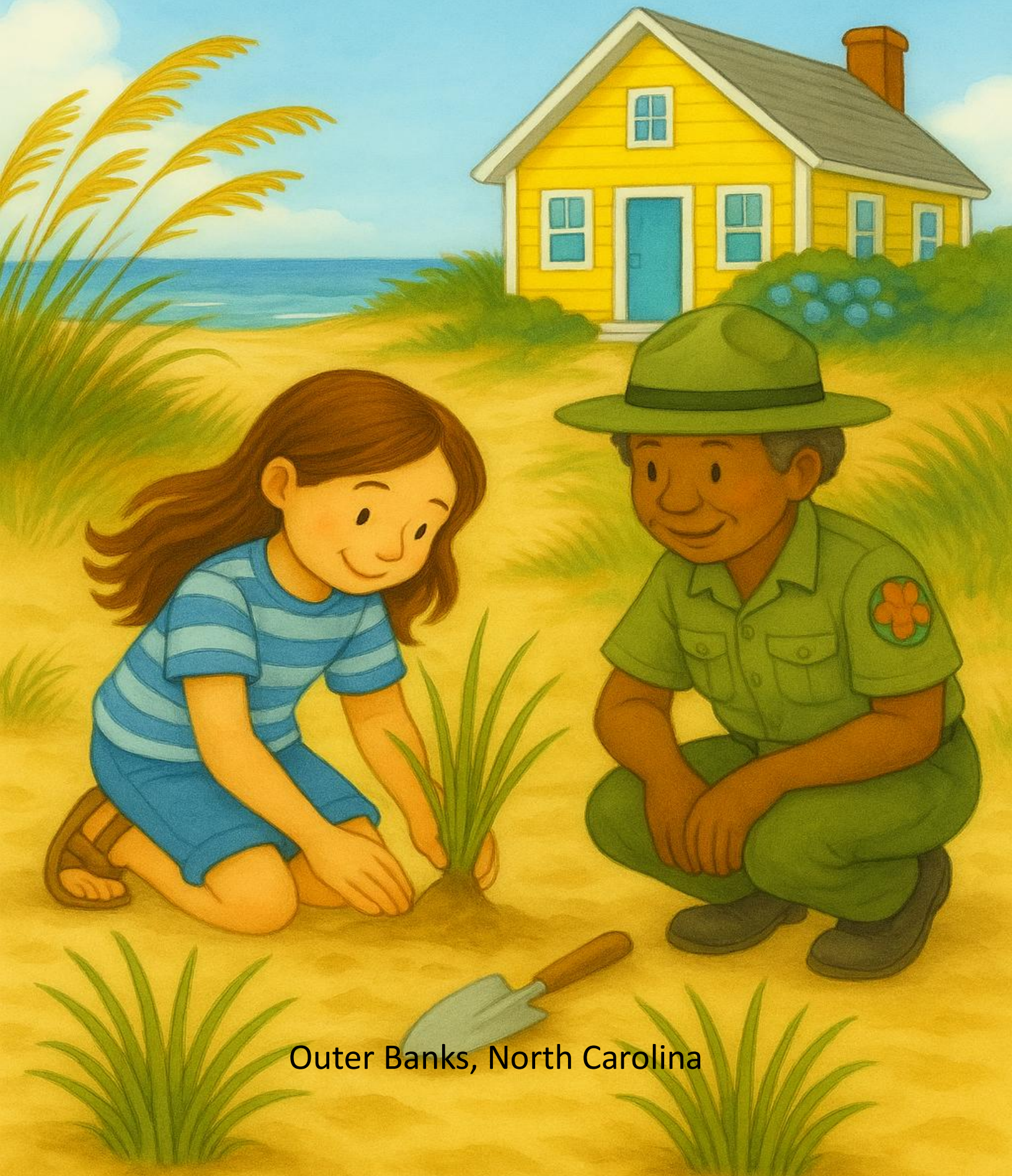
Healthy Yards, Happy Oceans



Outer Banks, North Carolina

Forward

This storybook was created by the Outer Banks Coastal Conservation (OBCC), a nonprofit organization whose mission is to foster environmental stewardship and a deeper connection to the Outer Banks of North Carolina through outreach, education, and conservation efforts.

We believe that small stories can spark big change. That is why we have made this book available as a free resource for parents, teachers, and community members.

All materials in this book may be freely downloaded, shared, printed and used for educational or nonprofit purposes.

To learn more, access additional resources at: www.theobcc.org.

Lila lived in a bright yellow cottage near the dunes of the Outer Banks. She loved the salty breeze, the sound of the waves, and the tiny sandpipers racing along the shore.

