Aloha Teachers

Mahalo for sharing **Hawai'i Storm Patrol: New Recruits** with your students. This fun and interactive book is designed to be flexible to suit your teaching needs.

You can give the book to your students as a handout to work on by themselves, either at home or as a self-guided activity they can do in between other classroom lessons.

You can also guide your student through the book. Provided are some questions to help lead a discussion about storm water pollution in Hawai'i.

Accompanying each book is a Hawai'i Storm Patrol badge. After your students complete the book, hand these badges out to your kids as a reward. When they put on their badges, reiterate the importance of keeping our storm drains and our ocean clean. And remember the Hawai'i Storm Patrol pledge:



Mālama I Ka Wai. Protect our Water.

Introduction to Students

This book tells a very important story. It's about four kids just like you who meet a magical fish. The fish asks them to join a special group – the Hawai'i Storm Patrol! And if you read and complete the book, you'll have a chance to join the Hawai'i Storm Patrol, too. All you have to do is work your way through each activity and remember these three lessons:

- A storm drain is an opening along our roads and highways where rainwater enters and flows directly to our ocean and streams
- Get garbage and recycling off the streets to keep our ocean and storm drains clean
- · Polluted water can harm coral reefs, sea life and even humans

If you complete the book, you'll each earn an official Hawai'i Storm Patrol badge. If students would like to learn more with the Hawai'i Storm Patrol, visit StormWaterHawaii.com.



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VOCABULARY: Storm, Storm Drain, Pollution, Mālama, Recycle

Class Discussion Questions:

If you're reading the book and completing the activities in class, here are a few questions to lead a discussion about storm water pollution.

1. Words to say and learn. After reading the introduction, ask:

- Who can say humuhumunukunukuāpua'a? How about three times fast? The humuhumunukunukuāpua'a is Hawaii's state fish.
- Who knows what pollution is? After a really big rainstorm, what color does our ocean turn? Do you think brown water is good or bad? Do you think the fish like it? Do you swim in brown water?

2. Where does ocean pollution come from? After reading page 2, ask:

• Have you ever been in the water and seen trash? What kind? How do you think it got there? How does it make you feel? Is it good or bad for the animals that live in the ocean?

3. A talking fish? After reading page 3, ask:

- Does anyone know what malama means? Malama is a Hawaiian word that means, "to take care of." What do you think he wants us to take care of?
- How can you earn a Storm Patrol badge? Earn your badge by completing a few challenges.



Class Discussion Questions:

Maze Activity. After reading page 5, ask:

- Has anyone ever seen a storm drain? Where do you find them? What are they for? Storm drains are only for storm water – not for trash, not even lawn clippings or food scraps.
- When students finish the maze, ask: So where do our storm drains lead? Directly to the ocean. So if we put trash in a storm drain, where does the trash end up?

Sticker Activity. After reading page 7, ask:

- What is G.O.O.P.? What might happen if we don't clean it up?
- When students finish the stickers, ask: Where do you think we should put garbage so it's not out of place?

Matching Activity. After reading page 8, ask:

- · What are recyclables? Why are they separate from other types of trash?
- Answer Key:
 Grey: Milk carton, sock. Green: Leaf, tree trunk.
 - Blue: Newspaper, jar, box, bottle, soda can, tuna can.
- Advanced activity: Classroom Compost. See the next page for instructions.

Wrapping Up. After reading page 11, ask:

- · So how do we keep Malama's home clean and beautiful?
- Welcome new recruits! After reading the last page, say:
- Congratulations! You've all earned your badges. You're now members of the Hawai'i Storm Patrol. What do members of the Storm Patrol do? Protect our waters and Mālama our ocean.



Advanced Activity: Classroom Compost

Who knows what fertilizer is?

Fertilizer is plant food. It helps our plants grow – or be fertile. But when it ends up in the ocean, it can harm sea life. So it's important for the Hawai'i Storm Patrol to keep fertilizer out of storm drains. One of the best ways to do that is to create a compost bin.

Does anybody know what compost is?

Compost is plant matter, such as the grass trimmings after you cut the lawn, fallen leaves and branches, or food scraps, like a banana peel. Composting combines water protection with recycling and conservation.

What happens when you leave an old banana peel out?

It turns brown and then black. That's called decaying. As time passes, all plant matter breaks down, or decays, and creates rich nutrients for soil that's perfect for fertilizer. A lot of plant matter ends up in our storm drains and ocean, where they can cause harm to sea life. But if we use a compost bin to recycle plants, we keep them out of our storm drains and ocean and turn them into natural food for plants.

Today we're going to start our own compost bin. If you want, you can try this at home with your parents.

MATERIALS

- · Pitchfork or Shovel
- Twigs or Branches
- Compost Bin You can buy a compost bin or build one yourself using four wood pallets, which shipping or hardware companies may offer for free.
 Stand them up on one side to form a square. Lash or nail the palettes together and put a tarp or other cover on top.



Classroom Compost!

1. Get a compost bin

A compost bin holds the composting materials in one place. As the compost breaks down, it generates heat, which speeds up the process. Compost also needs air to break down, so the sides of the bin don't have to be solid.

2. Fill the bin with organic waste

First, fill the bin. To start, put in old branches. Crisscross them so that there's room for air to flow as the compost piles up. Then, whenever you have something to compost, you can bring it out to the compost bin and add it to your pile.

3. Stir every other week

Once in a while, turn the compost to give it more air with a shovel or a pitchfork. Stirring speeds up the composting process.

4. Add water

Periodically add water to keep your compost moist.

5. Let it sit for 4-6 weeks

You'll know the compost is ready to use when the pile has shrunk to one-half its original volume, and the plant life that was put in isn't recognizable. You'll have a rich, natural fertilizer for gardens, potted plants, trees or shrubs. It can be used for top dressing or mulch at its earliest. For growing plants in containers it must be thoroughly composted – dark and crumbly.

Using compost to grow more plants is Storm Patrol-approved. Plants soak up water, unlike concrete or pavement — which lets water pour into our storm drains. More plants and less pavement helps keep storm water waste from going into storm drains and into our ocean.

