

The Outer Banks SCIENCE FAIR

2025



Outer Banks, North Carolina

Forward

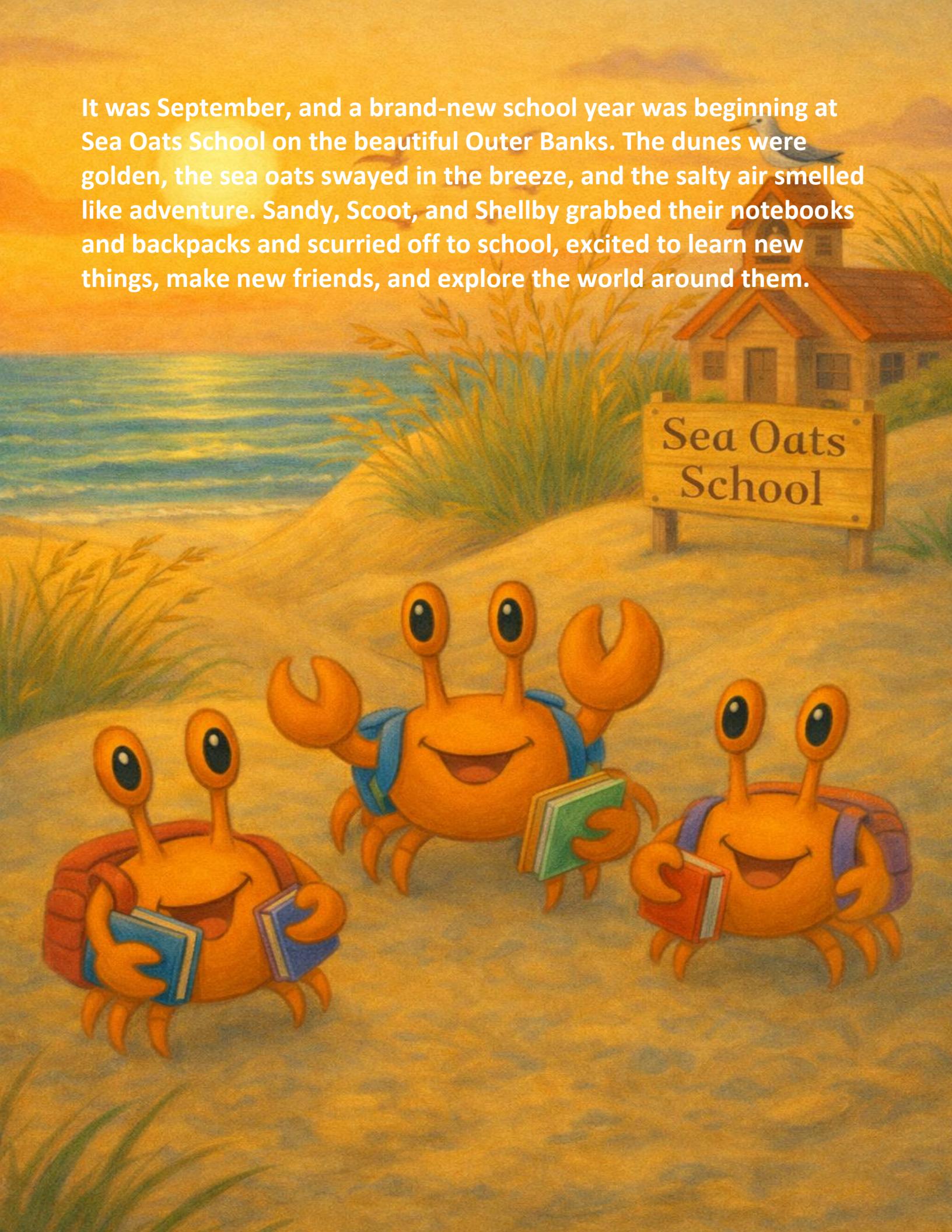
This storybook was created by the Outer Banks Coastal Conservation (OBCC), a nonprofit organization whose mission is to foster environmental stewardship and a deeper connection to the Outer Banks of North Carolina through outreach, education, and conservation efforts.

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.

It was September, and a brand-new school year was beginning at Sea Oats School on the beautiful Outer Banks. The dunes were golden, the sea oats swayed in the breeze, and the salty air smelled like adventure. Sandy, Scoot, and Shellby grabbed their notebooks and backpacks and scurried off to school, excited to learn new things, make new friends, and explore the world around them.

