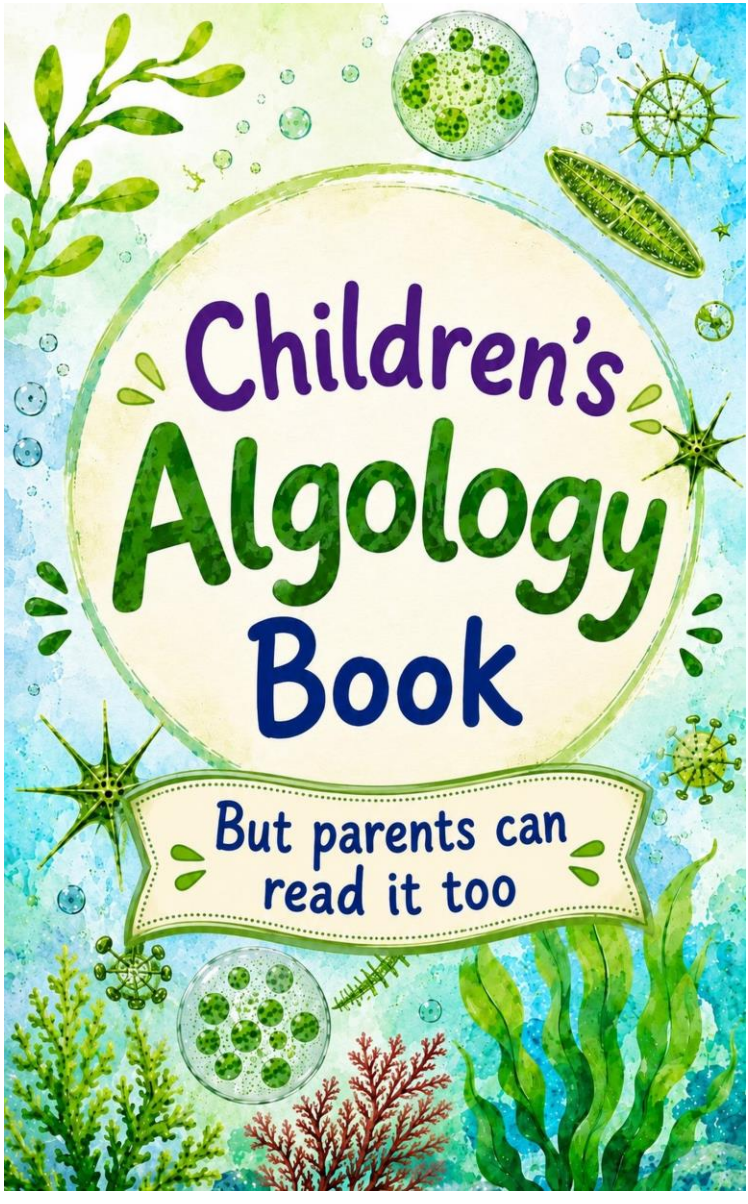
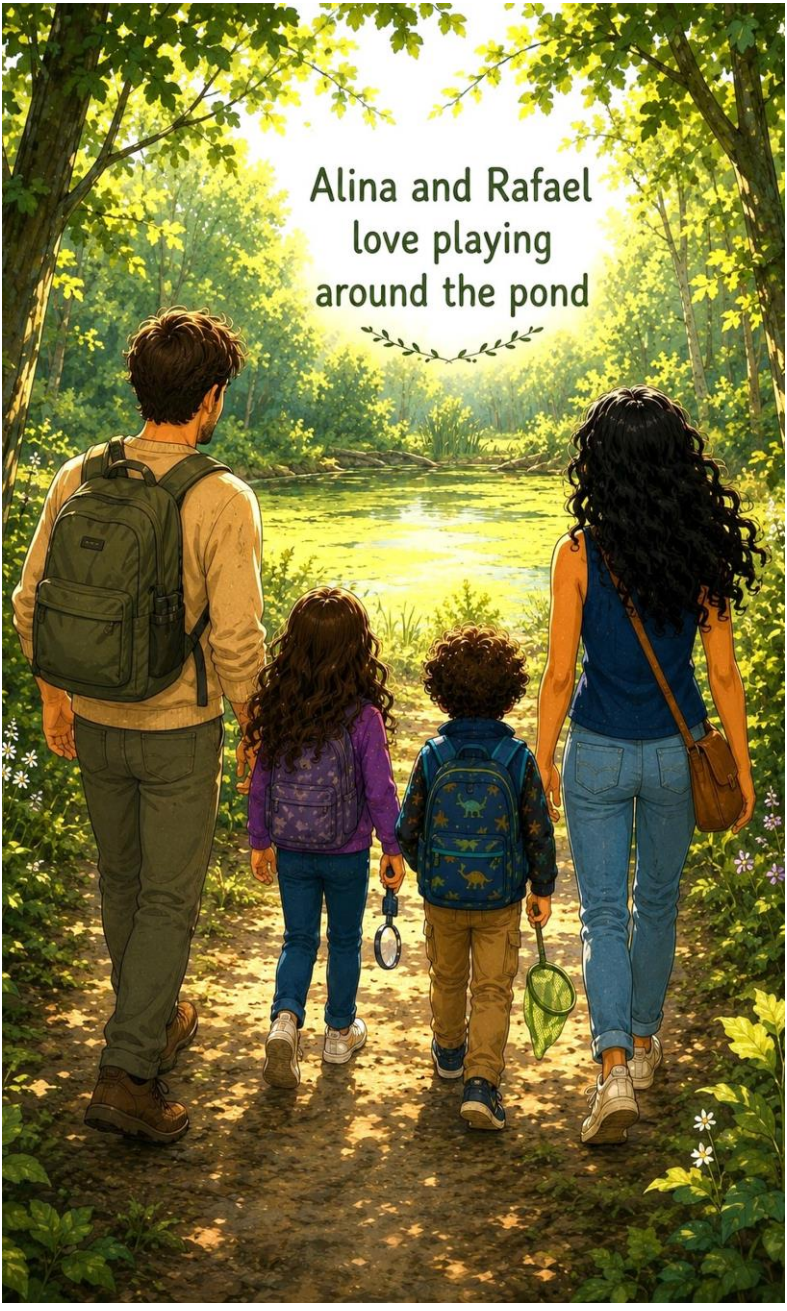
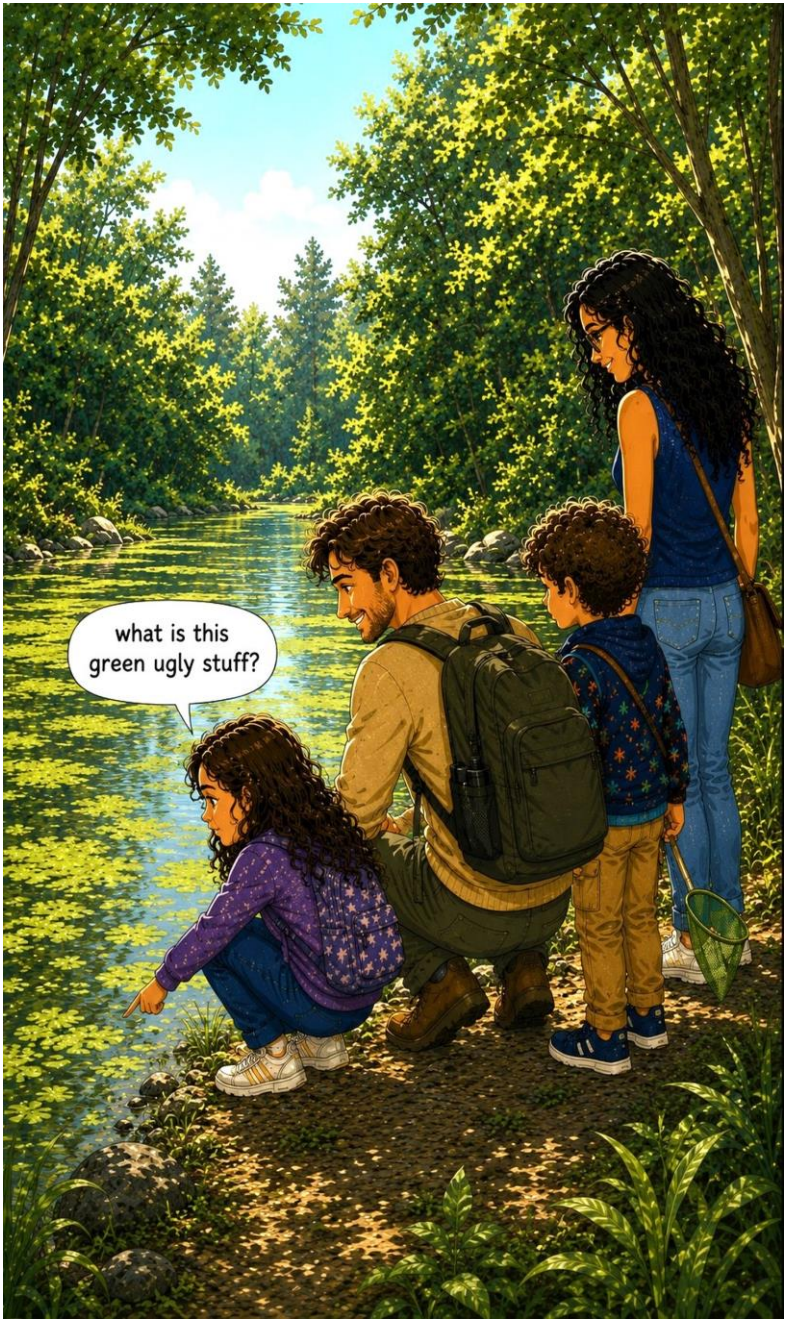