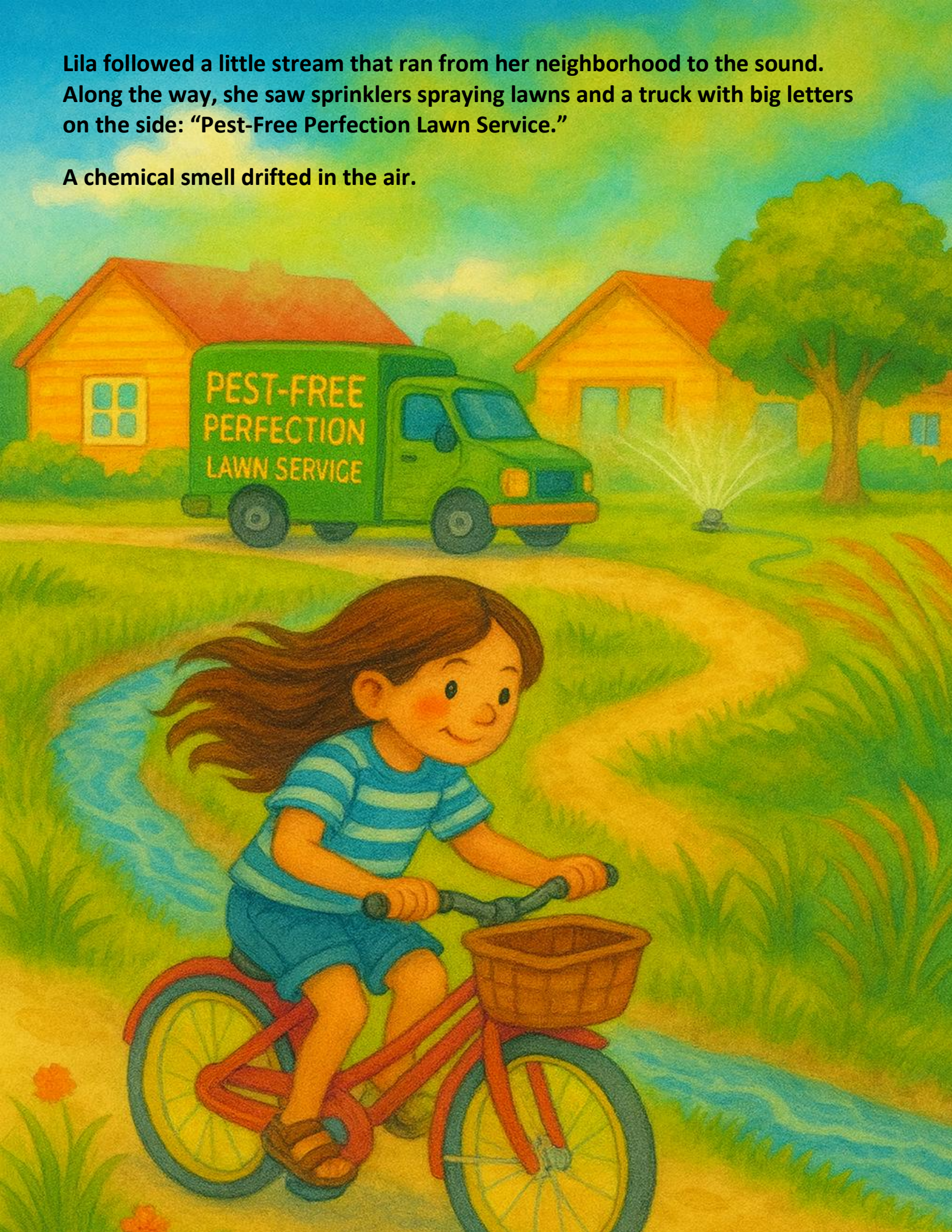
Every morning, she rode her bike past sandy yards, grassy lawns, and blooming flowers on her way to the beach.

