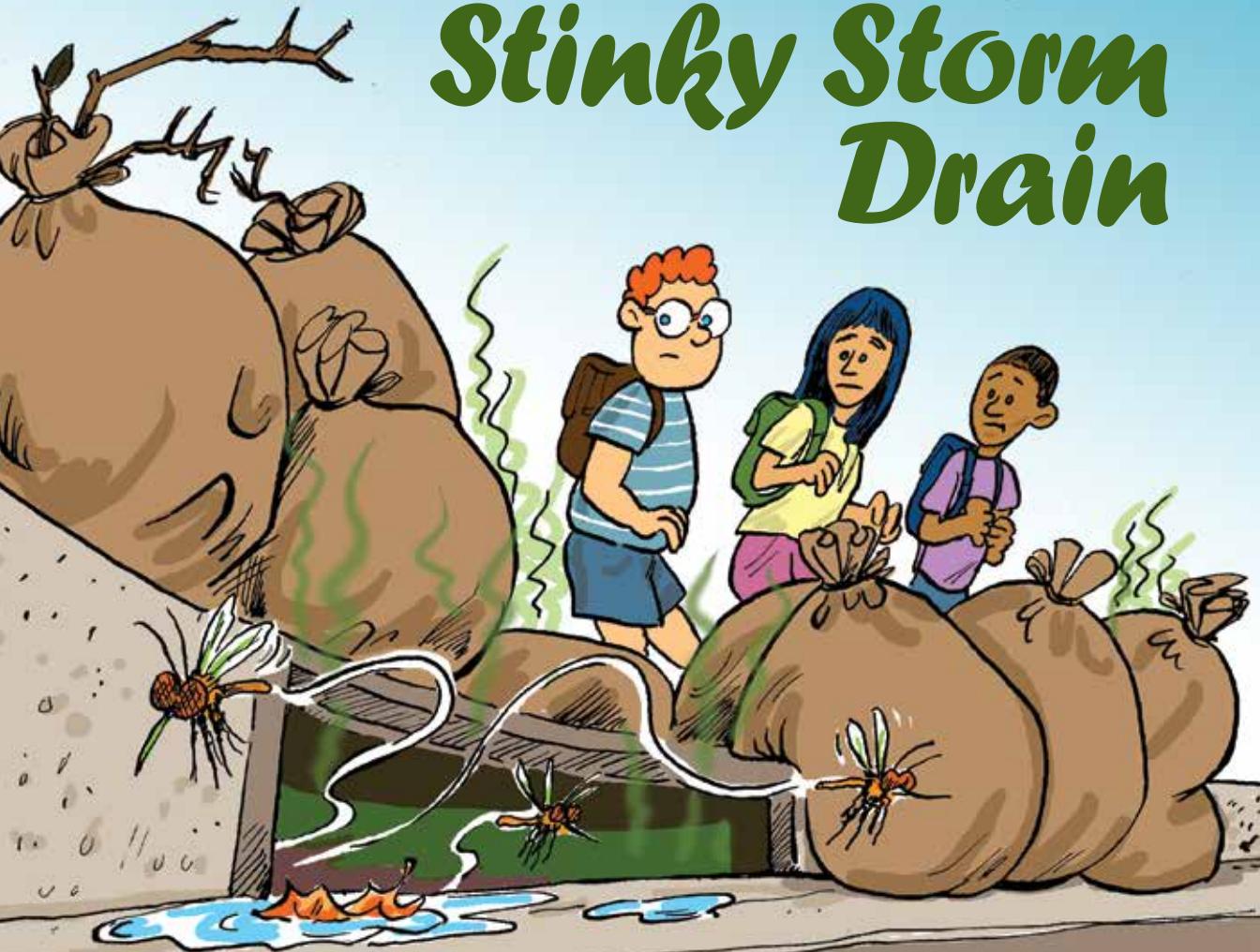


The Sinister Secret of the Stinky Storm Drain



Written and illustrated by Joe Sutliff
Developed by the Fairfax County Health Department



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The Disease Carrying Insects Program (DCIP) was established in 2003 to monitor and control mosquitoes and West Nile virus in Fairfax County. Since then, it has expanded to include ticks and tick-borne diseases. The mission of the program is four-fold: vector and disease surveillance, vector management and control, community education and outreach activities as well as emergency preparedness.

The program's goal is to minimize the impact of mosquito and tick-borne diseases with an integrated approach to pest management.

