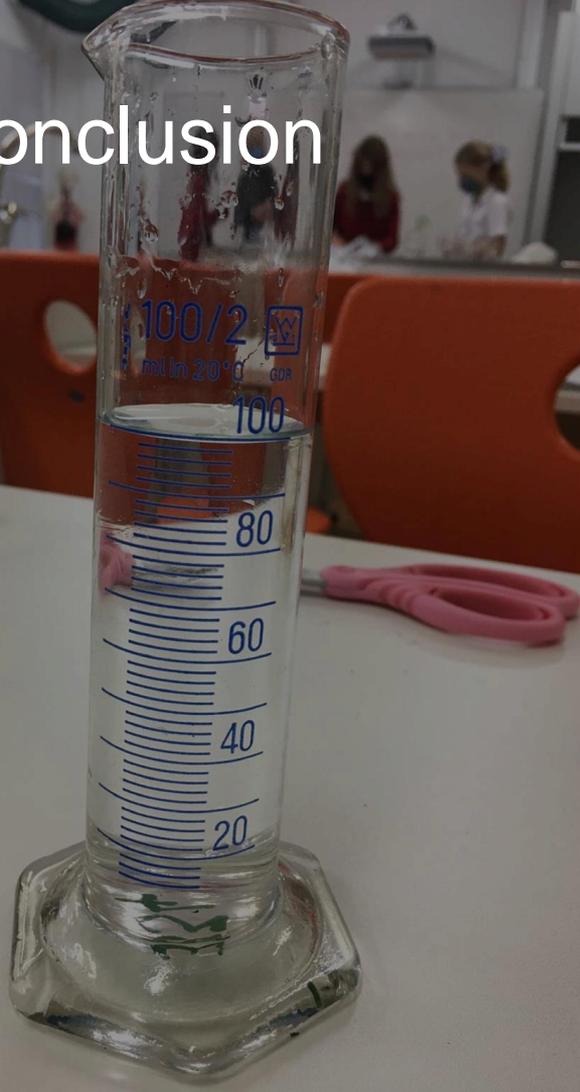
By Adell

The fire needs O₂ to burn. Even when we are in the woods and have a fire, we blow in it, so it gets bigger and when there is no O₂ it just disappears.

When we put the fire under the plastic, there is no O₂ for the fire because the roots were breathing it so nothing was left and the fire disappeared.



Conclusion



Our experiment was successful.

Inside the plastic bag was not oxygen and the flame of the fire went out. Carbon dioxide does not support combustion.

It means the roots, even under the water, breathe.



The end

Thank you for attention

<https://www.britannica.com/science/root-plant#:~:text=Root%2C%20in%20botany%2C%20that%20part,and%20storage%20of%20reserve%20foods>