

Leaf structure

CLIL di scienze

Durata sessione: 3 lezioni

Classe : 1B

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Obiettivi:

- confrontare un esempio di libro di testo in inglese adottato in una scuola statale inglese e il libro di testo adottato dalla classe. Ci sono le stesse informazioni? Come sono presentate?
- descrivere come la struttura delle foglie permette la fotosintesi e spiegare lo scambio gassoso attraverso le foglie usando termini in lingua inglese

strumenti utilizzati:

- fotocopie di un testo di scienze in lingua inglese
- internet: video introduttivo sulla fotosintesi: <https://www.youtube.com/watch?v=yHVhM-pLRXk>

ppt presentation sulla fotosintesi: www.boardworks.co.uk/media/21b7be85/Photosynthesis.ppt

photosynthesis song : <https://www.youtube.com/watch?v=tSHmwIz9FNw>

Gli alunni hanno partecipato con entusiasmo e mettendosi in gioco in prima persona , svolgendo gli esercizi richiesti e cercando di spiegare i concetti appresi in lingua inglese. La classe , al termine del progetto, ha chiesto di poter affrontare in lingua inglese anche i rimanenti argomenti riguardanti il mondo vegetale.

Getting gases in and out

The diagram opposite shows a hole in the underside of a leaf. These holes are called **stomata**. The carbon dioxide needed for photosynthesis gets into the leaves through the stomata. The oxygen made during photosynthesis moves through the spaces and out of the leaf through the stomata.

Trapping light energy

The **palisade cell** is where most of the food is made. Palisade cells have lots of chloroplasts containing chlorophyll, so they can trap a lot of light energy. Palisade cells are close to the top surface of the leaf so that they get plenty of sunlight. The photo shows a palisade cell seen under a microscope.

- d Why do you think the palisade cells are at the top of a leaf, and not at the bottom?
- e What do these cells have a lot of so that they can carry out photosynthesis?

Questions

1. Copy and complete these sentences.

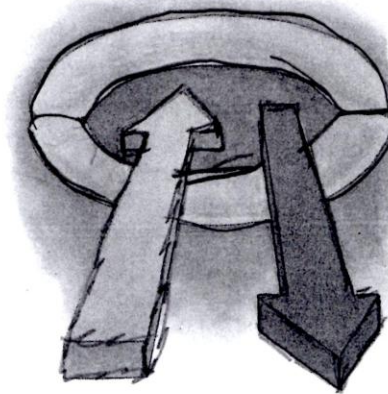
All plants need _____, _____ and light energy to make their food. Inside the palisade cells are parts called _____. These contain a green substance called _____.

2. Write out each part of the leaf along with its correct job.

Parts of leaf Jobs

waxy layer	carries substances to the leaf
palisade cell	let gases into and out of the leaf
stomata	photosynthesis happens here
vein	stops the leaf losing water

- 3. a Which gas does the plant need for photosynthesis?
b Which gas does the plant make during photosynthesis?
- 4. How do gases get in and out of the leaf?



carbon dioxide in for photosynthesis

oxygen out for photosynthesis



For your notes

The plant makes its food by photosynthesis in the leaves.

Leaves have a large surface to trap as much sunlight as possible.

Leaves have **stomata** so gases can move in and out.