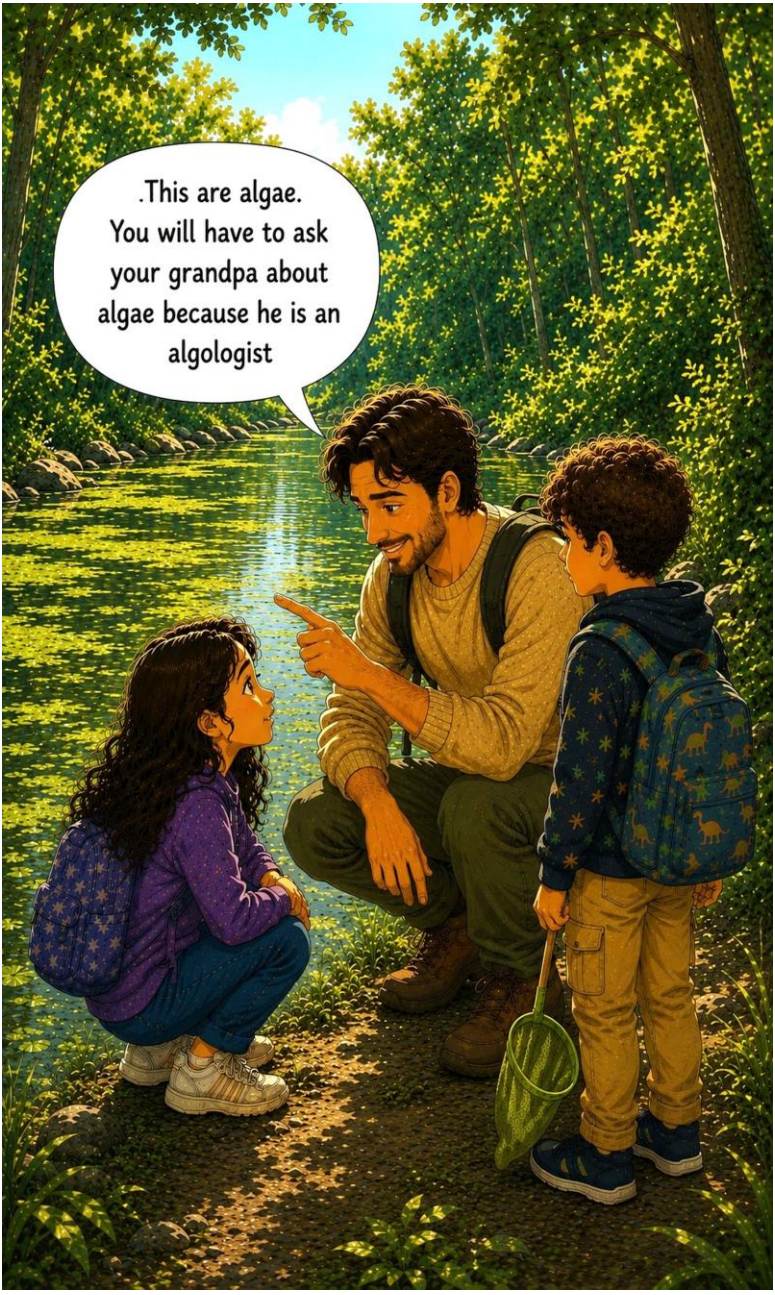
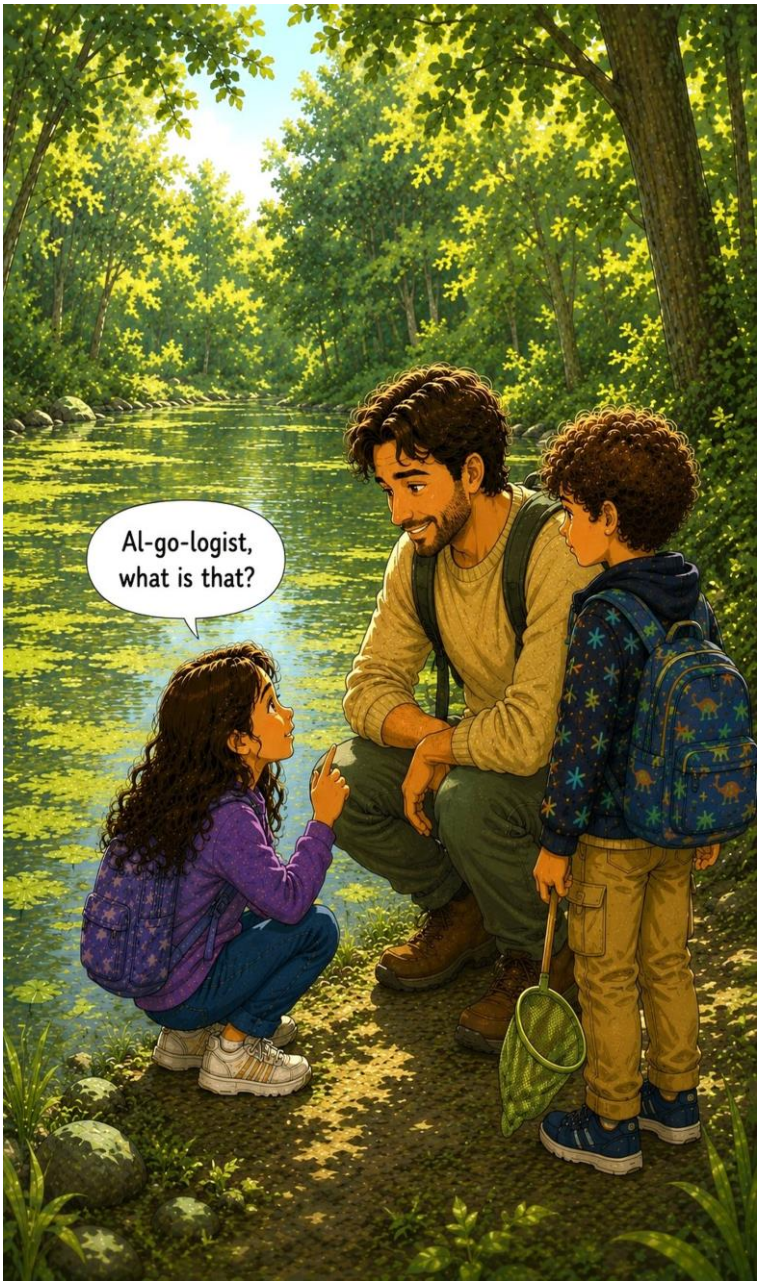

