



There is a rapture on the lonely shore, There is society where none intrudes By the deep sea, and music in its roar: I love not man the less, but nature more

-Lord Byron

The Marshall Islands

A Pacific Island Nation fighting to keep afloat in the midst of an escalating climate crisis

The Republic of the Marshall Islands (RMI) is an independent Micronesian nation in the Pacific Ocean just north of New Zealand. The country is a collection of 29 atolls which make up over 1000 islands. An atoll is a ring shaped coral reef that encircles a lagoon, often sitting atop an extinct volcano.



The flag of the Republic of Marshall Islands



The Marshall Islands has a population of 50,000 people with 27,000 of these residing in the capital of Majuro.

It has been said that the Marshall Islands are so remote that they make you feel like a well equipped cast away, where every thing you have and eat need to be imported. Life moves very slowly in the blistering heat on the islands.

CNN climate change reporter John D Sutter described the islands this way - "In Majuro, they live in a small cluster of homes along the coast, three pandanus trees planted out back because their roots run deep and supposedly hold down the soil. When the leaves rattle in the ocean breeze they sound like rain. Sunsets electrify the clouds, all pink and orange, and a full moon makes the water shimmer at night. Smiley ukulele music is almost always within earshot."

The country produces coconuts, taro and breadfruit, and sells fishing licenses for the international trawlers that scour Marshallese waters for tuna.

As in other island cultures, they utilize and depend on their natural resources, skillfully turning raw materials into usable products by hand. Canoes are built from pandanus trees.



Coconut fibers are intricately woven into mats, bags, baskets, clothing, jewelry, fans, bowls, and decorations with no two pieces being alike. The plentiful shells are used to embellish their woven crafts.



A History of Navigators

Throughout their history, the navigational prowess of the Marshallese has been legendary. For thousands of years they have embraced and survived in a water environment scattered across 750,000 square miles of ocean. "By lying on his back in the bilge of his canoe and sensing the motion of the canoe, the skilled pilot can 'fix' his position at night even without looking at the sea, for the movement of the canoe alone will tell him what kinds of swells are acting on it," wrote one anthropologist of Marshall Islands Cartography.



The islands are flat and very narrow. At some points, only about 12 yards separate one coast from the other. On land where the elevation is an average of 6 feet above sea level, no one is more threatened by climate change than the Marshallese. Their way of life and very existence is already being shaken by global rising temperatures and sea levels, and will soon disappear without aggressive protective measures.



"We are not a small island country. We are a big ocean country -- with a conscience that we'd like to share." "We are not a small island country. We are a big ocean country -- with a conscience that we'd like to share," said Tony de Brum, the previous RMI foreign minister.

"When the next uprising from the sea comes and washes away all the crops and stuff from people's houses, then what?" said Lani Kramer. "We are going to go under. The water is going to keep coming up and we're going to have nowhere else to go. We're going to have no place."

The King of Tides

In writing this, we seek to bring awareness and inspire others to live in greater harmony with our planet and to live life everyday as a global citizen, rather than just a resident of where we are on the map.

In 2015, leaders from countries all over the world met at the Paris Climate Conference to discuss such a plan.

When Marshallese climate ambassador Tony de Brum was asked at the conference, "Are you here to save your country?" his response was "No, we're actually here to save the world." Because if we save the Marshall Islands — the lowest lying, most vulnerable islands — we save the rest of us.



Five meter ocean swells have begun to regularly inundate the islands, an occurrence which previously only happened once a decade. the more this occurs, the more their fresh water resources become salinize and unusable. The US Geological Survey recently issued a prediction that the increasing frequency of these swells, known as king tides, will likely force inhabitants to abandon their islands within decades instead of centuries as previously thought. Changing global trade winds have raised the water in the South Pacific about a foot in the last 30 years, which is faster than anywhere else.

"I think it's very clear that if you're a Marshallese, you would want to make sure that the culture and the place and the identity doesn't disappear," Marshall Islands President Hilda Heine said.



Climate change's impact on the oceans affects the agriculture, infrastructure and even the psychology of the people.

Their history, culture and the ocean itself makes the Marshallese who they are. The idea that "their



grandchildren will not grow old on the island" has a deep emotional impact on them. They don't want their entire culture to be wiped away and forgotten. So for now, they stay and fight.