Disease Carrying Insects Program

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It was a sunny day at Bear Cub Elementary School. Maria was a fifth grade student at the school. Maria's teachers thought she was very smart. She liked to use what she learned at school to solve problems.

When the bell rang to signal that it was lunchtime, Maria quickly and carefully put away her books. As she walked to the lunchroom, she saw her teacher Mr. Owens. Maria liked Mr. Owens – he was always friendly and he had a way of explaining lessons that made it easy to understand. So she was a little worried when she saw that Mr. Owens was frowning as he sat on a chair in the hallway. “Aren’t you going to have lunch today?” Maria asked her teacher.

“Oh, I don’t feel too well right now, Maria,” said Mr. Owens. “Please don’t worry; I may just go home early. It feels like I’m catching the flu. Go ahead and have lunch.”



WATCH FOR
WEST NILE
VIRUS





Maria went inside the lunchroom. Her friends Noah and Ethan had saved a seat for her at their table.

“Hi guys – hey, did you see Mr. Owens? I think he’s going home for the day. He thinks he is getting the flu,” she told them.

Noah grinned at the news. “Hey, maybe that means we won’t have our math test today after all! I could use another day to study!”

“That’s not nice,” said Maria, “You should be hoping Mr. Owens feels better,



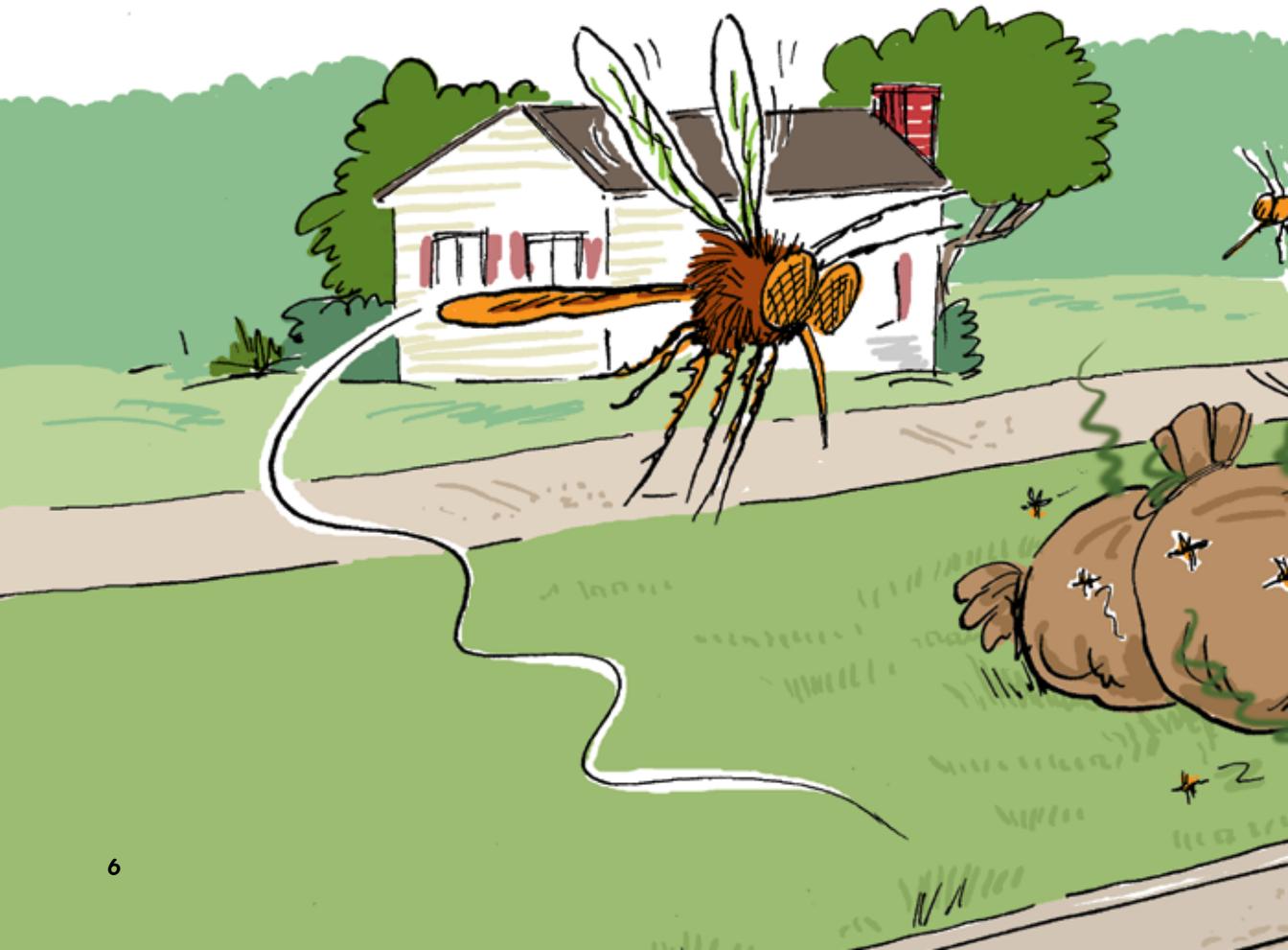
not worrying about a test.”