Children's
Algology
Book
But parents can
read it too

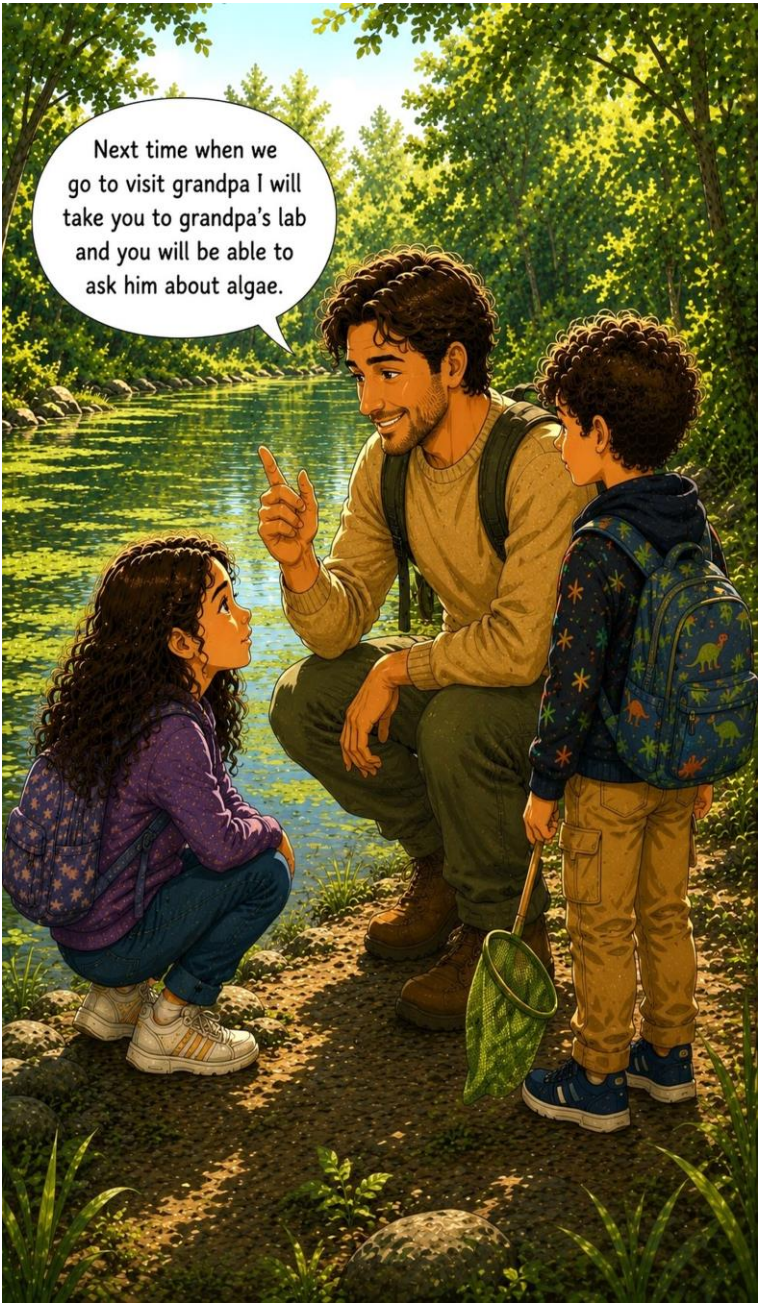

Alina and Rafel like exploring the nature with their parents.
Tiny wonders.
Big impacts.
Our future.

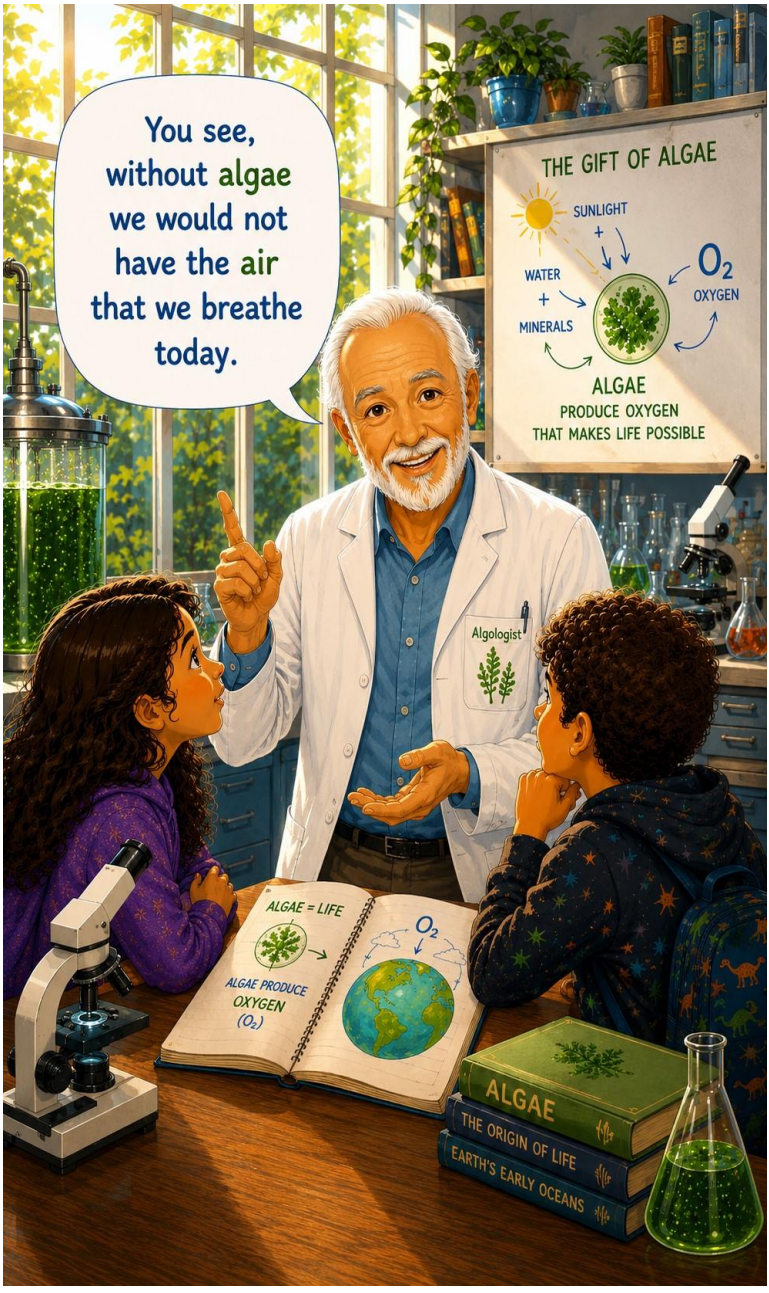

Alina and Rafael
love playing
around the pond

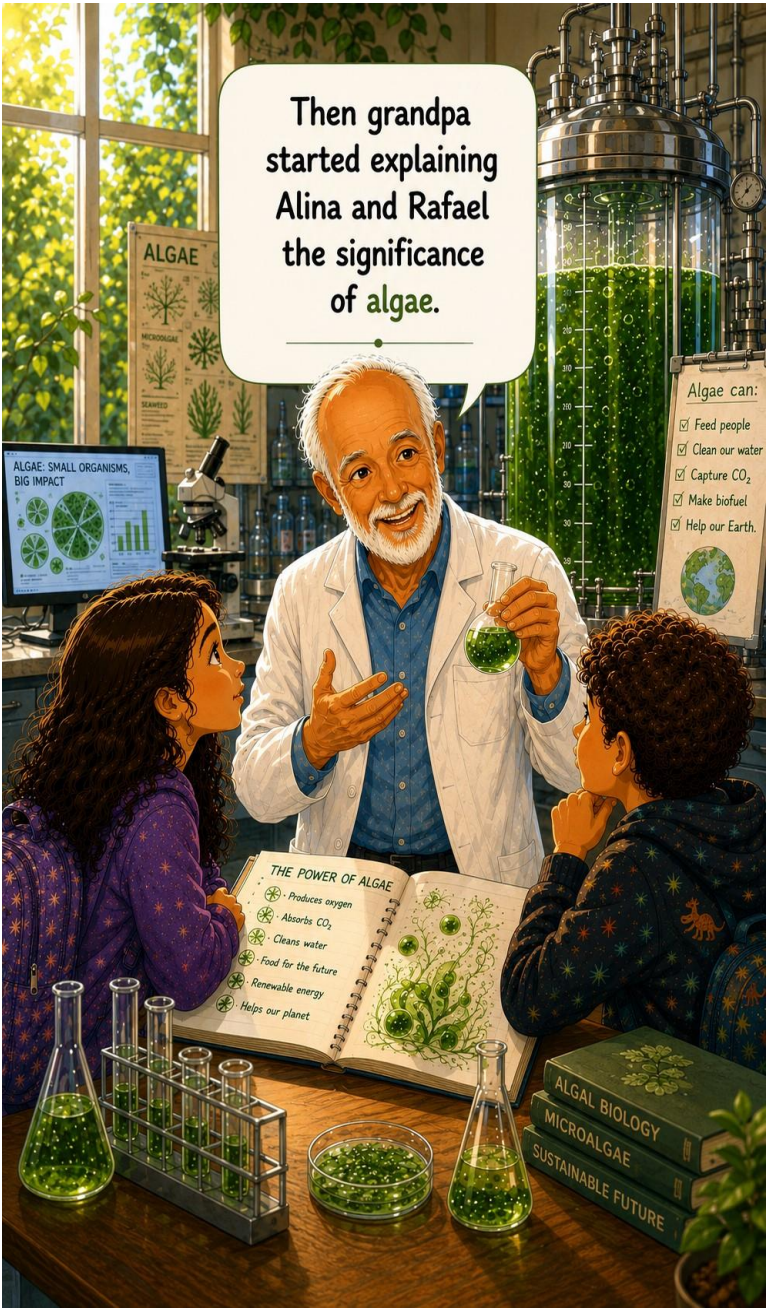

what is this green ugly stuff?