"I think this place is going to be gone. I feel like I'm going to be one of the last people to leave. If the roads get so bad that you can't drive any more, and the people's houses keep getting washed away, I just think people will start leaving en masse." — Jack Niedenthal, former Peace Corps member in RMI

"Are you here to save your country?" his response was "No, we're actually here to save the world." "The sound of the ocean, it (used to put) me to sleep. It's like my lullaby," said Angie Hepsius. "Now, it's more like slamming and hammering. It's so noisy. It scares me at night. ... It's changed. The melody of it has changed. It's not the same song I used to love."



Angie Hepsius is not able to let her guard down, unable Daily the people of the Marshalls wade out into the ocean, to reclaim the concrete blocks that form the sea wall in front of their homes.

"It's insane, I know, but it's the only option we've got. I feel like we're living underwater. I'm the oldest, I can't leave my parents, but I don't want my kids to suffer here." —Linber Anej

1.5 to Stay Alive

The Union of Concerned Scientists gauge that we have 10 years to act to avoid the most sever consequences of climate change.

1.5 to Stay Alive is the rise in the global temperature that can't be exceeded and the mantra of survival in Oceania. The International Cryosphere Climate Initiative reported that an average temperature rise of 1.6 degrees C could trigger "irreversible" melt of the Greenland ice sheet.

"We make a minuscule contribution to the climate greenhouse effect, but we are at <u>the frontline of the</u> <u>problems</u>," said Speaker of the Marshallese Parliment, Kenneth Kedi.

Without a big powerful government to turn to for aid, the Marshallese are working to highlight climate issues on an international stage.



If circumstances were reversed and we in the US or another high carbon emitting country were experiencing such catastrophic problems, there might be a much different approach.



Studies show that well before the seas permanently claim an area, that floods make the area unlivable. Most sea level rise studies just look at what the level of high tide will be in the future compared to current land elevations but they do not account for rising waves and king tides which amplify sea levels. King tides are already becoming a part of life in Florida, California, Hawaii and other coastal states.

"Life is getting hard, and I believe that all of these [changes] come from the same thing, from climate change." —Marlyna Laibwij



We can not rely on our governments to lead the way in reducing environmental dangers and global temperatures. Too many leaders are simply not concerned. At the 2015 United Nations Climate Conference, when presented with the pleas of the Marshallese being swallowed by the ocean, Environmental Minister of India listened and then replied, "So what?"

On Earth Day 2016, 174 countries signed a global agreement on the reduction of climate change, as discussed in the 2015 conference. The next year, United States President Trump ended US participation in the agreement, stating that climate change is a hoax. Meanwhile, our country is <u>ranked</u> as the largest polluter of carbon dioxide. The Amazon produces a fifth of the oxygen produced by our plants and trees, and it is burning out of control. The Brazilian President does not care and does not want help in controlling the blazes.

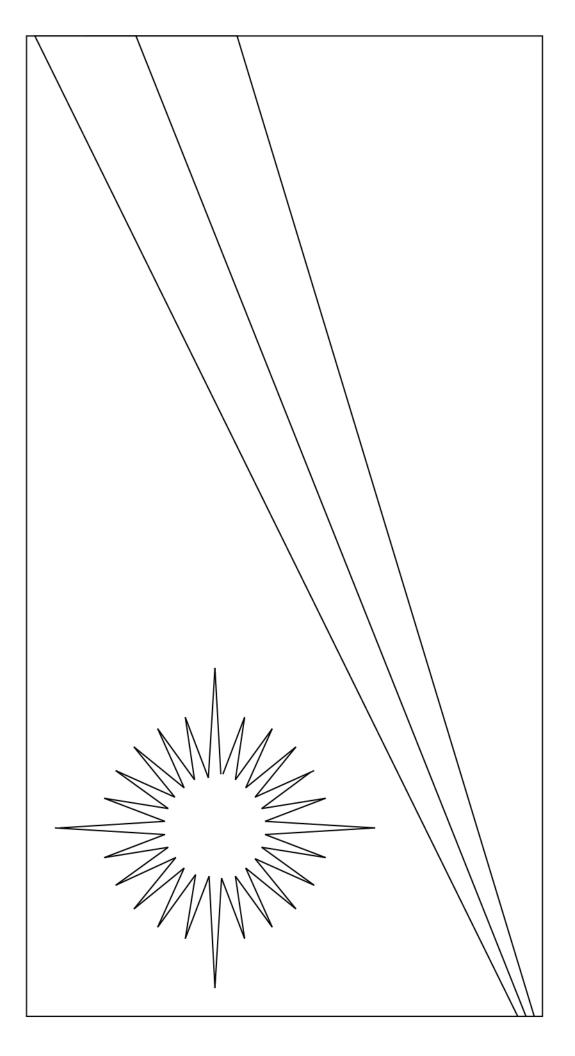
This is why it is the responsibility of everyone of us to care for our planet and lead others by example. If we all learn about how our daily actions can help or hurt our natural resources, we can make big changes little by little.

