

Newcomer Lesson Adaptation — sample

Photosynthesis · Grade 7 life science · one unit, rendered at four WIDA levels

THE GRADE-LEVEL TEXT (THE ANCHOR — WHAT EVERY STUDENT IS ACCOUNTABLE TO)

Photosynthesis is the process by which green plants use light energy to convert water and carbon dioxide into glucose and oxygen. Chlorophyll in the chloroplasts absorbs sunlight, driving the chemical reaction; the glucose stores energy for the plant, and the oxygen is released into the atmosphere.

1 Entering

Words & phrases
with pictures

Plants make food. A plant needs: ☀️ sun 💧 water 🌬️ air. The leaf 🍃 is the food factory. Food = sugar.

SENTENCE FRAME (TO SPEAK/WRITE)

"A plant needs _____."

Word bank: sun · water · air

2 Emerging

Short, simple
sentences

Plants make their own food. They use **sun, water,** and **air.** This is called **photosynthesis.** It happens in the leaf.

SENTENCE FRAME

"Plants make _____ from _____ and _____."

Word bank: food / sugar · sunlight · water · air

3 Developing

Expanded
sentences,
connectors

Plants use sunlight, water, and carbon dioxide (a gas in the air) to make their own food, called **glucose.** This process is **photosynthesis.** It happens in the leaves, where a green substance called **chlorophyll** captures the sunlight.

SENTENCE FRAME

"Photosynthesis happens in the _____ because _____."

Connectors: because · so that · in order to

4 Expanding

Complex sentences,
technical
vocabulary

During photosynthesis, plants capture light energy with chlorophyll and use it to convert water and carbon dioxide into glucose, **which** stores energy, **and** oxygen, **which** is released into the air.

SENTENCE FRAME

"During photosynthesis, plants convert _____ and _____ into _____ and _____."

Academic verbs: convert · capture · release · store

VISUAL WORD BANK (LEVELS 1-2)



sun



water



air (CO₂)



leaf



sugar / food



oxygen

L1 BRIDGE — SPANISH (SHOWN AS ONE EXAMPLE)

photosynthesis = **fotosíntesis** · glucose = **glucosa** · oxygen = **oxígeno** · carbon dioxide = **dióxido de carbono** · energy = **energía** · leaf = **hoja**

Most science terms here are cognates — near-identical in Spanish. Naming them lets the student transfer the concept instantly. Bridges are generated in each newcomer's actual L1 (Haitian Creole, Vietnamese, Portuguese, Dari...).