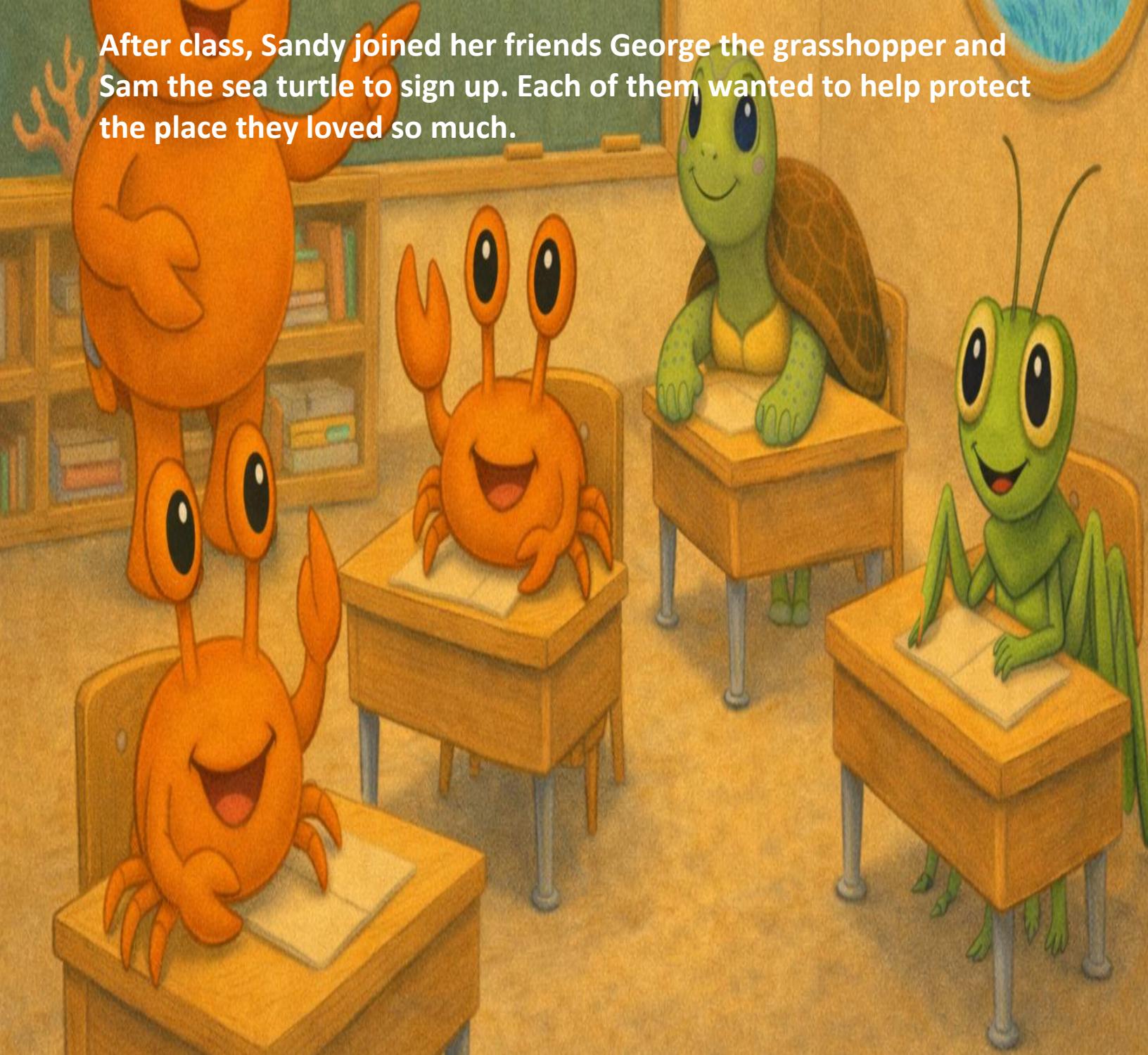


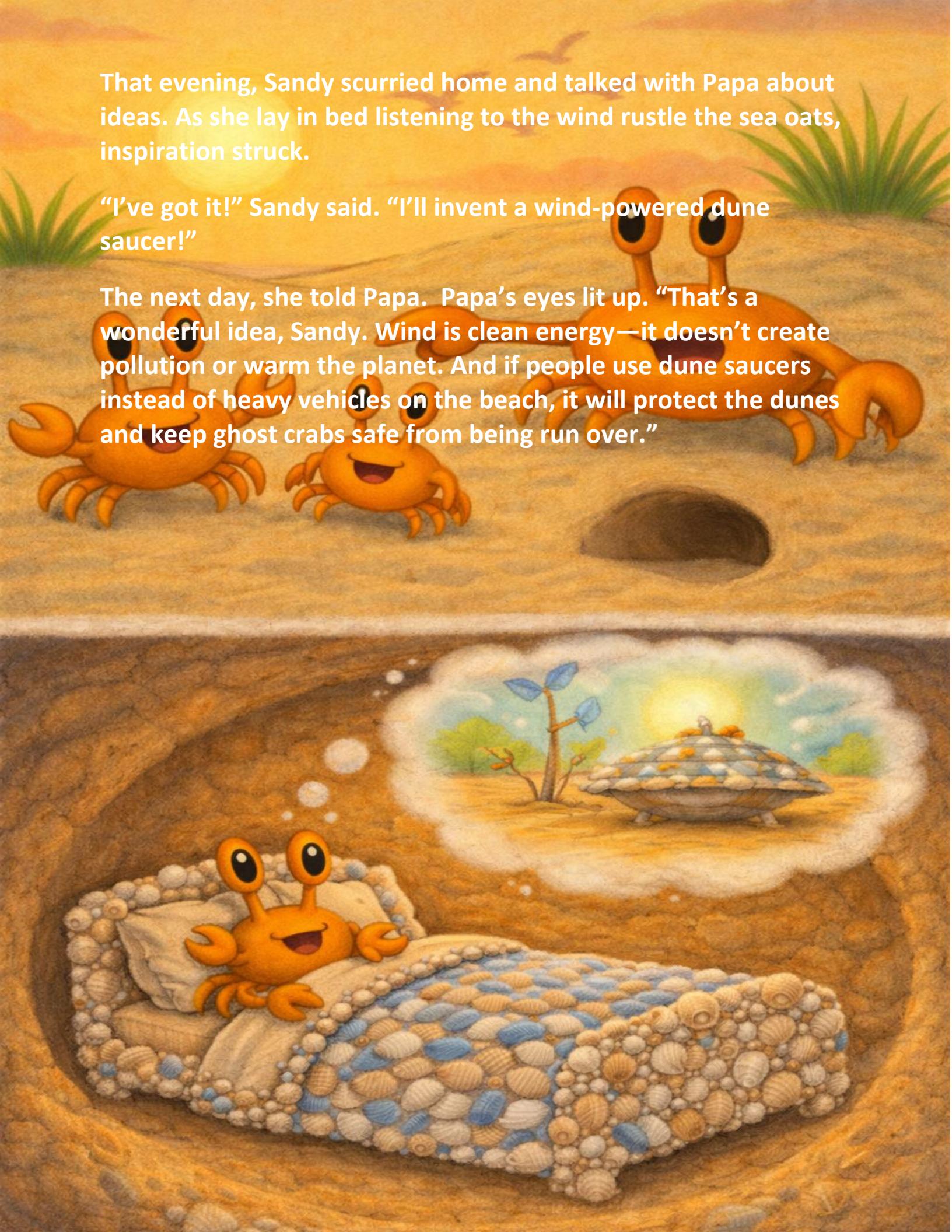
During science class, their teacher, Professor Driftclaws, tapped her chalk against the board and smiled.

"I have an exciting announcement," she said. "In November, we will be holding the Outer Banks Science Fair. This year's theme is *environmental protection and coastal conservation*—how we can take care of our beaches, oceans, air, and wildlife."

The classroom buzzed with excitement.

After class, Sandy joined her friends George the grasshopper and Sam the sea turtle to sign up. Each of them wanted to help protect the place they loved so much.