When you live in a country where you wake up in the middle of the night to find that your home has become an aquarium and your bed is floating, you don't have the luxury of denying the existence of climate change. They are living it.

"The Marshall Islands will continue to champion mitigation and decarbonization efforts globally, but it must now pay much greater attention to adaption and building resilience, both on the global stage and here at home," Chief Secretary Graham told Radio New Zealand.

Working closely with other low lying island nations such as Kiribati, Tuvalu and the Maldives, they are seeking alliances with global groups.

"We are the only nations in the world who now face real prospects of being completely wiped off the map," said Secretary Graham, "so we need accelerated support."





Flag of the Marshall Islands

Adopted on May 1, 1979. Designed by Emlain Kabua.

four large rays and 20 small rays appears on the hoist side above the two stripes. The rising diagonal band represents the equator, the star above representing this Northern Hemisphere archipelago. The white and orange portions of A blue field with two stripes radiating from the lower hoist-side corner - orange (top) and white; a white star with the band represent, respectively, the Ratak Chain ("sunrise") and the Ralik Chain ("sunset"), as well as symbolizing peace and courage. The star's 24 points represent the number of electoral districts, while the four elongated points represent the principal cultural centers of Majuro, Jaluit, Wotje and Ebeye.



We Are Oceania is an anthem of unity inspired by the strength of Pacific Island ancestors, the hopes of the elders, and the dreams of their youth.

We Are Oceania

We are one people, many cultures

We are one ocean, many islands

We wish no other home than ours.

Our differences enrich us,

Our islands sustain us,

Our ocean binds us together.

Having displaced no one, we welcome you,

Having been divided, we seek unity,

Having been ruled, we seek freedom.

Together, we renew,

Our hearts with love,

Together, we renew,

Our minds and souls,

To be ourselves, ¹⁴



A Few Marshallese Words

Iakwe - "Hello," "I love you," and "You are a rainbow."

Baamje - Family

Aenomman - Peace

 Vour carbon

 Your carbon

 footnrint is the

four carbon footprint is the amount of carbon dioxide released into the air because of your own energy needs. You need transportation, electricity, food, clothing, and other goods. Your choices can make a difference.

Reducing and Offsetting Your Carbon Footprint

Take ownership of your personal contribution to climate change

Reduce Air Travel

A single return flight from London to New York – including the complicated effects on the high atmosphere – contributes to almost a quarter of the average person's annual emissions.



Kids Can Help!

Eat Less Meat

Cows and sheep emit large quantities of methane, a powerful global warming gas. A vegan diet might make as much as a 20% difference to your overall carbon impact but simply cutting out beef will deliver a significant benefit on its own. It's especially bad if you buy beef from somewhere like Brazil, where it was grazed on land that used to be tropical forest but was cleared for agricultural use. Deforestation is a top contributor to carbon emissions and thus climate change.

Buy Less Stuff, Especially Plastic

Simply buying less stuff is a good route to lower emissions. A suit made of wool may have a carbon impact equivalent to your home's electricity use for a month. A single T-shirt may have caused emissions equal to two or three days' typical power consumption. 80% of the carbon footprint of a new laptop comes from manufacturing and distribution. Whenever possible, buy quality items that will last and take care of them.



Kids Can Help!

Grow Your Own Food

Home grown food is fresher, tastes better and is more nutritious. You can help by growing your own vegetables and fruits. You can help by planting a tree. Your new plants and trees will help to remove the greenhouse gas CO₂ from the air. If you grow some of your own food, you will also help to prevent more CO₂ from entering the air from the fossil-fuelburning trucks, planes, and ships that transport your food to you from far away.

If you aren't able to have a garden, eat locally produced and organic food. It has been estimated that 13% of U.S. greenhouse gas emissions result from the production and transport of food. Many chemicals used to grow food are also fossil fuelbased, so this is another great reason to buy organic.