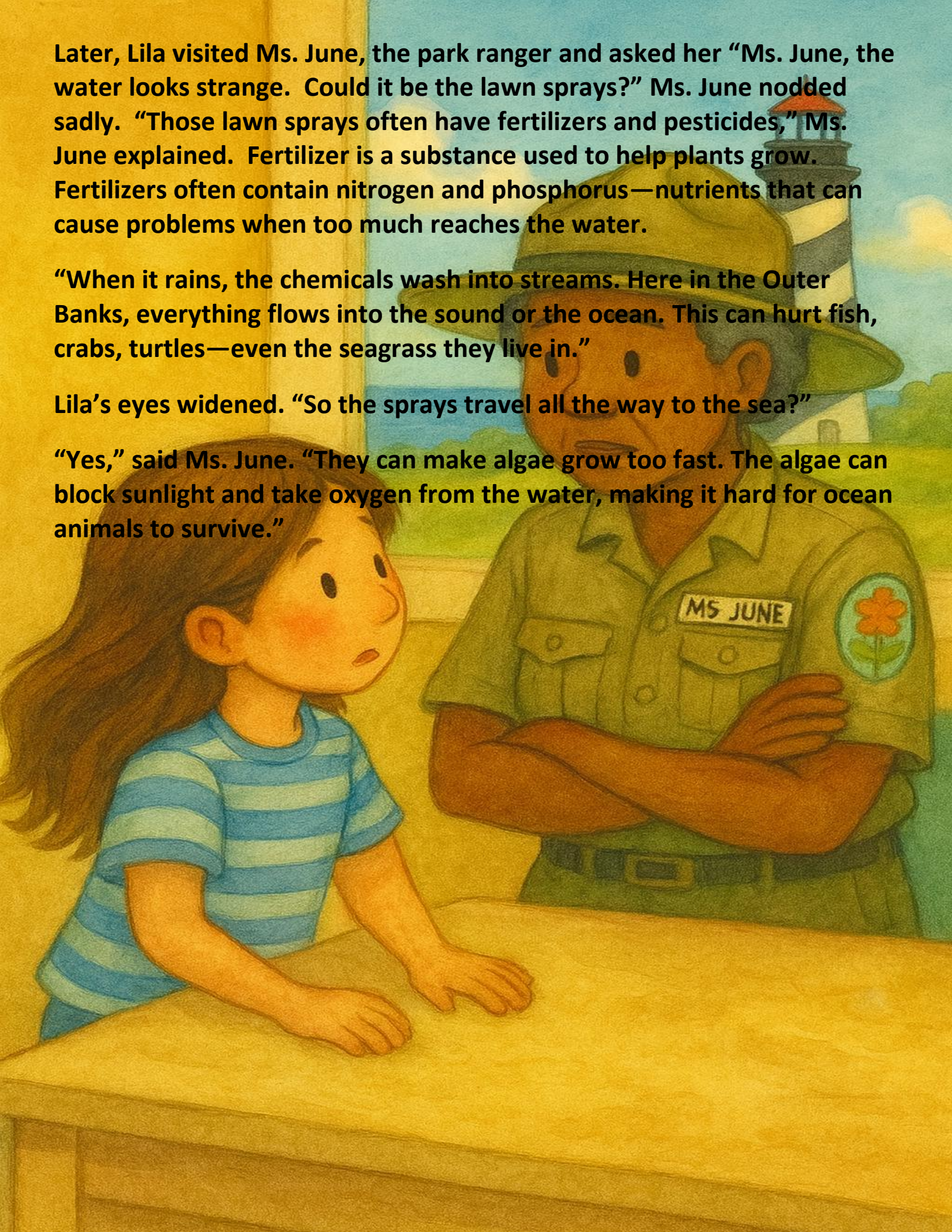
One morning, Lila saw something strange. The water in the sound looked green and cloudy, with foam drifting near the shore.

Her friend Finn was there skipping shells.
“The fish seem tired,” Finn said. “They’re barely moving.”

Lila followed a little stream that ran from her neighborhood to the sound. Along the way, she saw sprinklers spraying lawns and a truck with big letters on the side: “Pest-Free Perfection Lawn Service.”

A chemical smell drifted in the air.





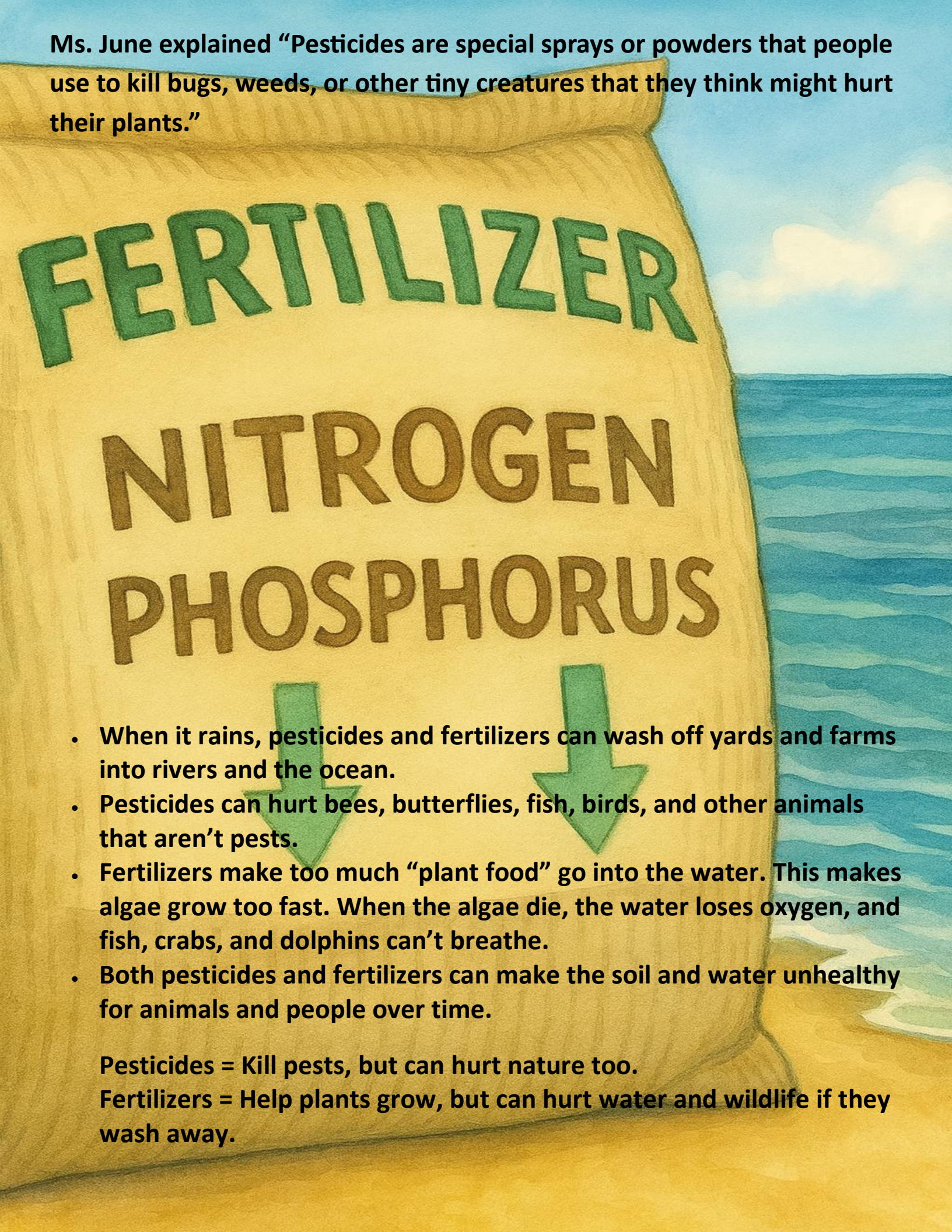
Later, Lila visited Ms. June, the park ranger and asked her “Ms. June, the water looks strange. Could it be the lawn sprays?” Ms. June nodded sadly. “Those lawn sprays often have fertilizers and pesticides,” Ms. June explained. Fertilizer is a substance used to help plants grow. Fertilizers often contain nitrogen and phosphorus—nutrients that can cause problems when too much reaches the water.