“Yeah, and besides, substitute teachers love to give tests!” added Ethan. They all knew that was true. Then Ethan became more serious. “Did you say he has the flu? This isn’t flu season.”

Maria shrugged her shoulders. Ethan was right; flu season was later in the year. Before she could add anything, the lunch room lady reminded them to finish their meal before the bell rang.

After school, the three friends walked home together. As they turned the corner to head down their street, Noah frowned and held his nose.

“Ewww, that smells awful!” he muttered. “Where is it coming from?” Maria and her friends looked around. “It’s coming from the direction of those bags,” said Ethan. The three friends tried not to breathe as they approached the pile of plastic bags on the curb. As they slowly got closer, they could see a cloud of flying bugs around the pile.



“Boy, look at all those bugs! I hope they aren’t mosquitoes!”
said Ethan.

“Ow! – I just got bit! Let’s get out of here!”

The trio hurried to their homes. After changing their
clothes and eating a healthy snack, they met each other
again to go to soccer practice.



When they arrived at the practice field, they found their teammate Laurel waiting, but she was not in her practice uniform.

“Sorry guys, but we can’t have practice today.” Laurel’s dad was their team coach. “My dad says he isn’t feeling well. He thinks he’s getting the flu.”



Maria, Noah and Ethan looked at each other with concern. “Don’t worry, I’m sure we’ll be back to playing soon,” said Laurel. “My dad will call you when he’s ready to have practice.”



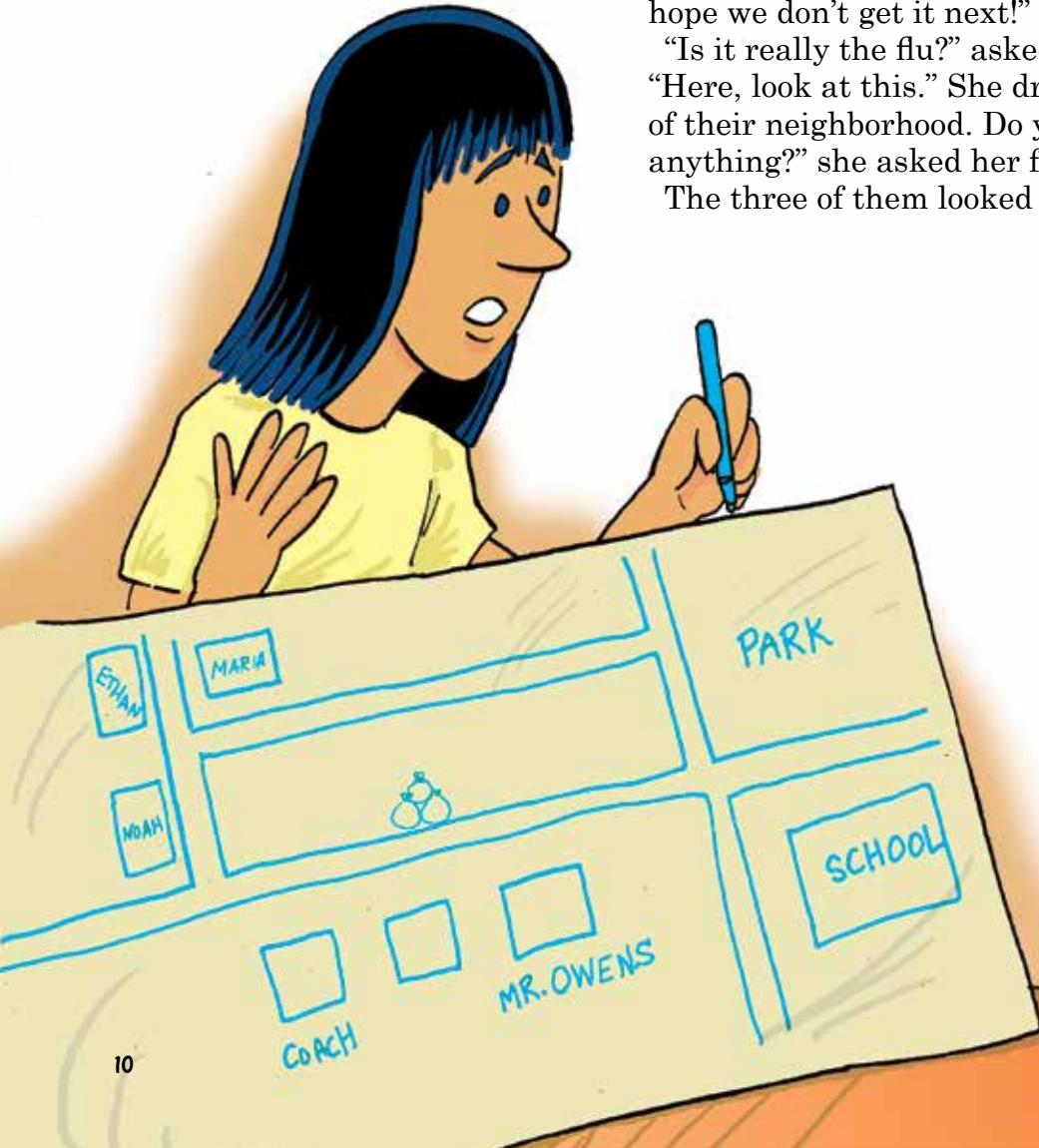
“Okay, Laurel – tell him we hope he feels better soon!” said Maria. The three friends returned to Maria’s home, sorry that they missed a chance to show their soccer skills.