Choose fresh, loose fruits and vegetables

The packaging used to wrap fruits, vegetables, and premade meals is often plastic, and plastic requires fossil fuels. It might take some getting used to, but it's possible to leave the grocery store without any excess packaging. Remember, cooking can be time consuming, so offer to help your parents with preparation of meals that use fresh ingredients. This will save them time, help teach you to cook, and encourage your parents to buy fresh more often.

Do Not Buy Products Using Palm Oil Harvested from Rain Forests

Palm oil is being used everywhere – in our foods, cosmetics, cleaning products and fuels. It's a source of huge profits for multinational corporations, while at the same time <u>destroying rainforests and pushing</u> <u>animals to extinction</u>. Displacement of indigenous peoples, deforestation and loss of biodiversity are all consequences of our palm oil consumption. We need the rainforests to sequester carbon.

Solar Energy

Add solar panels to the roof of your home. This costs a little more than the above options, but many providers offer financing options which minimize upfront costs. Two examples are <u>SolarCity</u> and <u>SunRun</u>.

Support Companies Using Sustainable Resources

Buy from companies that support the switch to a low-carbon future.

Demand others to follow with your dollars.

Money managers are increasingly wary of backing the investment plans of oil companies and switching to renewable projects. And universities and activist investors around the world are selling their holdings in fossil fuels, making it more difficult for these companies to raise new money. Vocal support for those <u>backing out of oil, gas and coal</u> helps keep up the pressure.

Drive Less

Walk or Bike When You Can. Even a 2-mile car trip puts 2 pounds of CO₂ into the atmosphere!

Consider buying an electric vehicle when you replace your old car

Driving Style

Speeding and unnecessary acceleration <u>reduce</u> <u>mileage by up to 33%</u>, waste gas and money, and increase your carbon footprint.

Tire Inflation and Other Tuning

Properly inflated tires improve your gas mileage by up to 3%. It also helps to use the correct grade of motor oil, and to keep your engine tuned, because <u>some maintenance fixes</u>, like fixing faulty oxygen sensors, can increase fuel efficiency by up to 40%.

Avoid traffic

Being stuck in traffic wastes gas and unneccessarily creates CO₂. Use traffic websites and apps and go a different way or wait.



Kids Can Help!

Lighting

Turn off lights you're not using and when you leave the room. Replace incandescent light bulbs with LED ones.

Insulate and seal your home

Reduce drafts and air leaks with caulk, insulation, and weather stripping.



Kids Can Help!

Water Usage

Lower the amount of energy used to pump, treat, and heat water by washing your car less often, using <u>climate-appropriate plants</u> in your garden, installing drip irrigation so that plants receive only what they need, and making water-efficient choices when purchasing shower heads, faucet heads, toilets, dishwashers and washing machines.



Kids Can Help!



Kids Can Help!

Reuse and recycle

It has been estimated that <u>29% of U.S. greenhouse</u> <u>gas emissions</u> result from the "provision of goods," which means the extraction of resources, manufacturing, transport, and final disposal of "goods" which include consumer products and packaging, building components, and passenger vehicles, but excluding food. By buying used products and reselling or recyling items you no longer use, you dramatically reduce your carbon footprint from the "provision of goods."

Engage in activities that don't require electricity.

The majority of the electricity generated in the United States comes from fossil fuels, so by using less energy, you can reduce your carbon footprint. Instead of watching TV, playing on the computer, or playing video games, try:

- Reading.
- Playing outside.
- Playing board games.
- Spending time with friends in person.



Kids Can Help!

Compost

The amount of energy and fuel it takes to transport organic matter to a waste facility will contribute to your carbon footprint. On top of that, organic matter doesn't properly break down in that sort of environment, so you are much better off composting yourself. Not only will you reduce the amount of waste you send to landfills, but you'll also have homemade soil to plant and fertilize your garden.



Kids Can Help!

Don't buy bottled water

Bottled water takes three liters of water to produce one liter of bottled water, and millions of barrels of oil are needed to manufacture the bottles, caps, and packaging required to meet the demands of American consumers alone.

Help out when it's time to pack snacks. Fill up the water bottles and remind your parents to use their reusable mugs when they grab coffee to go.

Avoid products that use excessive packaging

The majority of packaging used in North America has more to do with advertising than it does product preservation or consumer safety. Because most of that packaging is plastic, fossil fuels have been used to create it, and lots of it cannot be recycled. By refusing to buy products that have excessive packaging, you will reduce your carbon footprint and tell businesses that their methods are not acceptable.