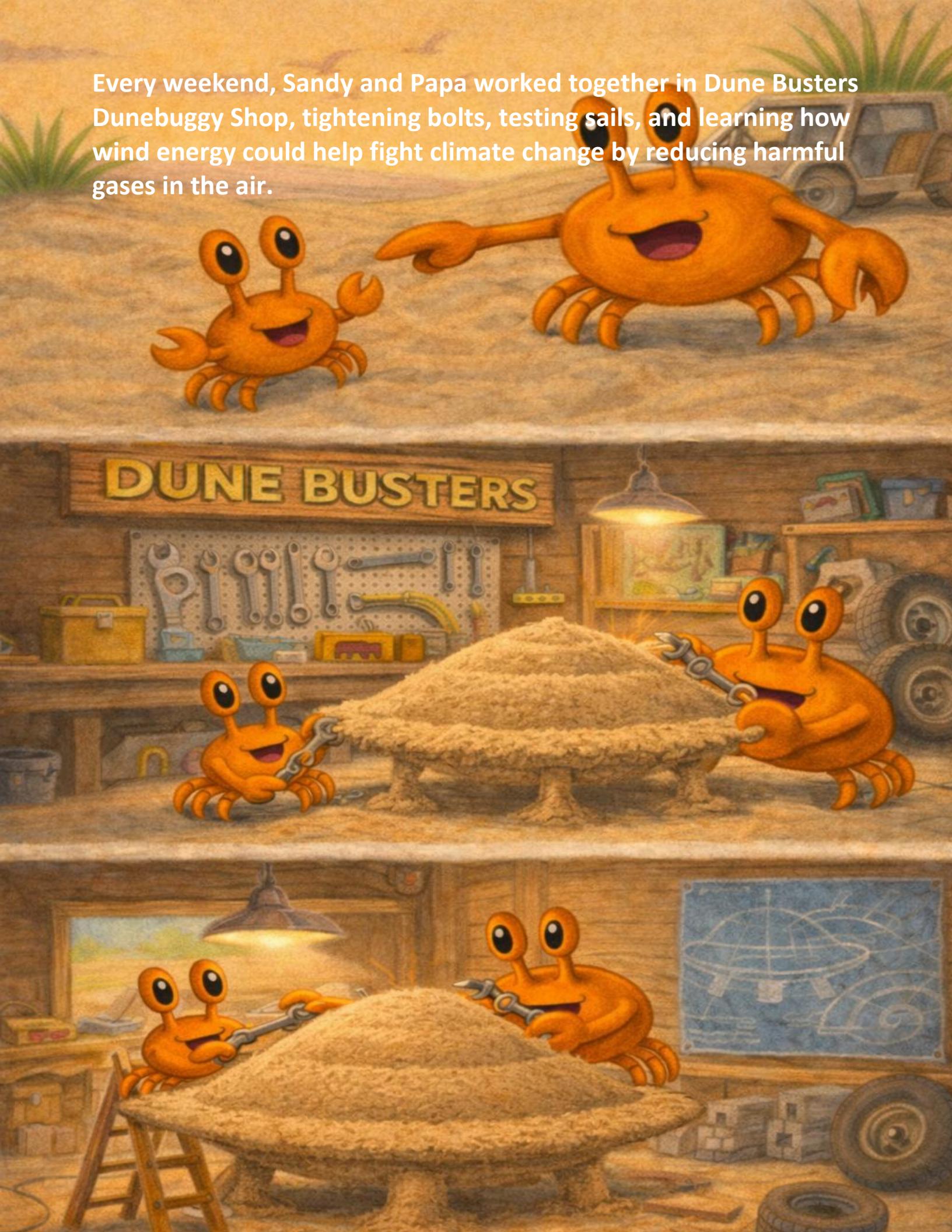


That evening, Sandy scurried home and talked with Papa about ideas. As she lay in bed listening to the wind rustle the sea oats, inspiration struck.

“I’ve got it!” Sandy said. “I’ll invent a wind-powered dune saucer!”

The next day, she told Papa. Papa’s eyes lit up. “That’s a wonderful idea, Sandy. Wind is clean energy—it doesn’t create pollution or warm the planet. And if people use dune saucers instead of heavy vehicles on the beach, it will protect the dunes and keep ghost crabs safe from being run over.”

Every weekend, Sandy and Papa worked together in Dune Busters Dunebuggy Shop, tightening bolts, testing sails, and learning how wind energy could help fight climate change by reducing harmful gases in the air.



Meanwhile, George had been busy too. He explained his idea proudly. "I'm inventing a Sky Vacuum," he said. "It will gently pull pollution and greenhouse gases out of the atmosphere. The machine runs on solar power, so it uses energy from the sun instead of burning fossil fuels."

George knew that too much pollution traps heat around the Earth, causing climate change—making storms stronger, oceans warmer, and habitats unsafe. He hoped his invention would help clean the air and protect plants, animals, and people.



Sam the sea turtle was working on his own important invention. "Wouldn't it be wonderful if the ocean were free of trash?" he said. "Plastic can hurt turtles, fish, and seabirds. I'm building a special electric boat that collects floating debris before it sinks."