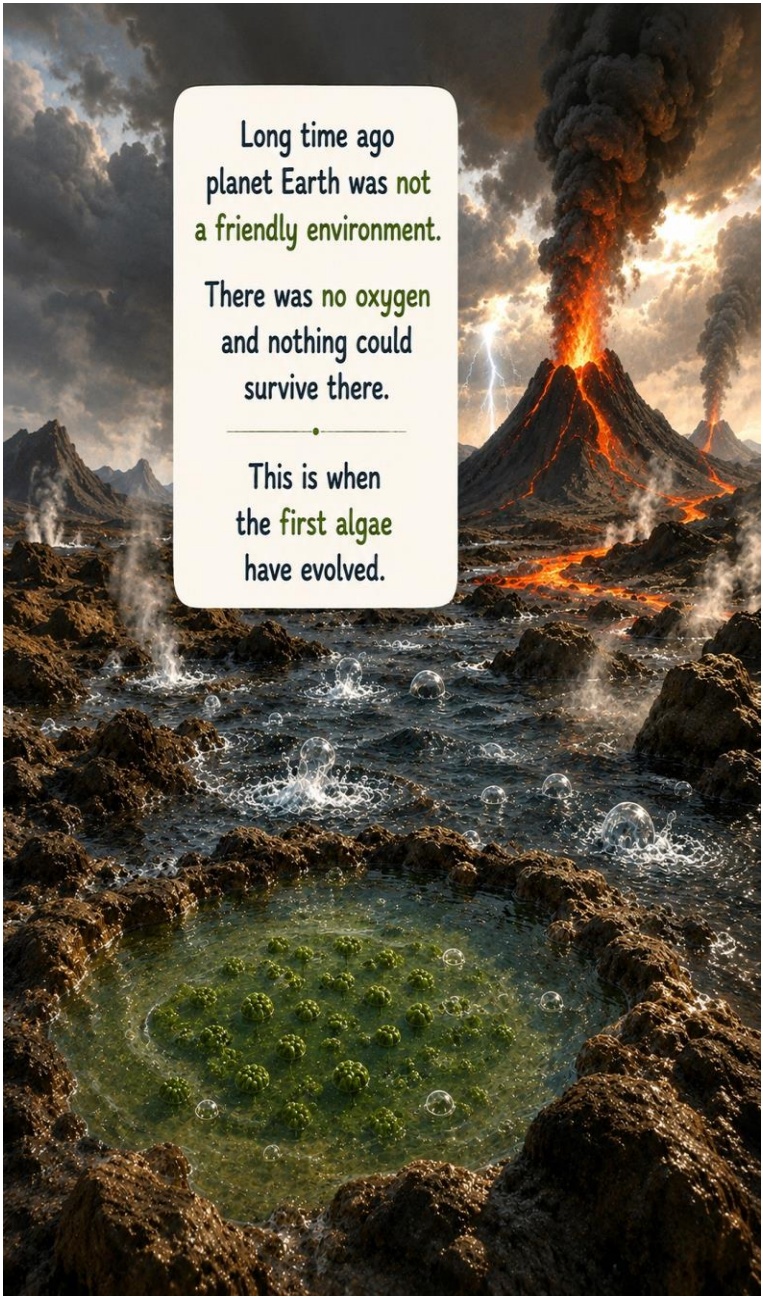

.This are algae.
You will have to ask your grandpa about algae because he is an algologist

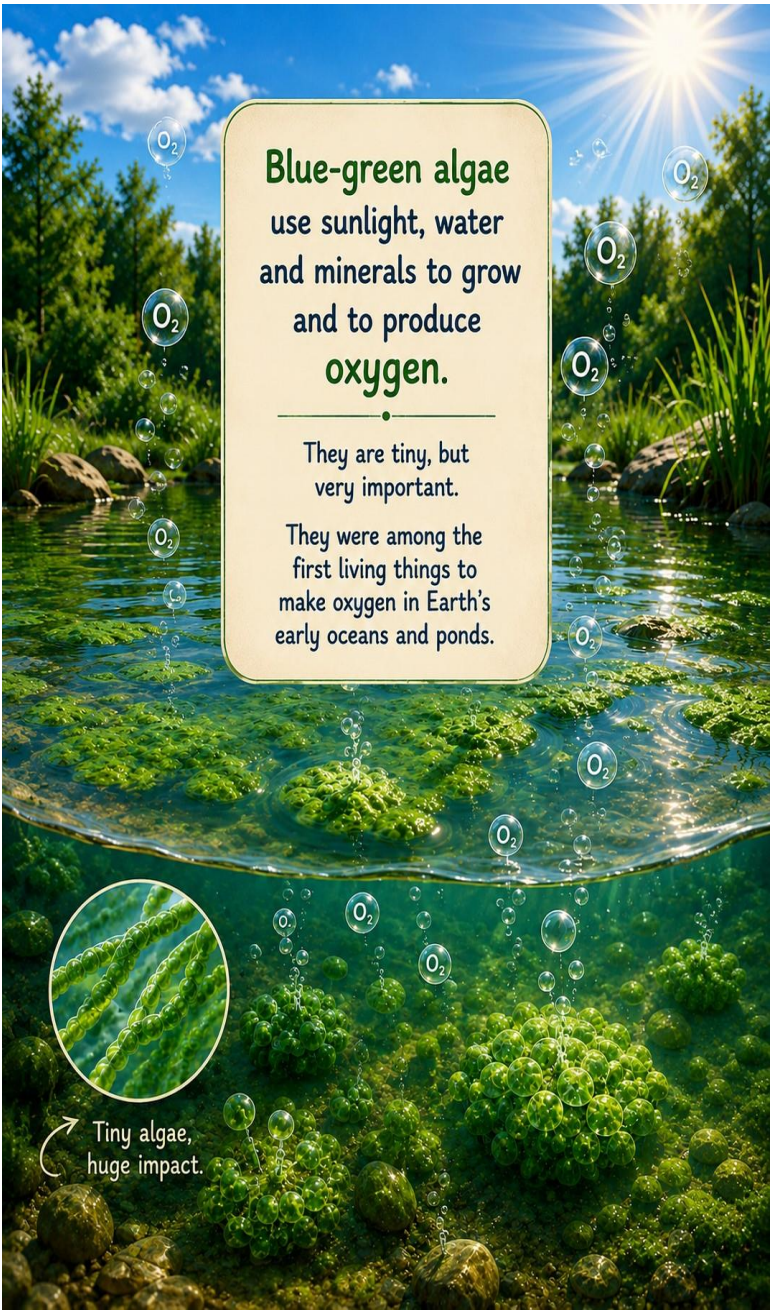

Al-go-logist,
what is that?