Offset Your Carbon Foot Print

<u>Plant trees!</u>

There's as much carbon captured and stored in all the trees of the Amazon as the amount the entire planet has emitted over the past 10 years. Floridians have a very special opportunity because our state wants to help us grow beneficial plants and be covered in forest, not grass and annuals. Even those without green thumbs can succeed with many Florida native trees.

Donate to SeaTrees

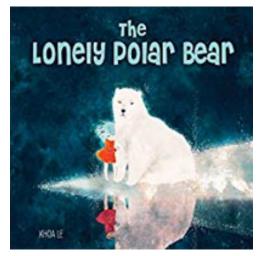
Have <u>SeaTrees</u> do the planting for you. They will plant mangroves to fight carbon emissions with a small donation. Mangroves are 5x more efficient at neutralizing carbon pollution than forests are. Each mangrove tree can store up to one ton of CO2. They also help to stabilize the coastline and prevent erosion from waves, storms, and tsunamis.

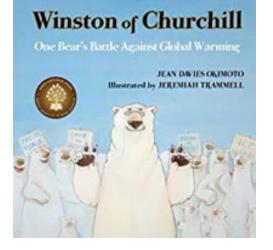
Learn, Inspire, Create Solutions!

A Conservation Booklist for Young Learners



The Last Wild, by Piers Torday (Puffin Books 2014/2015, 352 pages, \$8.99) *In a world where animals are slowly fading into extinction, 12-year-old Kester Jaynes feels as if he hardly exists either. He's been locked away in a home for troubled children and is unable to speak a word. Then one night, a flock of talking pigeons and a bossy cockroach come to help him escape, and he discovers that he can speak* — to them. And the animals *need him. Only Kester, with the aid of a stubborn, curious girl named Polly, can help them survive. The animals saved Kester. But can he save them?*



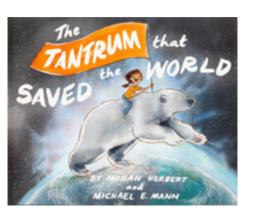


The Lonely Polar Bear, by Khoa Le (Fox Chapel Publishing 2018, 40 pages, \$14.99)

This sweet children's picture book presents a moving story, set in a fragile Arctic world threatened by global warming. A little polar bear wakes up alone after a furious storm. With his mother nowhere in sight, he makes friends with a mysterious little girl and various animal companions. All of the friends come together in the magnificent polar sky. In the end the little bear sits peacefully, enjoying a winter day lit up by beautiful northern lights. Featuring exceptional illustrations from talented Vietnamese illustrator Khoa Le, The Lonely Polar Bear offers an accessible way to introduce children to climate change issues.

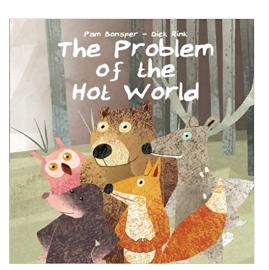
Winston of Churchill: One Bear's Battle Against Global Warming, by Jean Davies Okimoto, Illustrated by Jeremiah Trammel (Endicott and Hugh Books 2013, 34 pages, \$9.95 paperback)

Churchill, Manitoba, is the polar bear capital of the world. Every winter, tourists flock to the tiny town to watch the bears hunt and frolic on the frozen waters of the Hudson Bay. This year, though, the tourists are in for a big surprise ... Winston! A smart, fierce, brave bear, Winston of Churchill has noticed that his icy home is slowly melting away. He explains to the other bears why the ice is *melting then, using the stirring words of* his famous namesake, rallies the bears to convince humans to save their Arctic home. But in the process, Winston learns an unexpected lesson and realizes that he, too, must change his ways. This timely, funny story helps children understand that in the face of global warming, everyone must do their part, no matter how small.



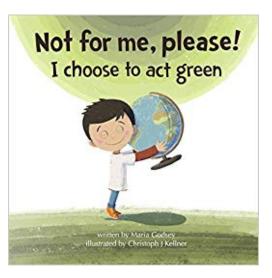
The Tantrum that Saved the World by Megan Herbert and Michael E. Mann

This remarkable new picture book by Australian writer and illustrator Megan Herbert and award-winning American climate scientist Michael E. Mann has two parts. The first is a story about a little girl who inherits a huge problem she didn't ask for, feels all kinds of frustration as she tries to solve it, and then channels those strong emotions into positive action. The second part explains the science of climate change in language children can understand, telling the stories of the climate refugees who appear in the story and showing how all their lives are interconnected. An action plan then outlines simple and positive actions every person can take to make a real difference and to become the heroes of their own stories.



