

## The plant

In this week's IST Austria Pop-Up Science we are dealing with plants and how they work.

To grow, a plant needs nutrients, water carbon dioxide and light.

Through the roots, the plant gets water and important nutrients like nitrogen or phosphorous from the soil. Through its leaves, the plant takes up sunlight and carbon dioxide.

In the leaves, plants contain chlorophyll. This substance not only gives the leaves their green color, but it also helps the plant convert carbon dioxide into oxygen and sugar by the help of energy from the sun! This process is also called photosynthesis.

The sugar is the plant's food and building material. Since the plant does not need the oxygen, it releases it back into the air.

Therefore, thanks to the plants, we have enough oxygen to breathe every day!

Did you know that the tallest tree on earth is 115.55 meters high? This is higher than Vienna's town hall, which is 105 meters high! The tallest tree in the world is a California redwood and grows in Redwood National Park in the United States. This is what a California redwood tree looks like (it's so tall, it doesn't even fit on the photo!):



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## A. Plant profile

Label the individual parts of the plant with arrows.

Use the following terms:

- stem
- root
- fruit
- seeds
- leaves
- blossoms



B. Do you recognize the plant in the picture?

### C. Who am I?

In each point, the function of one part of a plant is explained.

But which part of the plant is described? Name them!

Hint: Use the words from task A.

1. I anchor the plant in the ground. I take up water and minerals from the soil. Some plants use me as nutrition storage.

I am the \_\_\_\_\_.

2. I contain a small plant embryo. If someone puts me in soil, I grow into a new plant.

I am the \_\_\_\_\_.

3. I transport water and sugar through the plant. I carry the leaves, blossoms and fruits.

I am the \_\_\_\_\_.

4. I help the plant to spread its seeds. Sometimes, people eat me. Sometimes, I stick to animals' furs. Sometimes, I get carried away by the wind. But I always take the seeds with me.

I am the \_\_\_\_\_.

5. We help the plant to take up sunlight. From sunlight, water and carbon dioxide, we produce oxygen and sugar.

We are the \_\_\_\_\_.

6. We help the plant to reproduce. We produce lots of pollen. Sometimes, we are colorful to attract animals like bees or butterflies. Other times, we don't attract animals because the wind spreads our pollen to pollinize other plants of my kind.

We are the \_\_\_\_\_.

## D. Word search

In today's word search, the following words are hidden:

- PHOTOSYNTHESIS
- SEEDS
- SUNLIGHT
- STEM
- MINERALS
- WATER
- LEAVES
- BLOSSOM
- SUGAR
- ROOT
- POLLEN
- CARBON DIOXIDE
- FRUIT
- PLANT EMBRYO
- NUTRITION STORAGE

Circle each word. Good luck!

H	T	N	U	Q	B	E	P	C	P	R	V	H	L	O	L	B	I	D	W
I	B	W	W	A	T	E	R	A	Y	O	I	S	J	O	Z	I	Z	O	R
A	P	V	Q	P	W	U	H	R	P	O	J	U	B	L	O	S	S	O	M
B	F	O	A	L	N	F	G	B	G	T	W	N	F	S	N	S	I	C	U
U	E	D	L	O	I	F	A	O	F	Q	G	L	O	N	U	B	T	K	P
D	E	G	X	L	I	A	M	N	Z	H	E	I	L	V	T	Z	E	E	O
K	C	N	L	P	E	M	E	D	D	H	J	G	D	A	R	Q	W	B	M
K	P	M	E	H	F	N	M	I	R	X	F	H	S	K	I	L	Y	E	E
U	L	T	P	O	M	X	S	O	K	Z	R	T	O	T	T	M	S	B	I
A	A	N	Z	T	T	B	V	X	G	H	L	Y	E	R	I	J	J	U	O
S	N	C	T	O	I	T	M	I	S	F	R	U	I	T	O	B	R	O	I
X	T	L	T	S	E	A	H	D	E	F	D	T	G	S	N	L	P	P	E
D	E	X	P	Y	V	P	A	E	Z	T	V	Q	X	U	S	R	A	J	U
O	M	T	Y	N	S	L	M	I	N	E	R	A	L	S	T	L	R	T	W
S	B	U	A	T	W	E	E	H	K	Z	K	X	R	L	O	S	S	N	H
G	R	I	F	H	M	R	E	A	U	N	X	V	X	R	R	A	J	B	Z
N	Y	K	R	E	F	E	G	D	V	A	Y	A	D	U	A	Y	W	G	G
O	O	M	R	S	X	V	U	V	S	E	W	M	T	O	G	N	N	I	L
R	N	G	M	I	I	G	V	R	G	R	S	Q	O	Q	E	E	Z	A	M
E	I	I	A	S	U	K	S	M	I	S	U	G	A	R	□	I	Y	D	T

E. Color the pictures. Have fun!