“Hey, doesn’t Coach live near Mr. Owens?” Maria asked.

“That’s right!” said Noah. “Maybe he caught the flu bug from Mr. Owens. I hope we don’t get it next!”

“Is it really the flu?” asked Maria. “Here, look at this.” She drew a map of their neighborhood. Do you notice anything?” she asked her friends.

The three of them looked at the map.





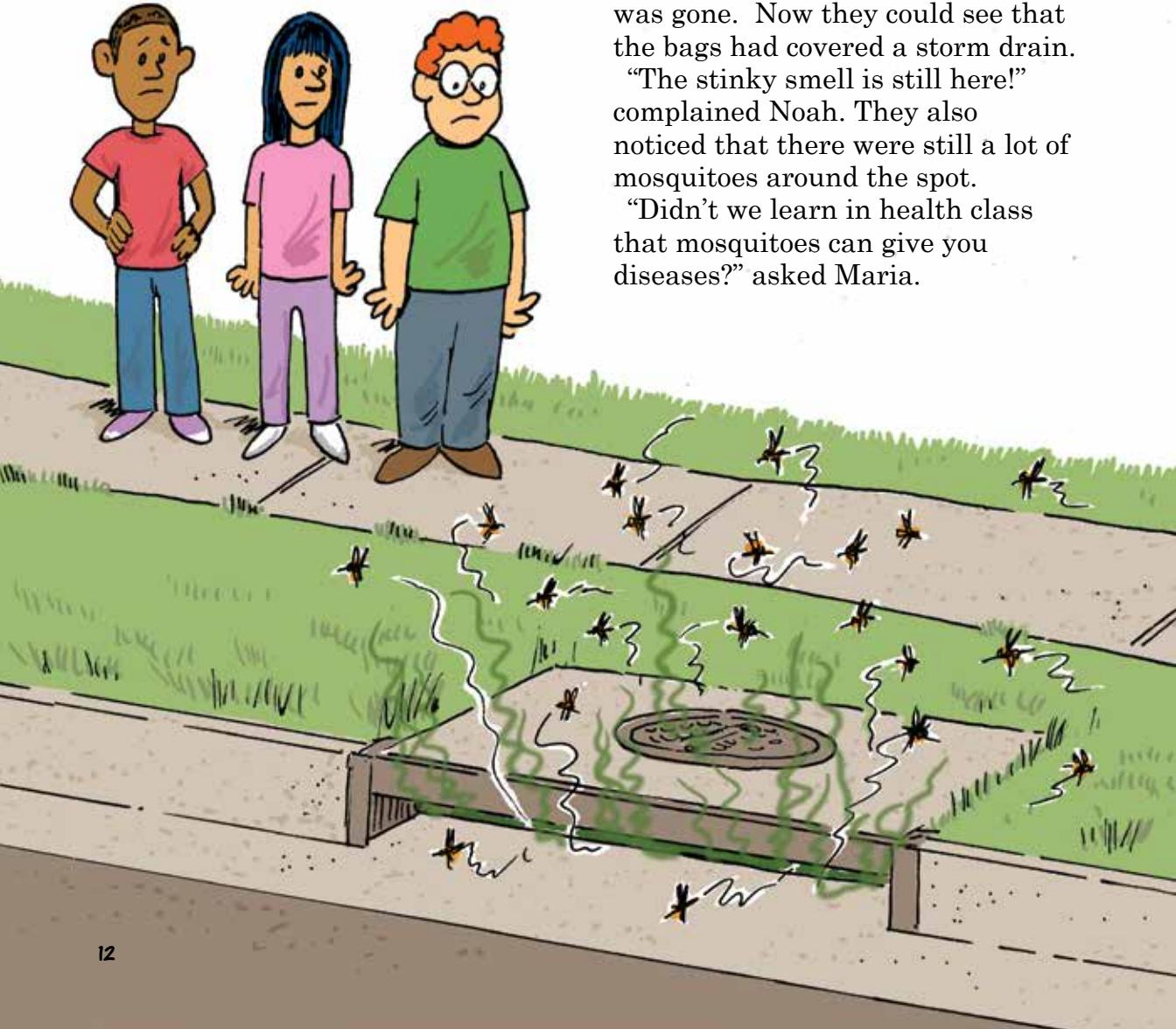
“Hey, the Coach and Mr. Owens live near that pile of smelly bags we saw,” said Ethan. “Could the bad smell be making them sick?”

