STORY 1: Trashbot

MaryAnn had finished reading her new comic book, "Earthlings," and tossed it into the trash can as she walked by. Just as the booklet hit the trash, she heard, "Get that out of here!"

MaryAnn turned around, surprised. "Who said that?" she asked.

"I did," said the trash can, which all of a sudden looked less like a trash can and more like a robot or something—a Trashbot. "Throwing away that perfectly good comic book is not good for the environment."

"What do you mean?" said MaryAnn. "It's just one little comic book."

"One little comic book!" the Trashbot shouted back. "Why the waste that comes from producing that one comic book could fill this entire kitchen!"

"Yeah, right," MaryAnn muttered as she turned to walk away. But she was stopped short as the one-time trash can turned into various machines, factories, and vehicles and began spewing out leaves and branches, boxes and bags, cans and bottles. Then, out the bottom of this contraption flowed a little river of dirty water.

"Whoa!" said MaryAnn, stepping around and pushing aside all the waste now filling the kitchen. "You mean all this waste comes from making one comic book?"

"This and more," answered the little Trashbot. "From producing the paper from a tree, to printing the words and pictures, to delivering the comic book to the store, to your bringing it home in this plastic bag," it said, coughing up a bag that came from the local market, "all kinds of wastes are created."


TRIP

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"Gosh, I had no idea," MaryAnn replied, looking around her kitchen. "There's a lot of stuff here."

"More than most people realize," the Trashbot continued. "And people don't think of all the natural resources that are not only in the comic book but also in all this waste that is left over. Trees, minerals, fossil fuels," it said, tossing up a product that came from each natural resource. "We use up a lot of natural resources for every product we make. Even if natural resources would never run out, we have to put this waste somewhere."

"You're right," said MaryAnn, trying to stuff some of the trash back into what used to be her trash can. "What do we do with all this waste?"

"Well," answered the know-it-all trash can, "we have developed systems to take care of most of our wastes. Without these systems, our environment would look a lot like your kitchen right now and would be unsafe and unhealthy."

"So, what do these systems do?" MaryAnn wanted to know, realizing that all the waste in her kitchen was certainly not going to fit back in her trash can.

"As you know," the Trashbot started, "paper, plastic, glass, cans, and other things we throw into our trash cans get picked up by trash trucks. Most of it gets taken out to landfills and buried."

"Oh," said MaryAnn, "I know about landfills. They are sort of like mountains of trash."

"That's right," Trashbot said, sort of nodding its head. "Or maybe mountains of natural resources."

"Hmmm, I see your point," said MaryAnn. "Now what do we do with all this dirty water?"

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"All the dirty water that goes down drains," Trashbot explained, sloshing through the kitchen, "goes through underground pipes to a wastewater treatment plant, where dirt and germs are removed. The water is returned to the ocean, or into the ground, or to rivers, where it can be used again."

"Sounds like we're doing a good job," MaryAnn said hurriedly. "So let's get all this stuff to the landfill and to the wastewater treatment plant before my mom comes home."

"Not so fast," Trashbot said as ink cans and bottles filled part way with bright colored liquids popped out of the top of it. "We do a pretty good job controlling most of the waste people create. But not all waste is so easily taken care of."

"What do you mean?" asked MaryAnn, jumping out of the way of the flying cans and bottles.

"Some inks and chemicals that we use," Trashbot told her, "are dangerous, like poison. If they leak into the soil or into rivers, lakes, or water under the ground, the land and water can become polluted—you know, unsafe or unhealthy for all living things."

"I never thought of that," MaryAnn said clearing a space on the kitchen floor and sitting down. "So what do we do with dangerous chemicals?"

"Good question," Trashbot said, now moving around the kitchen picking up all the ink cans and chemical bottles and putting them into one of the boxes. "They have to be disposed of in special places, not poured down drains or dumped on the ground."

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MaryAnn and Trashbot finished putting all the ink cans and chemical bottles in a box. Just when MaryAnn thought that her trash can was going to go back to being a trash can, it began spurting smoke and fumes into the air.

"What's all this?" MaryAnn frowned, waving the smoke out of her face.

"Air pollution," the trash-can-now-turned-smoke-stack answered. "A lot of waste is released into the air. When we burn fossil fuels—oil, coal, and natural gas—particles, gases, and smoke go into the air. And we burn fossil fuels for almost all the energy we need. It takes fossil fuels to run the saw that cuts down the tree, to create the heat to make the paper, to make the electricity that runs the printing presses, to power the trucks that transport the logs and the paper and the comic books, to power your car so you can get to the store to buy the comic book, and to make the plastic bag that you bring the comic book home in."

"So don't we have a system to take care of the pollution in the air?" coughed MaryAnn.

"We've found ways to cut down how much pollution goes into the air," the transformed trash can answered. "But not much can be done once it is released. So we must try to pollute the air as little as possible."

"Boy," said MaryAnn, shaking her head. "This pollution stuff doesn't sound good or look good."

"It isn't good," replied Trashbot. "All living things need clean air, water, and land to live. If our soil is polluted, or if we fill up our land with trash, where will people and animals live, and how will we grow plants to eat?

"If our water is polluted, what will we drink, and what will happen to plants and animals that need the water?

"And if our air is polluted, how will we breathe, and what will happen to plants and animals that need that air?"

"I'm sure I don't know," answered MaryAnn, pulling her comic book out of a once-again-trash-can. "But I do know that this pollution stuff is not good."