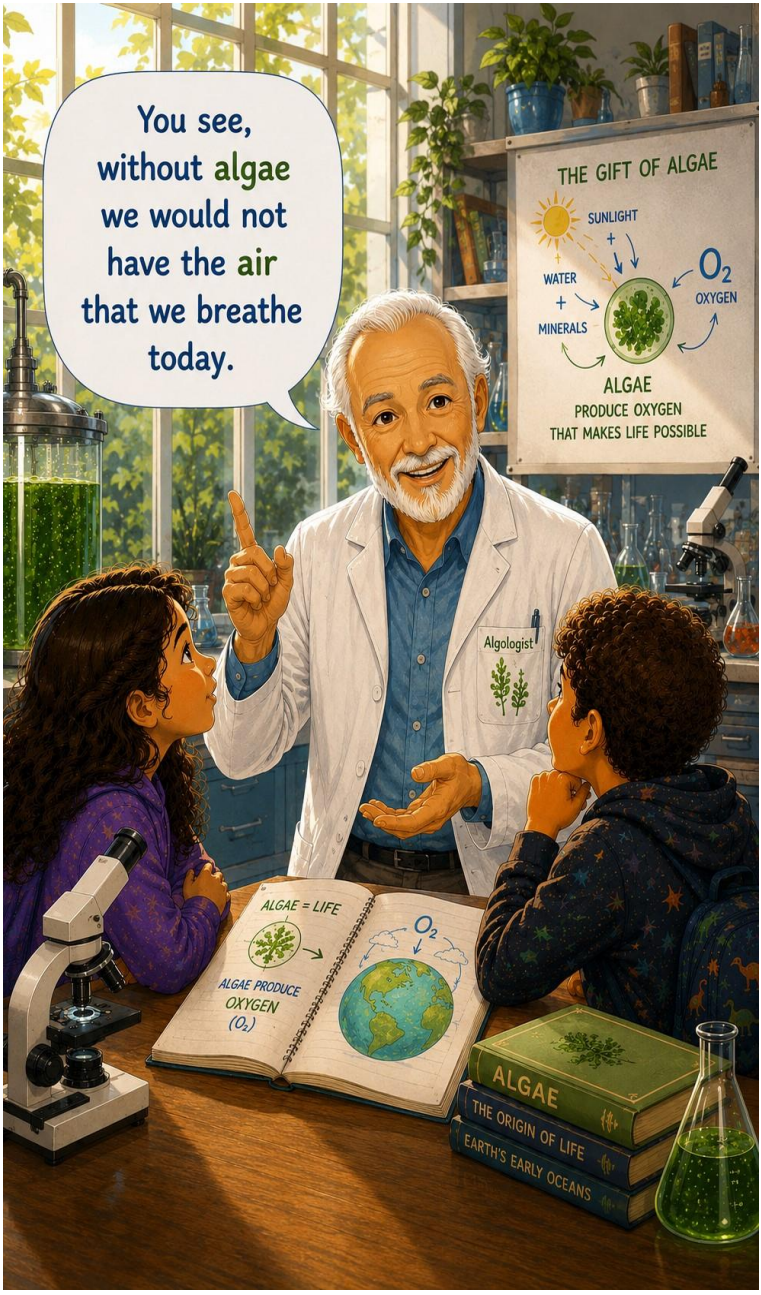

Next time when we go to visit grandpa I will take you to grandpa's lab and you will be able to ask him about algae.


You see, without algae we would not have the air that we breathe today.
THE GIFT OF ALGAE
SUNLIGHT
+
WATER
+
MINERALS
O_2
OXYGEN
ALGAE
PRODUCE OXYGEN
THAT MAKES LIFE POSSIBLE
Algologist
ALGAE = LIFE
ALGAE PRODUCE OXYGEN (O_2)
O_2
ALGAE
THE ORIGIN OF LIFE
EARTH'S EARLY OCEANS


Then grandpa started explaining Alina and Rafael the significance of algae.
ALGAE
MICROALGAE
SEAWEED
ALGAE: SMALL ORGANISMS, BIG IMPACT
Algae can:
☑ Feed people
☑ Clean our water
☑ Capture CO_2
☑ Make biofuel
☑ Help our Earth.
THE POWER OF ALGAE
· Produces oxygen
· Absorbs CO_2
· Cleans water
· Food for the future
· Renewable energy
· Helps our planet
ALGAL BIOLOGY
MICROALGAE
SUSTAINABLE FUTURE


Long time ago
planet Earth was not
a friendly environment.
There was no oxygen
and nothing could
survive there.
This is when
the first algae
have evolved.


Blue-green algae
use sunlight, water and minerals to grow and to produce
oxygen.
They are tiny, but very important.
They were among the first living things to make oxygen in Earth's early oceans and ponds.
Tiny algae, huge impact.

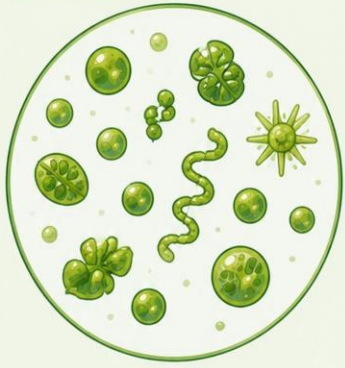

You see, without algae we would not have the air that we breathe today.
THE GIFT OF ALGAE
SUNLIGHT
+
WATER
+
MINERALS
O_2
OXYGEN
ALGAE
PRODUCE OXYGEN
THAT MAKES LIFE POSSIBLE
Algologist
ALGAE = LIFE
ALGAE PRODUCE OXYGEN (O_2)
O_2
ALGAE
THE ORIGIN OF LIFE
EARTH'S EARLY OCEANS

There are different types of algae;

the ones that can be seen with the naked eye (seaweed), and very small ones that cannot be seen without a microscope.

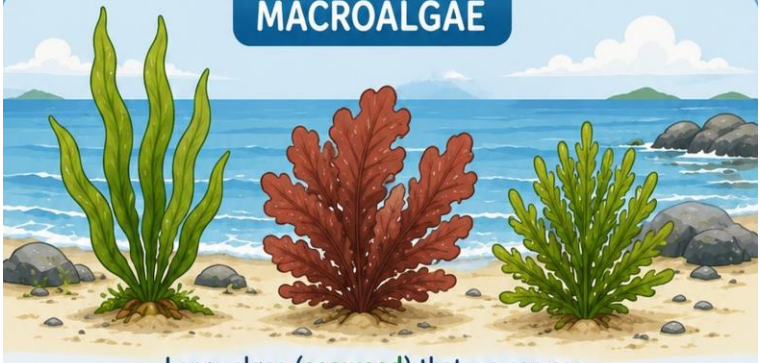
MICROALGAE





Very small algae that cannot be seen without a microscope.

MACROALGAE



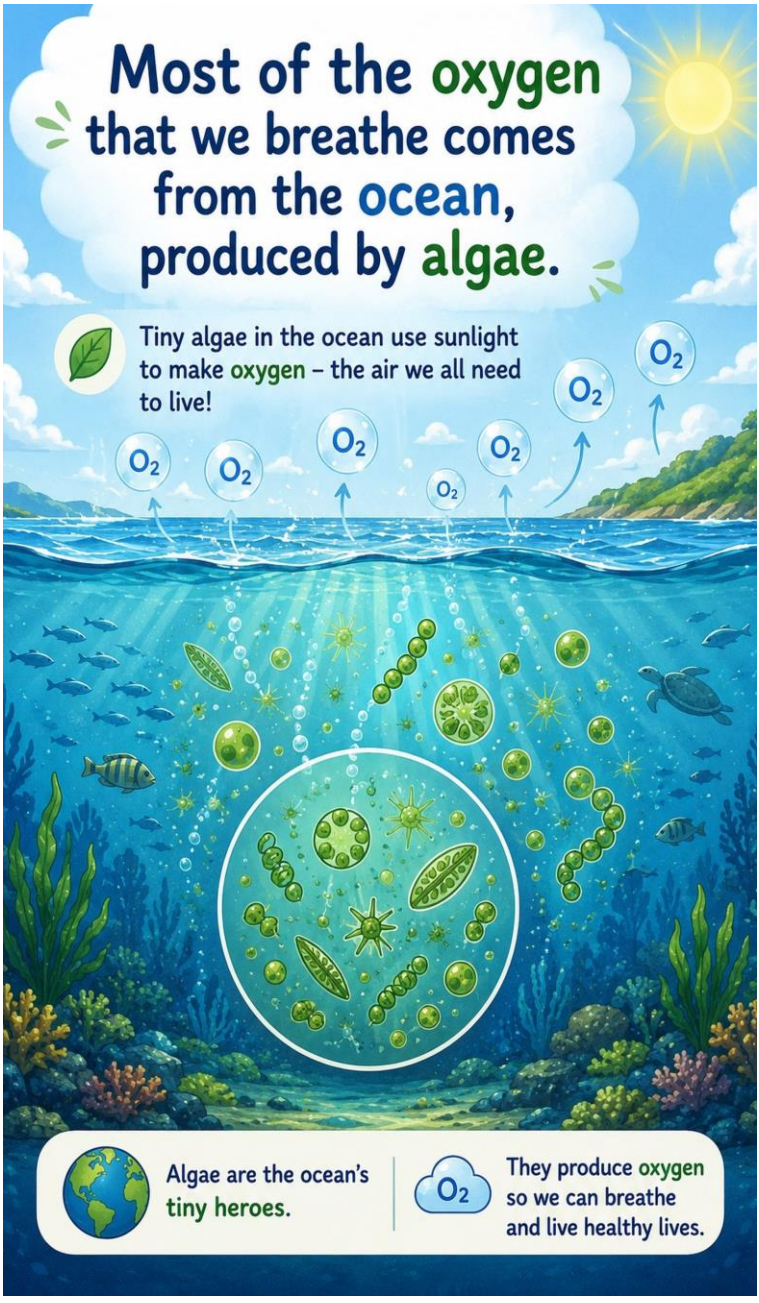
Large algae (seaweed) that we can see with our eyes. They live in oceans and seas.





