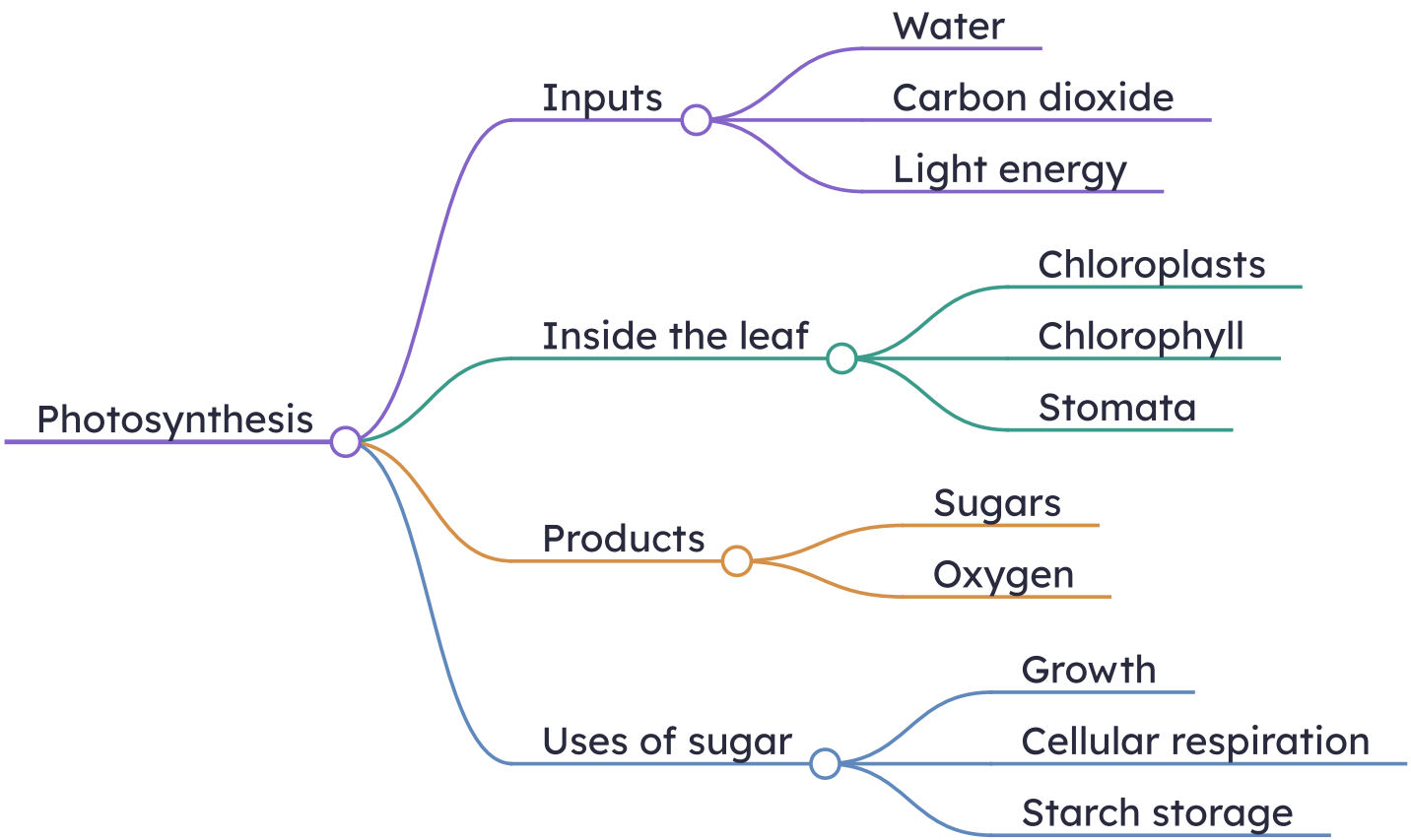
Photosynthesis

Follow the ingredients, energy, and products of a plant's sugar-making process.



Read one branch at a time. Then cover the details and explain them in your own words.

Understand the topic

Plants use light energy to build sugars from carbon dioxide and water. Chlorophyll absorbs light, roots supply water, and carbon dioxide enters through stomata. Sugars provide material for growth and fuel for cellular respiration; some can be stored as starch. Oxygen is released during the process.

How the map is organized

Separate inputs, location, products, and uses. This keeps an energy source distinct from the matter used to build sugar.

> **Watch out for this**
> Plants also carry out cellular respiration. Photosynthesis does not replace it.

Try it yourself

Cover the products branch and explain what happens to the sugar. Predict what changes when a plant receives less light, and identify another variable to control.

Two questions to answer

What does light supply?

Light supplies energy; carbon dioxide supplies the carbon used to build sugars.

Do plants carry out cellular respiration?

Living plant cells need usable energy for their activities.

Sources

openstax.org
https://openstax.org/books/biology-2e/pages/8-1-overview-of-photosynthesis

Original practice material compiled by Studera.ai. Explore at studera.ai/en/resources/mind-map-examples.