“When it rains, the chemicals wash into streams. Here in the Outer Banks, everything flows into the sound or the ocean. This can hurt fish, crabs, turtles—even the seagrass they live in.”

Lila’s eyes widened. “So the sprays travel all the way to the sea?”

“Yes,” said Ms. June. “They can make algae grow too fast. The algae can block sunlight and take oxygen from the water, making it hard for ocean animals to survive.”

Ms. June explained “Pesticides are special sprays or powders that people use to kill bugs, weeds, or other tiny creatures that they think might hurt their plants.”



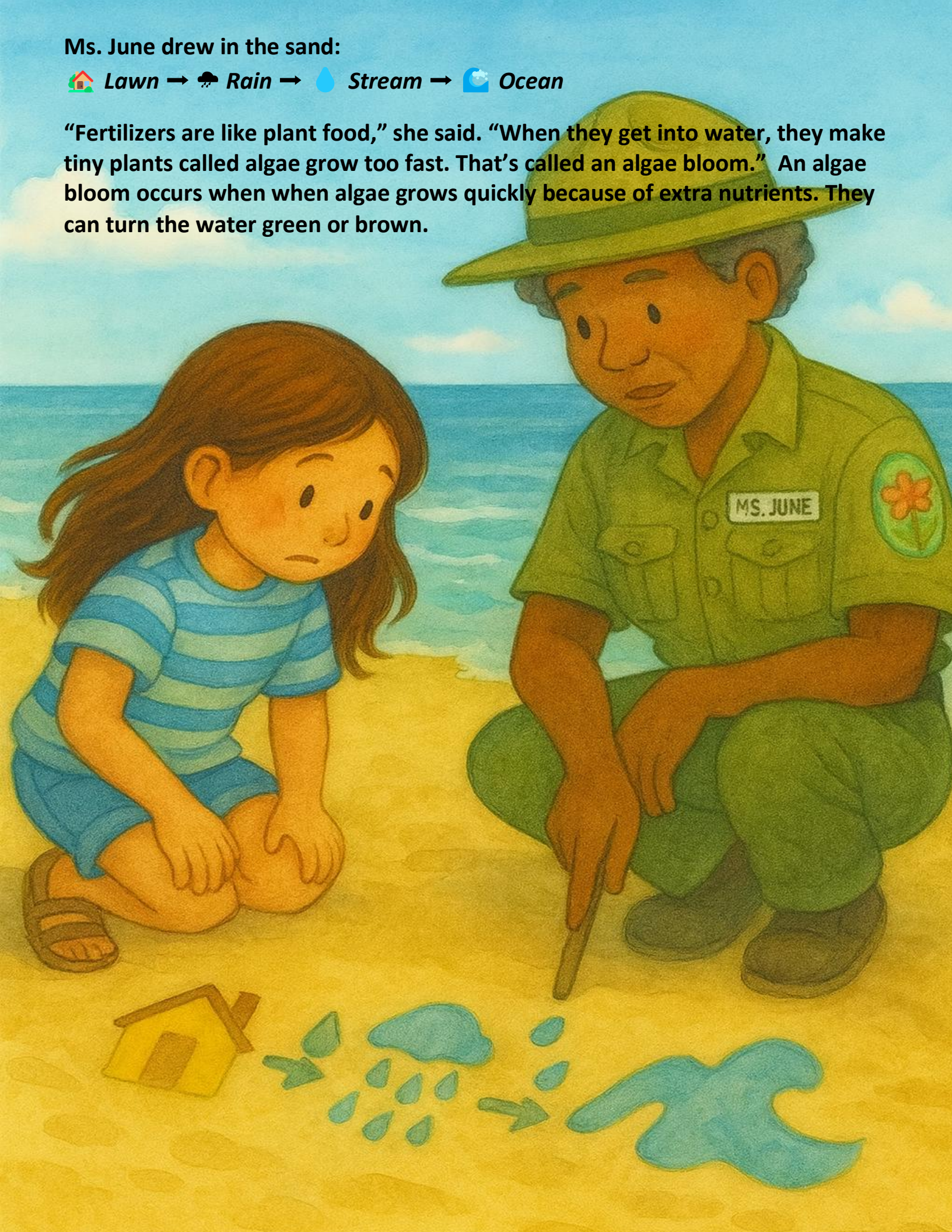
- When it rains, pesticides and fertilizers can wash off yards and farms into rivers and the ocean.
- Pesticides can hurt bees, butterflies, fish, birds, and other animals that aren’t pests.
- Fertilizers make too much “plant food” go into the water. This makes algae grow too fast. When the algae die, the water loses oxygen, and fish, crabs, and dolphins can’t breathe.
- Both pesticides and fertilizers can make the soil and water unhealthy for animals and people over time.