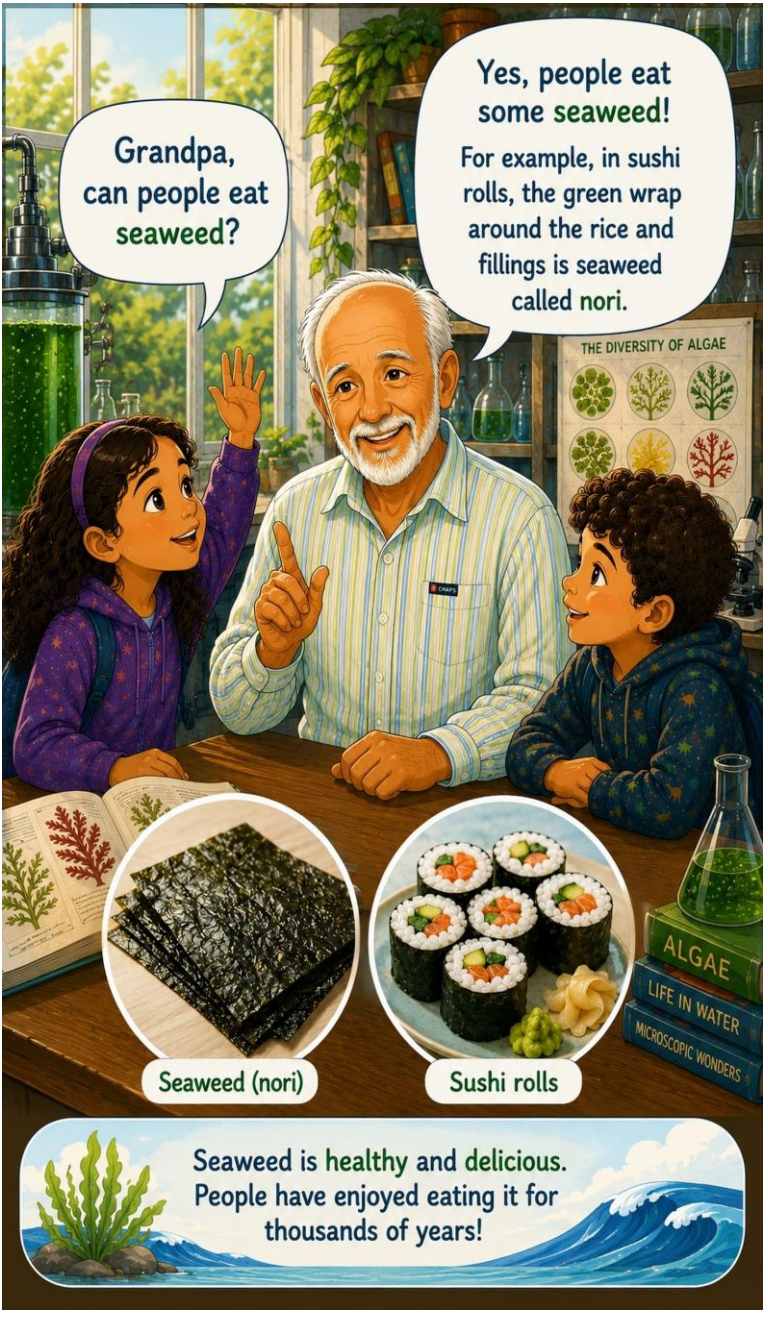
Most of the oxygen that we breathe comes from the ocean, produced by algae.

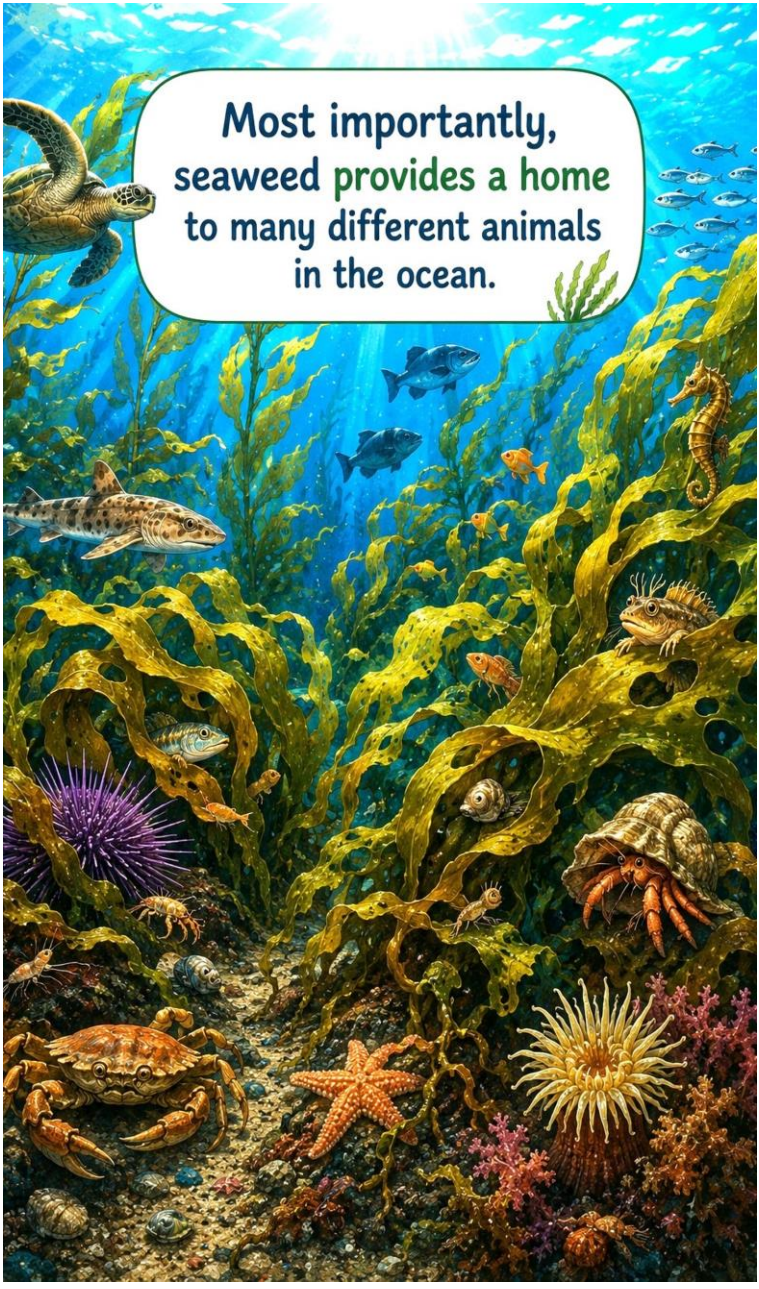
Tiny algae in the ocean use sunlight to make oxygen – the air we all need to live!

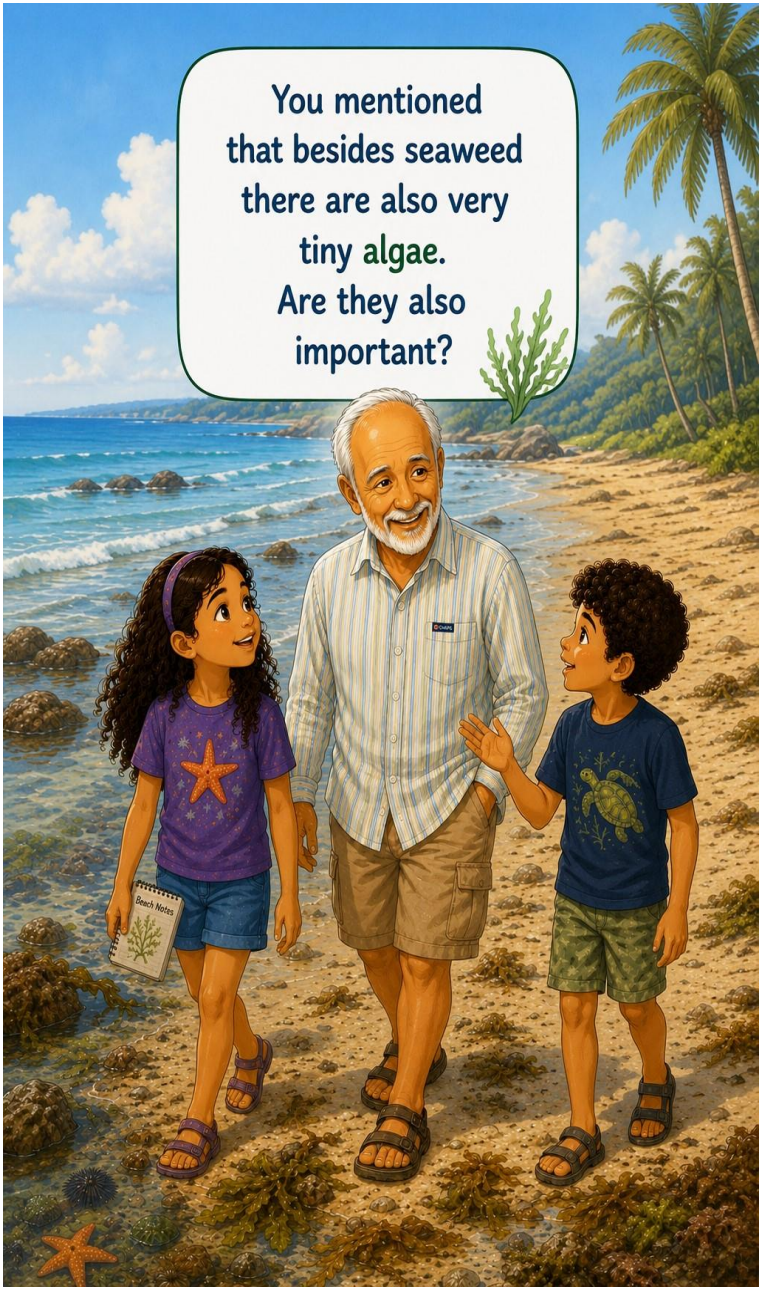


Algae are the ocean's tiny heroes.