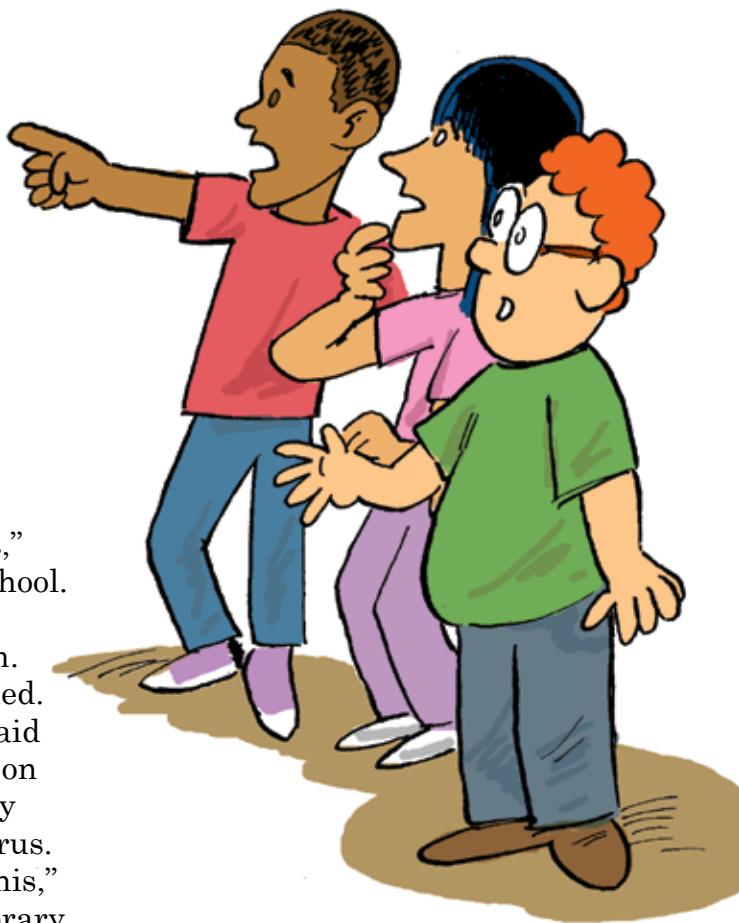
“Can you get the flu from a bad smell?” wondered Maria. “Let’s ask my mom and dad.” The three friends told Maria’s parents about their suspicion. Maria’s father was doubtful, but he assured them the bags would be taken to the dump as a part of that afternoon’s scheduled neighborhood clean-up.

The next day, the three friends were glad to see that the pile of bags was gone. Now they could see that the bags had covered a storm drain.

“The stinky smell is still here!” complained Noah. They also noticed that there were still a lot of mosquitoes around the spot.

“Didn’t we learn in health class that mosquitoes can give you diseases?” asked Maria.