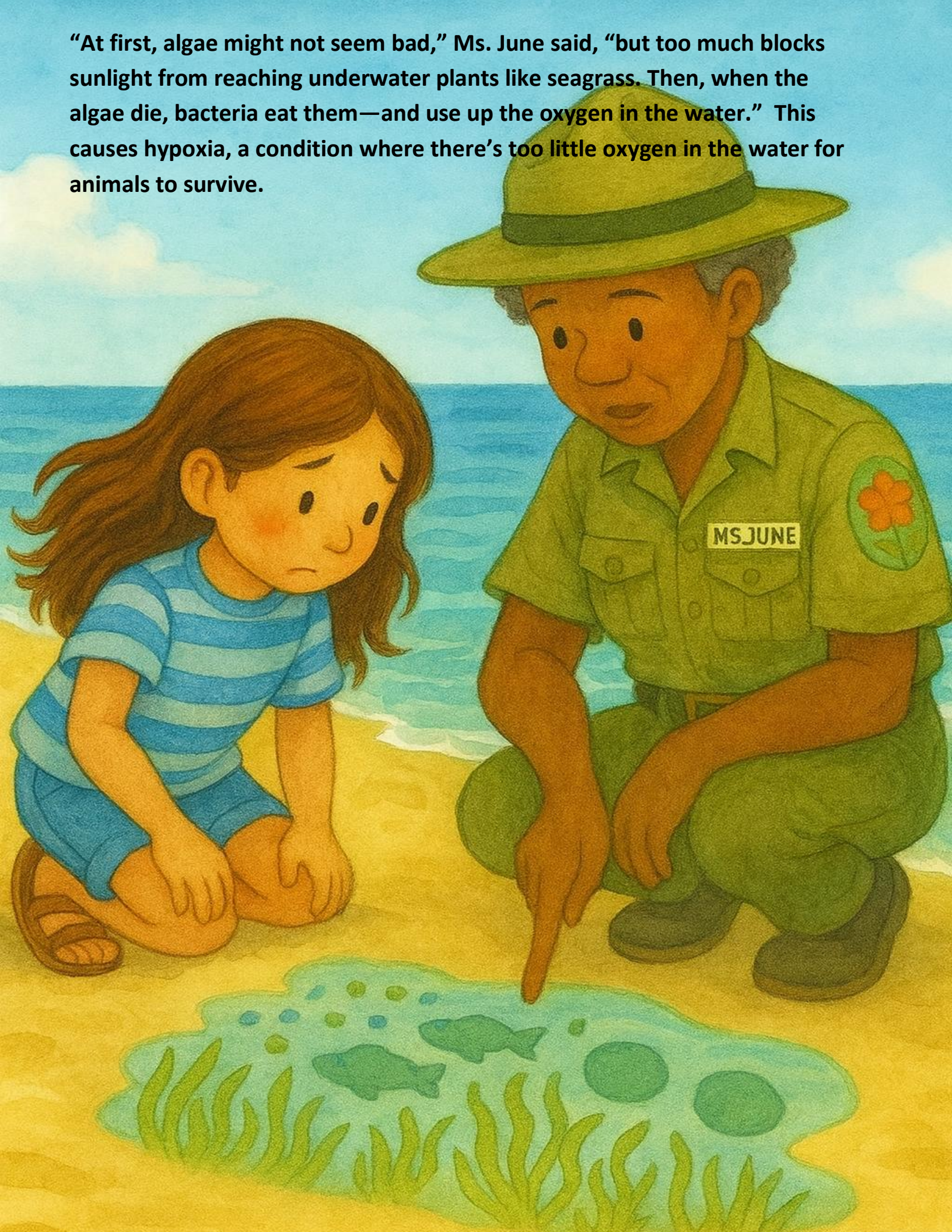
Pesticides = Kill pests, but can hurt nature too.
Fertilizers = Help plants grow, but can hurt water and wildlife if they wash away.