They produce oxygen so we can breathe and live healthy lives.


Grandpa, can people eat seaweed?
Yes, people eat some seaweed!
For example, in sushi rolls, the green wrap around the rice and fillings is seaweed called nori.
THE DIVERSITY OF ALGAE
ALGAE
LIFE IN WATER
MICROSCOPIC WONDERS
Seaweed (nori)
Sushi rolls
Seaweed is healthy and delicious. People have enjoyed eating it for thousands of years!


Most importantly, seaweed provides a home to many different animals in the ocean.

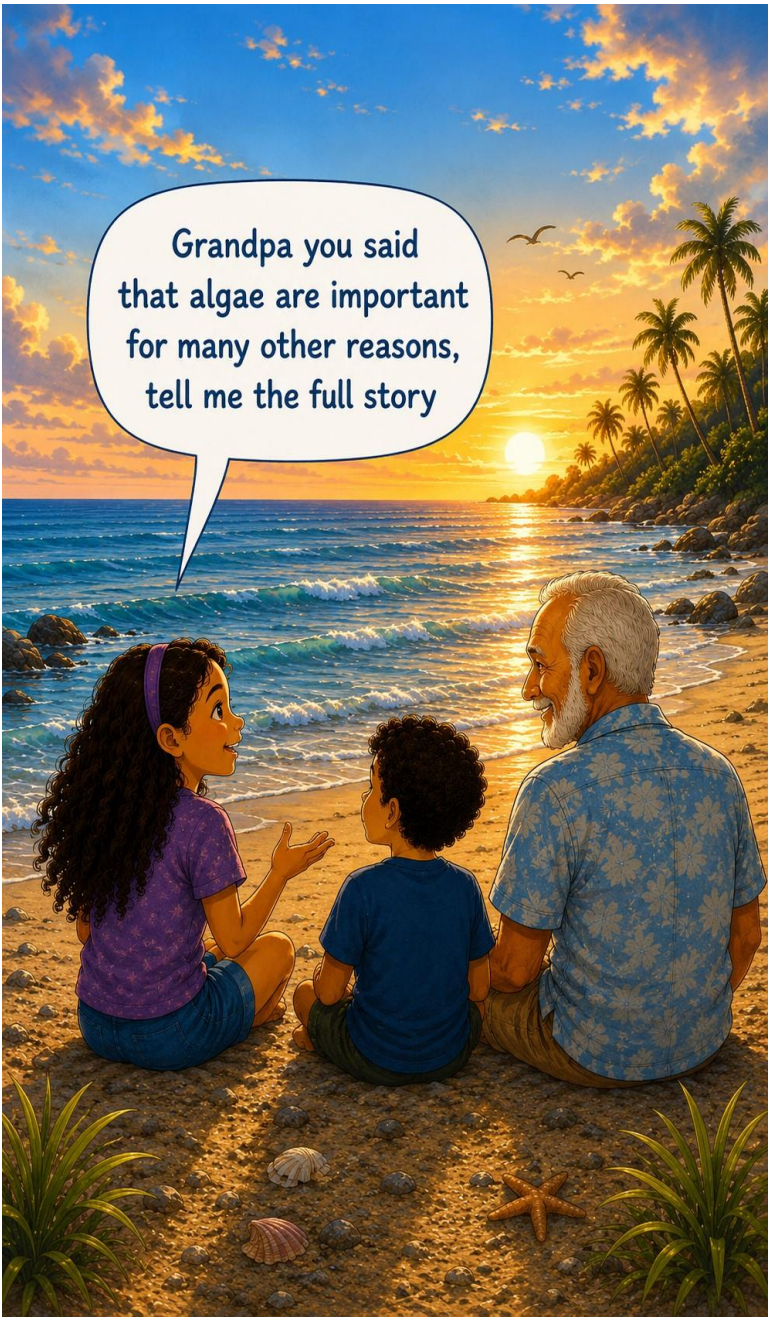

You mentioned that besides seaweed there are also very tiny algae. Are they also important?
Beach Notes

Yes! Microalgae are very important

You see, everything starts with the tiny algae, they are eaten by small animals, and they are eaten by fish, and then fish ends up in our plate.



Tiny algae → Small animals → Fish → Fish ends up in our plate → Our plate

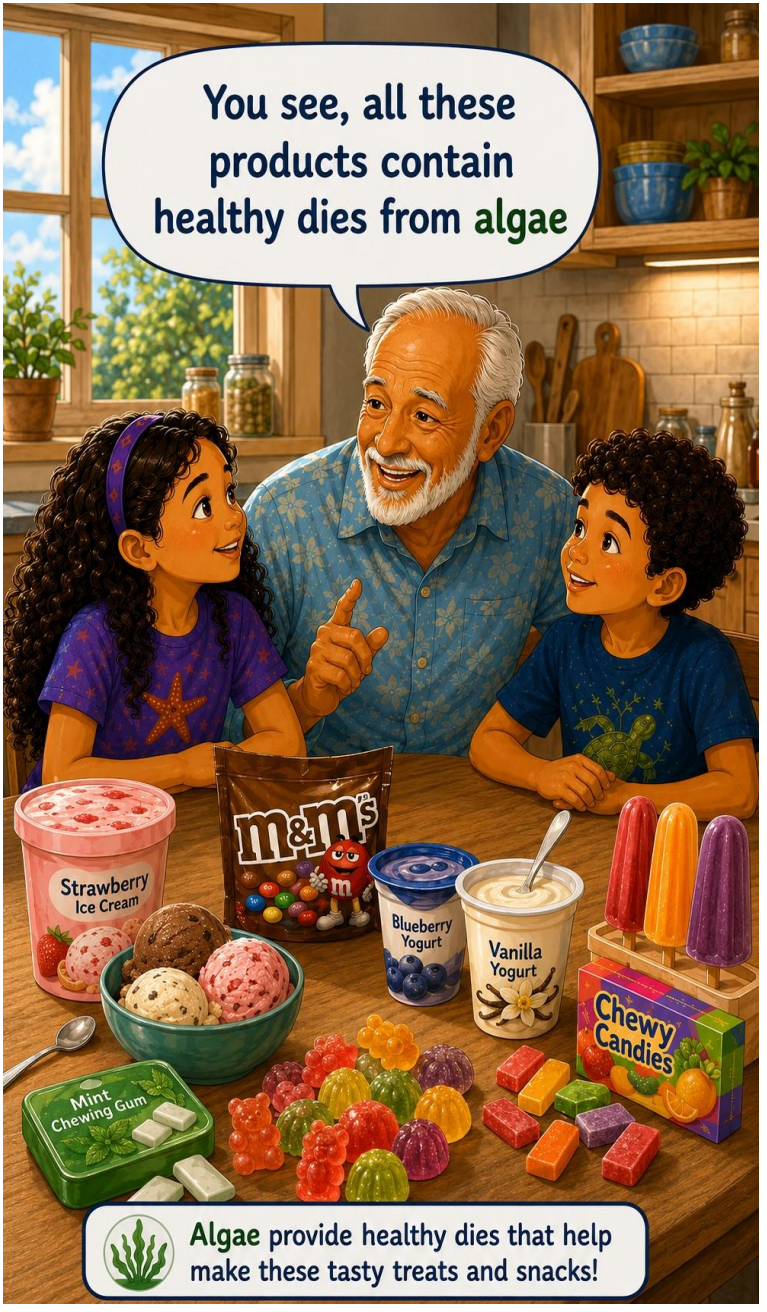

Grandpa you said that algae are important for many other reasons, tell me the full story