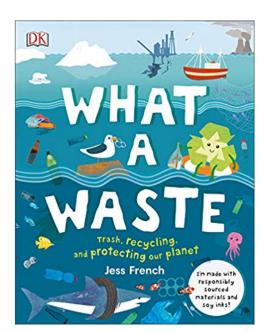
The Problem of the Hot World by Pam Bonsper

Five forest friends notice they are in trouble. Their world is too hot. Plants and bees are disappearing and their beautiful trees are dying. Bear, fox, deer, mole, and owl set off on an action-packed adventure as they look for a solution to the problem. While the solution they find helps them, *is it the best way to deal with climate change? Use this book to start the discussion and help children understand the impacts of global warming.*



Not for me, please!: I choose to act green by Maria Godsey

Join Luke on his journey to protect what he loves with this engaging children's picture book about sustainability and acting green. After noticing the damage caused to the environment and animals due to trash and waste, Luke decides to take action. He believes he can have a big impact on the world around him and invites his readers to join him!

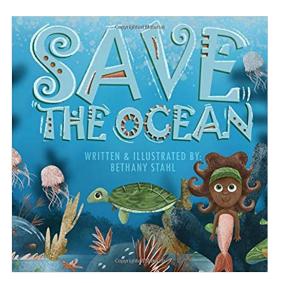


What a Waste: Trash, Recycling, and Protecting our Planet by Jess French

Everything you need to know about what we're doing to our environment, good and

bad, from pollution and litter to renewable energy and plastic recycling.

This environmental book will teach young ecologists about how our actions affect planet Earth. Discover shocking facts about the waste we produce and where it goes. Did you know that every single plastic toothbrush ever made still exists? Or that there's a floating mass of garbage twice the size of Texas drifting around the Pacific Ocean?



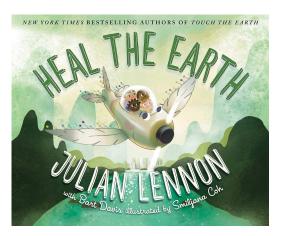
Save the Ocean By Bethany Stahl

#1 Best-Selling journey with a mermaid & sea turtle to discover the importance of recycling!

Brought to you from the author who received a Certificate of Recognition from Dr. Jane Goodall! From exciting and adventurous to educational and captivating, Bethany Stahl's immersive stories express heartfelt messages while engaging parents and children.

With beautiful and charming illustrations, as well as a lovable sea turtle named Agwe, this is a book adults will love reading over and over again with their kids. Save the Ocean has a heartwarming lesson of **recycling and conservation** that will stay with the reader for a lifetime.

Book Extras! Discover hidden elements in a Search and Find game! Color a page of bonus sketches from renowned illustrator Bethany Stahl! Learn astonishing ocean facts! Read an exclusive page the real-life adventures of the author and her efforts to **Save the Ocean**! Help Kaleisha, the mermaid, see the differences between plastic bags and jellyfish! You won't want to miss inspiring your precious little one with this brilliant ocean tale!



Heal the Earth by Julian Lennon

From New York Times bestselling author, Grammy-nominated singer/songwriter, philanthropist, photographer come a fullcolor children's book that will spark the imagination and teach about the environment.

Jump aboard the White Feather Flier, a magical plane that can go wherever you want. This time, Lennon's full-color interactive book immerses children in a fun and unique journey where they can:

- Bring medicine to people in need!
- Dive below the ocean to bleached coral reefs!
- Visit the city to cultivate green spaces!

- *Help the rain forest return and give its animals a home!*
- Explore the planet, meet new people, and help make the world a better place!

The Flier's mission is to transport boy and girls around the world, to engage them in helping to save the environment, and to teach one and all to love our planet. Just press a button printed on the page and point the plane up in the air to fly, or down to land it!

An inspiring, lyrical story rooted in Lennon's life and work; **Heal the Earth** is filled with beautiful illustrations that bring the faraway world closer to young children. The book includes words to a new, special poem written by Julian Lennon, specifically for **Heal the Earth**.

This bestselling series include three extraordinary books: **Touch the Earth**, **Heal the Earth**, and **Love the Earth**. A portion of the proceeds from book sales will go to support the environmental and humanitarian efforts of the White Feather Foundation, the global environmental and humanitarian organization that Lennon founded to promote education, health, conservation, and the protection of indigenous culture.