Ms. June drew in the sand:

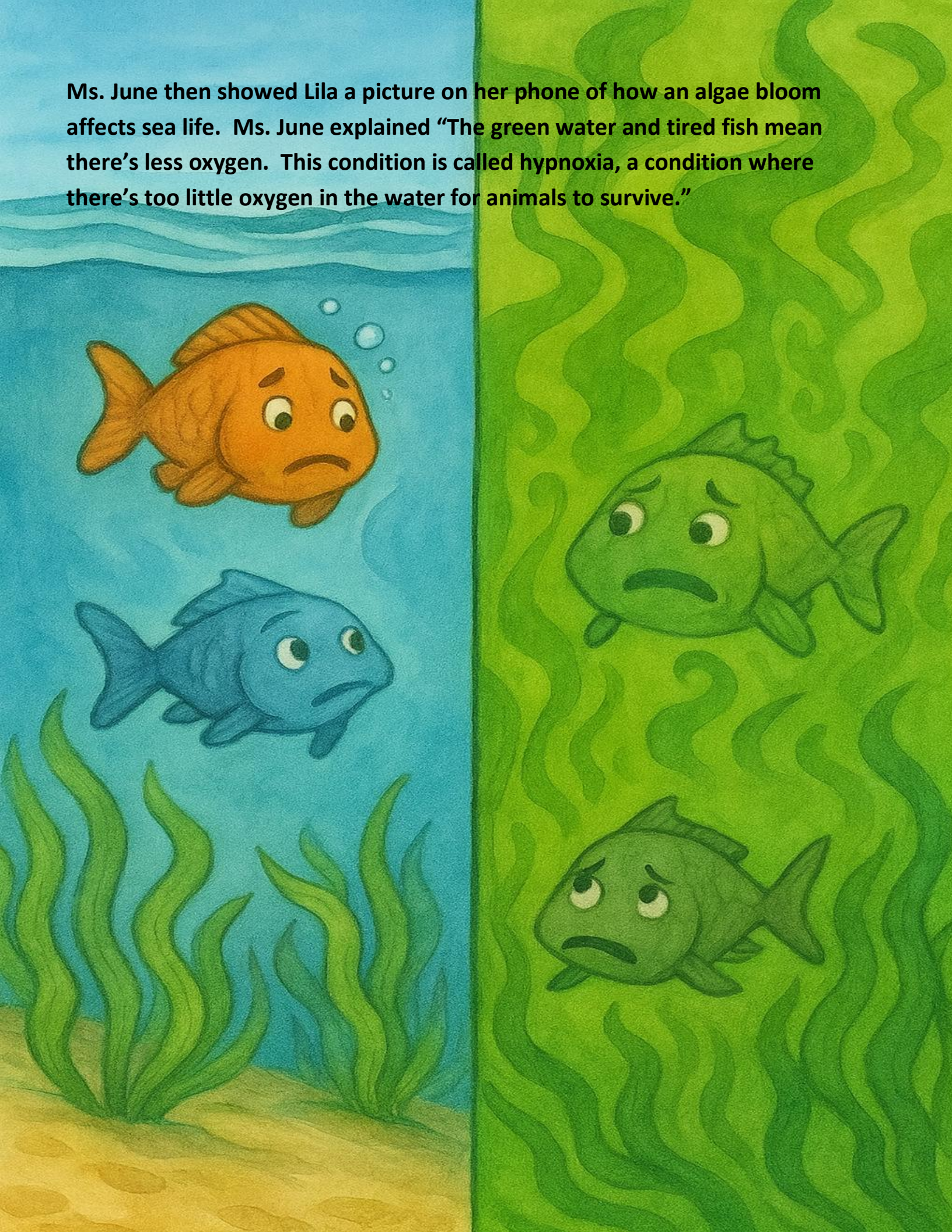
🏠 ***Lawn*** ➞ 🌧️ ***Rain*** ➞ 💧 ***Stream*** ➞ 🌊 ***Ocean***