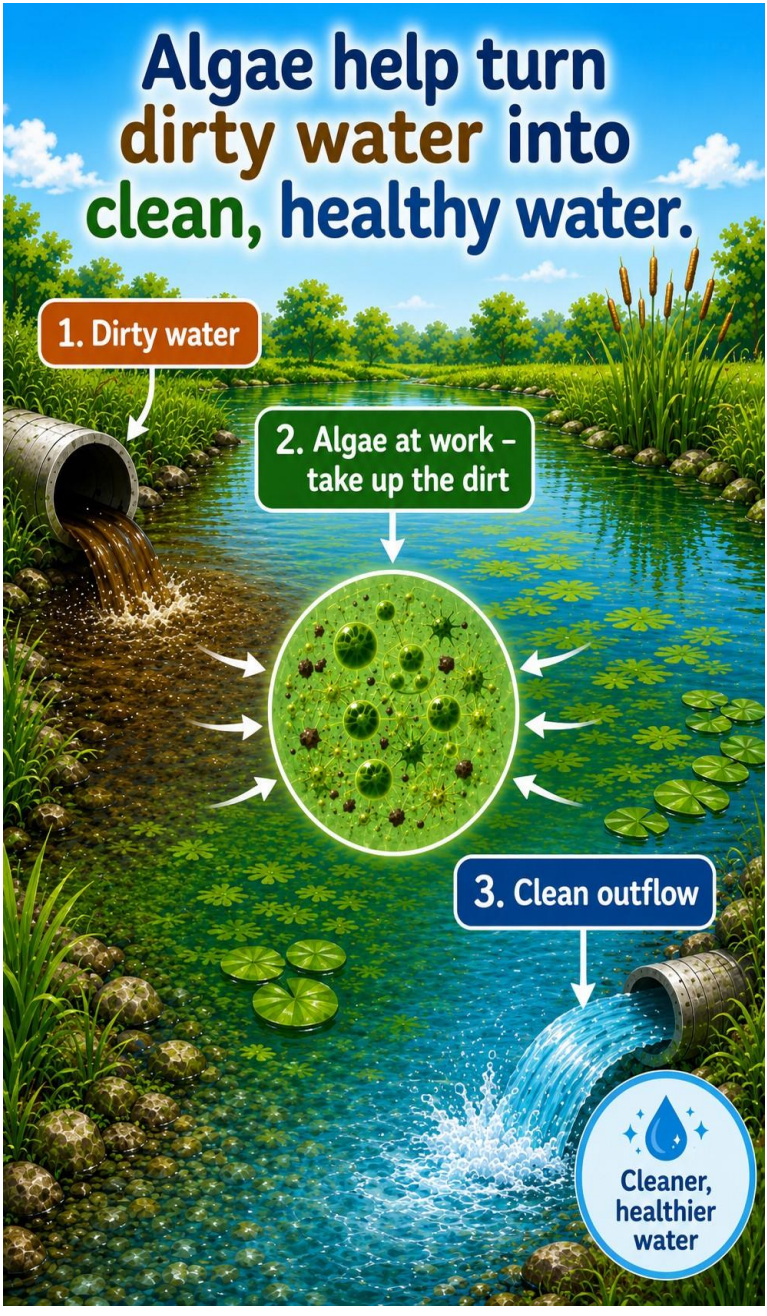
Corals are animals that live together with **algae** – this is called **symbiosis**.





Without **algae** corals would not be so **colorful** and would not **survive**


You see, all these products contain healthy dies from algae
Strawberry Ice Cream
m&m's
Blueberry Yogurt
Vanilla Yogurt
Chewy Candies
Mint Chewing Gum
Algae provide healthy dies that help make these tasty treats and snacks!


Algae help turn dirty water into clean, healthy water.
1. Dirty water
2. Algae at work – take up the dirt
3. Clean outflow
Cleaner, healthier water


Blue-green algae provide food for the rice plants so that farmers do not have to buy expensive fertilizers
Blue-green algae release nutrients in the water. Rice plants absorb these nutrients and grow strong.

Algae such as SPIRULINA can be grown in man-made ponds



Spirulina is good for you!



Helps your body stay strong



Helps build muscles



Gives you energy



A natural food from nature



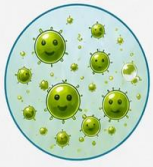
You can eat spirulina as

- tablets,
- powder,
- or in smoothies.



It's a superfood! ⭐

In the future, on long space travels, astronauts will grow their own food – **algae!**

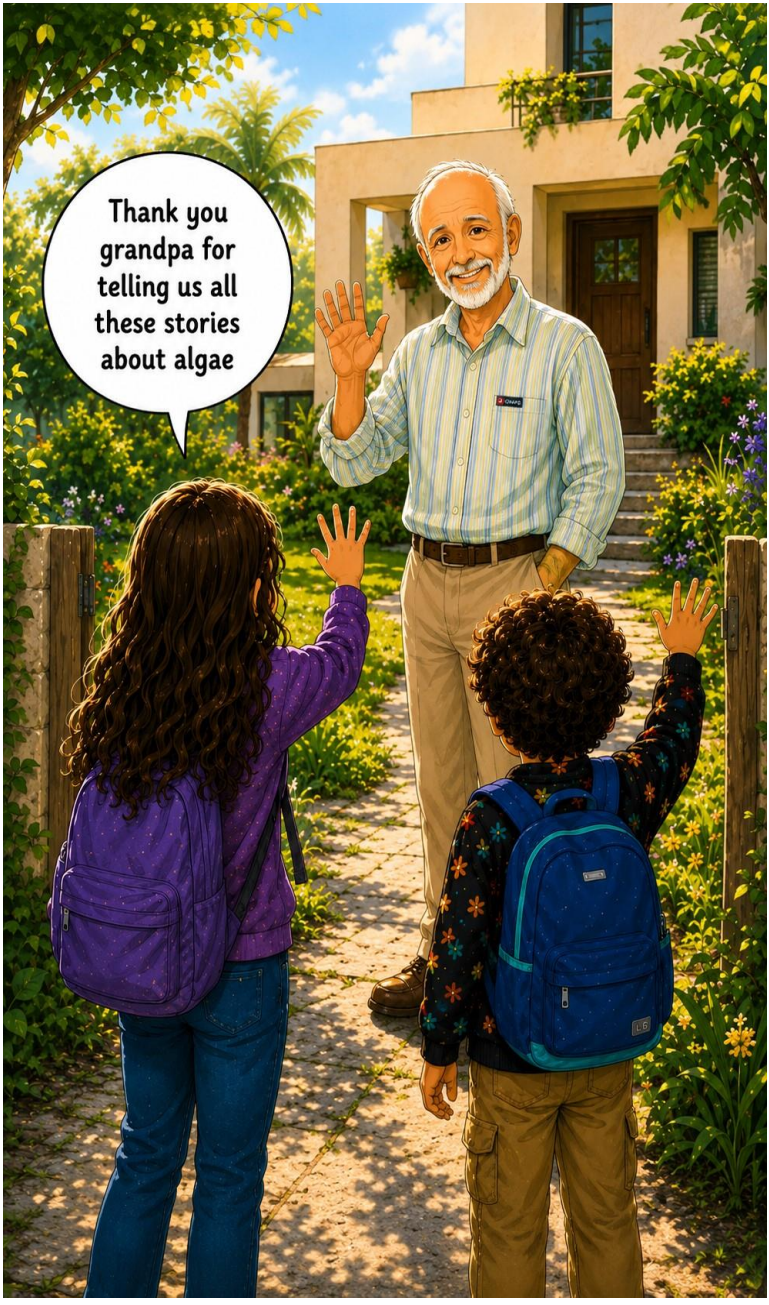


- They make oxygen to help astronauts breathe.
- They can be turned into tasty food.
- They are packed with nutrients and keep astronauts strong.

Algae – tiny heroes for big adventures!

ALGAE BIOREACTOR

Algae can feed astronauts, protect our planet, and help us explore further than ever before!


Thank you grandpa for telling us all these stories about algae


When they returned home, Alina and Rafael excitedly told their parents everything they had learned about algae.
We learned so much about algae from grandpa
Tiny wonders.
Big impacts.
Our future.


When they went to a restaurant, Rafael made his first order
SUPERFOODS
GOOD FOR YOU
GOOD FOR EARTH
I will take chocolate-spirulina smoothy.
ALGAE GOOD
FOR YOU. FOR EARTH.
GOOD FOOD FOR A BETTER FUTURE
TODAY'S SPECIAL
SPIRULINA POWER SMOOTHY
• SPIRULINA
• BANANA
• ALMOND MILK
• DATES
• COCOA (OPTIONAL)