He named his invention Captain Cleanwave. Powered by electricity instead of fuel, the boat would glide quietly through the water, scooping up trash while keeping the ocean calm and safe for sea life.



All three friends worked hard every weekend, helping one another, sharing ideas, and cheering each other on. By the time November arrived, they felt proud—not just of their inventions, but of the teamwork and care they had shown for the planet.



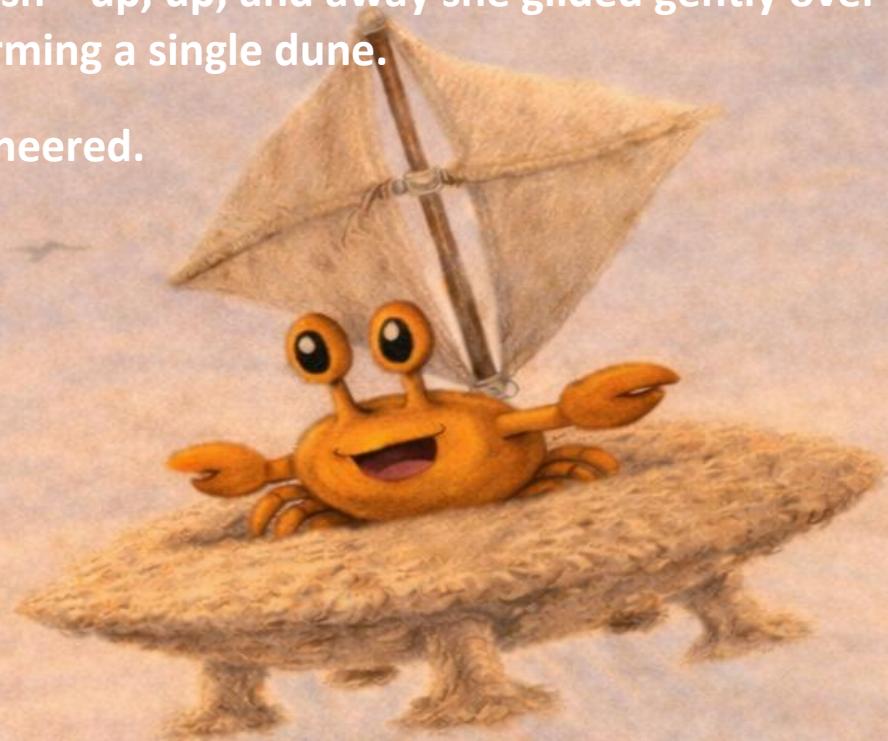
Outer Banks Science Fair

At last, the day of the Science Fair arrived. Scientists, teachers, families, and environmentalists from around the world gathered on the beach to see the projects.



Sandy demonstrated her wind-powered dune saucer. The breeze picked up, and whoosh—up, up, and away she glided gently over the sand without harming a single dune.

“Wow!” the crowd cheered.



Next, George placed his Sky Vacuum under the bright sun. With a soft hum, the solar panels powered on, and everyone watched in amazement as smoky pollution drifted safely into the machine.



Finally, Sam launched Captain Cleanwave into the ocean. After just thirty minutes, the boat returned carrying piles of plastic and debris.

“Twelve tons of trash!” someone gasped.



At the end of the day, the judges gathered to announce the winner.

“And the winner is...” one judge said, smiling, “a three-way tie!”

The crowd erupted in applause.

“All three projects show creativity, teamwork, and a deep love for our planet,” the judges said. “Each invention reminds us that protecting the Earth takes many solutions—and many caring hearts.”



That evening, as the sun set over the Outer Banks, Sandy, George, and Sam smiled at one another.

**They knew they had learned the most important lesson of all:
When we work together and care for nature, we can protect our
world for generations to come.**



Did You Know?

Did you know that real inventions like the ones in this story can help protect our planet?

- Wind power, like Sandy's dune saucer, is a clean energy source. It makes electricity without creating pollution and helps protect fragile sand dunes where animals like ghost crabs live.
- Solar power, like George's Sky Vacuum, uses energy from the sun. Solar energy doesn't produce harmful gases that cause climate change.
- Electric cleanup boats, like Sam's Captain Cleanwave, are already helping collect trash from oceans and rivers, keeping sea turtles, fish, and seabirds safe from plastic.

When people use clean energy, reduce pollution, and work together—just like Sandy, George, and Sam—they help protect beaches, oceans, air, and wildlife for the future.

Even children can make a difference by caring for nature, sharing ideas, and helping their community!