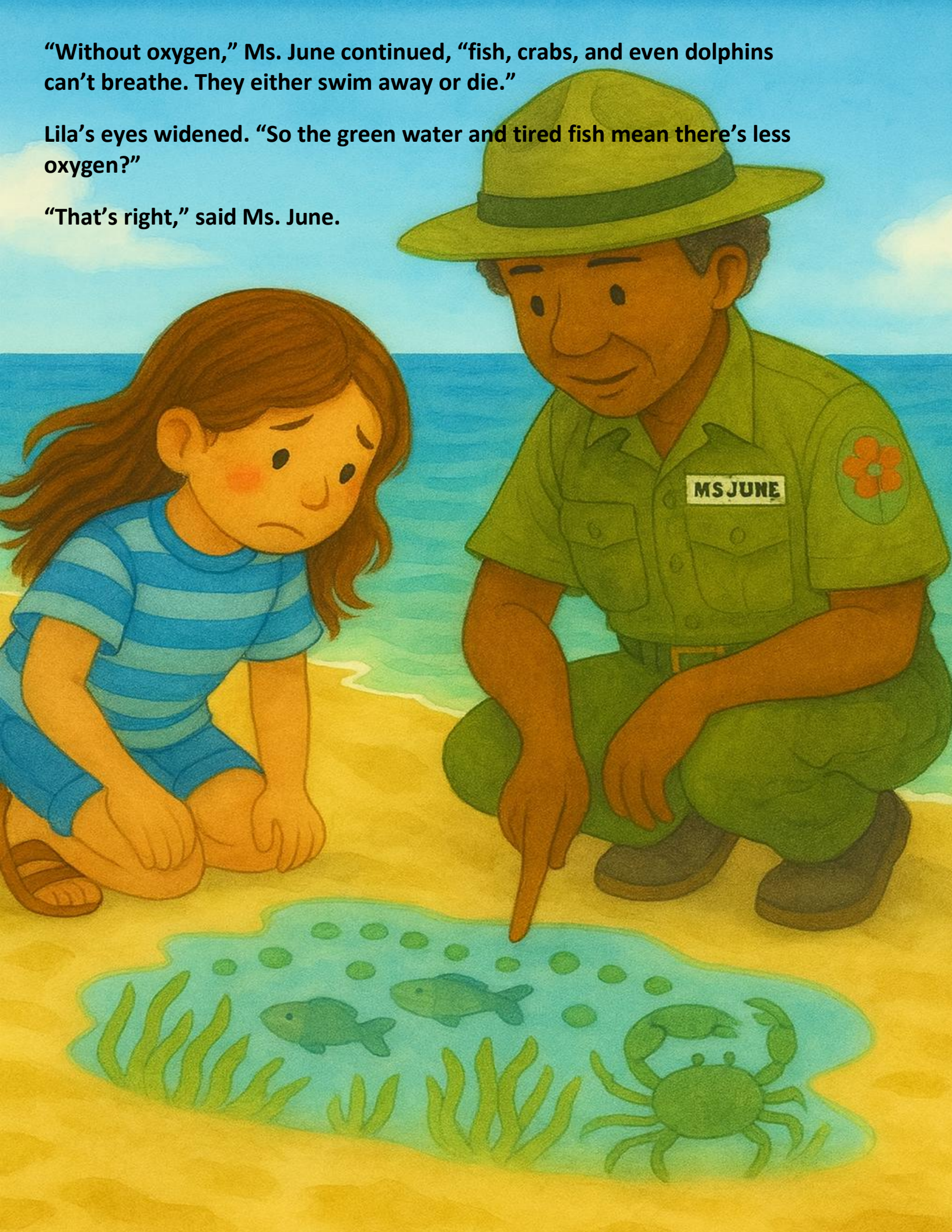
“Fertilizers are like plant food,” she said. “When they get into water, they make tiny plants called algae grow too fast. That’s called an algae bloom.” An algae bloom occurs when when algae grows quickly because of extra nutrients. They can turn the water green or brown.




“At first, algae might not seem bad,” Ms. June said, “but too much blocks sunlight from reaching underwater plants like seagrass. Then, when the algae die, bacteria eat them—and use up the oxygen in the water.” This causes hypoxia, a condition where there’s too little oxygen in the water for animals to survive.
MS JUNE

Ms. June then showed Lila a picture on her phone of how an algae bloom affects sea life. Ms. June explained "The green water and tired fish mean there's less oxygen. This condition is called hypnoxia, a condition where there's too little oxygen in the water for animals to survive."





“Without oxygen,” Ms. June continued, “fish, crabs, and even dolphins can’t breathe. They either swim away or die.”

Lila’s eyes widened. “So the green water and tired fish mean there’s less oxygen?”

“That’s right,” said Ms. June.

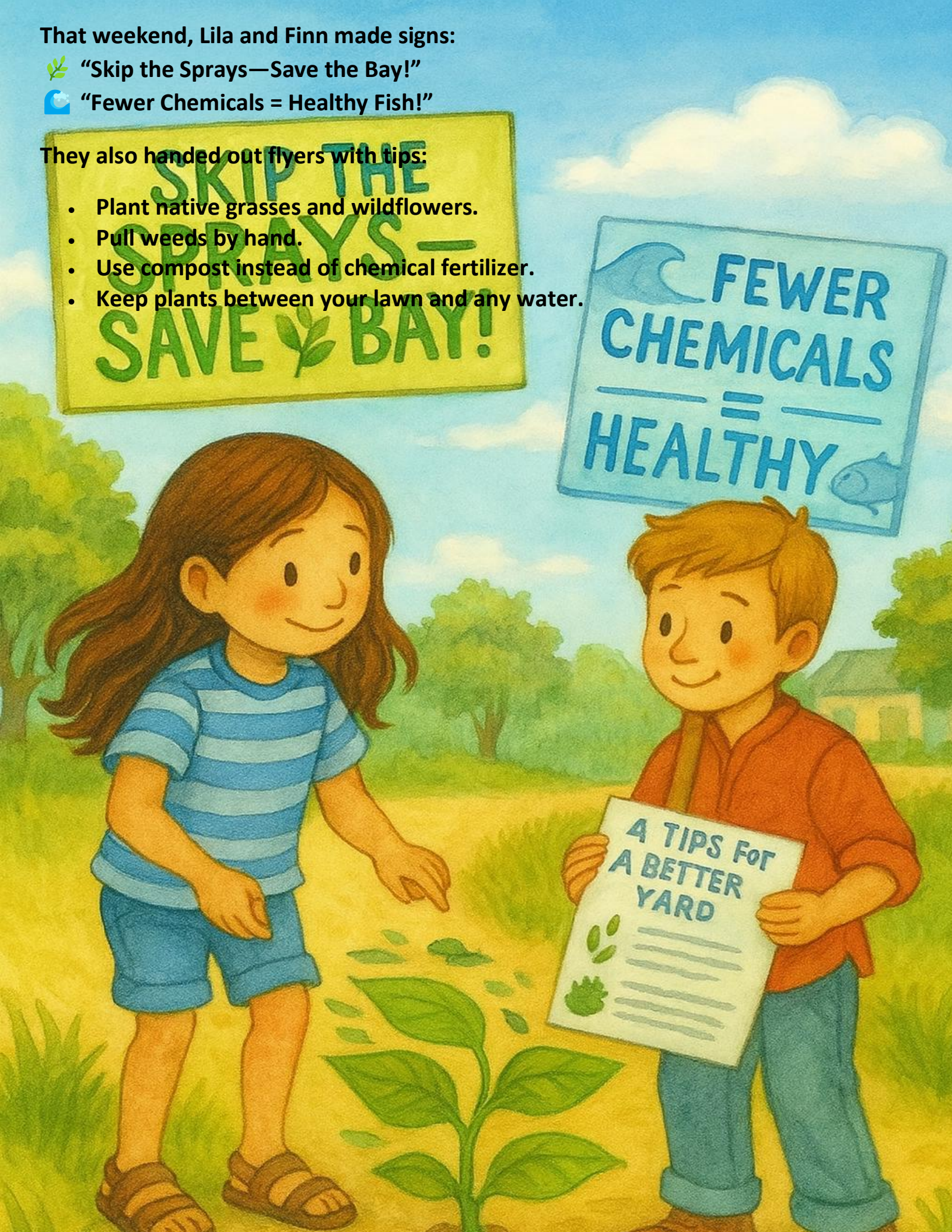
That weekend, Lila and Finn made signs:

🌿 “Skip the Sprays—Save the Bay!”

🌊 “Fewer Chemicals = Healthy Fish!”

They also handed out flyers with tips:

- Plant native grasses and wildflowers.
- Pull weeds by hand.
- Use compost instead of chemical fertilizer.
- Keep plants between your lawn and any water.



Soon, more neighbors joined in.
Mr. Clark swapped his grass for dune-friendly plants.
Mrs. Lee built a rain garden to soak up stormwater before it reached the sea.

Weeks later, the water began to clear. Seagrass waved in the current, and fish darted through the shallows.

“See?” Lila said. “Taking care of the land means taking care of the sea.”

Did You Know?

Some people spray their lawns with fertilizers and pesticides to make the grass look perfect.

🚫 **But those sprays can wash into rivers and the ocean when it rains.**

🐟 **This can make algae grow too fast, block sunlight, take away oxygen, and make it hard for fish, turtles, and crabs to survive.**

🐝 **Pesticides can also hurt bees, butterflies, and birds—not just "bad" bugs.**

Good News!
You don't need those sprays to have a beautiful yard. Try these instead:

- 🌼 **Plant flowers and native grasses that grow well without chemicals.**
- 🐞 **Welcome nature's helpers like ladybugs to eat pests.**
- ♻️ **Use compost to feed your plants naturally.**
- 🌧️ **Build a rain garden to soak up water before it reaches the sea.**

Healthy yards = healthy oceans! 🌊💙

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