“You’re right – I remember that,” said Noah as they entered the school. Suddenly he stopped and stared at the wall next to the lunchroom. “Look at that poster!” he exclaimed.

On the wall was a poster that said “Fight the Bite!” It warned to be on the lookout for diseases spread by mosquito bites, like West Nile virus.

“We need to learn more about this,” said Maria. “Let’s meet in the library after school.”

The others agreed. After school, they called to let their parents know that they were staying late to work on a project. They met in the library and used the computer to look for information on West Nile virus.





“Look!” said Maria, “It says that some people who have West Nile virus feel like they have the flu.”

“The virus is spread by mosquitoes,” Ethan read. “Birds can also catch the virus. If a mosquito bites a bird with the virus, and later that mosquito bites a person, then that person can get the virus.”

“Well, what are we supposed to do? Get rid of all the birds?” asked Noah.

“No,” said Maria, “but this says we can use repellents to keep mosquitoes from biting us.” She showed her friends a list of repellents that keep mosquitoes away. “We can also look for places where mosquitoes lay eggs. They lay their eggs in standing water, so if we get rid of the water, there will be fewer mosquitoes.”

“Standing water? What does that mean?” asked Ethan.

“It means water that builds up in puddles after it rains,” read Maria.



“Anywhere that water collects. Flower pots, bird baths, old tires, wading pools, storm drains...” Noah and Ethan looked at her. “Storm drains!” they all cried at once. “SHHHH!” said the librarian.

The three friends hurried from the library.



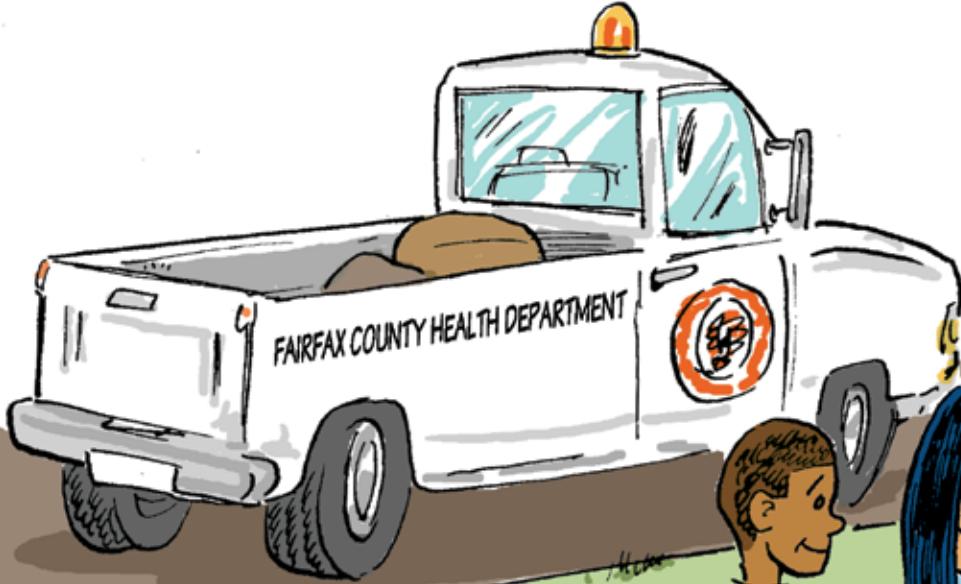
When they reached the storm drain, they saw that the air around it was still full of mosquitoes.

“Phew, it smells worse than ever!” exclaimed Noah. Maria picked up a pebble and tossed it into the storm drain. They heard a wet “plop!” as the pebble fell.



“Well, now we know where the mosquitoes are coming from,” said Maria.
“There must be standing water in the storm drain – it hasn’t rained for days!”
“The poster said to call the Fairfax County Health Department if we had any questions,” said Ethan. “Maybe they can help.” They told Maria’s mom what they had found and she called the Health Department to report the problem.





The next day, Maria, Ethan and Noah saw Maria's dad talking to some people at the storm drain. They had a truck that said "Fairfax County Health Department." They were setting up a funny contraption.

"This is a mosquito trap, kids. Please don't touch it," said one of them.

"Wow, will it catch all of the mosquitoes?" asked Ethan.



“No,” said the other person. “But it will help us learn more about the mosquitoes here, and what we have to do about them. We’ll test the mosquitoes that we catch for West Nile virus.” He looked at the three friends. “Your dad told us that it was your idea to call the Health Department. Thank you for being alert to the problem. Here, let me show you something.”

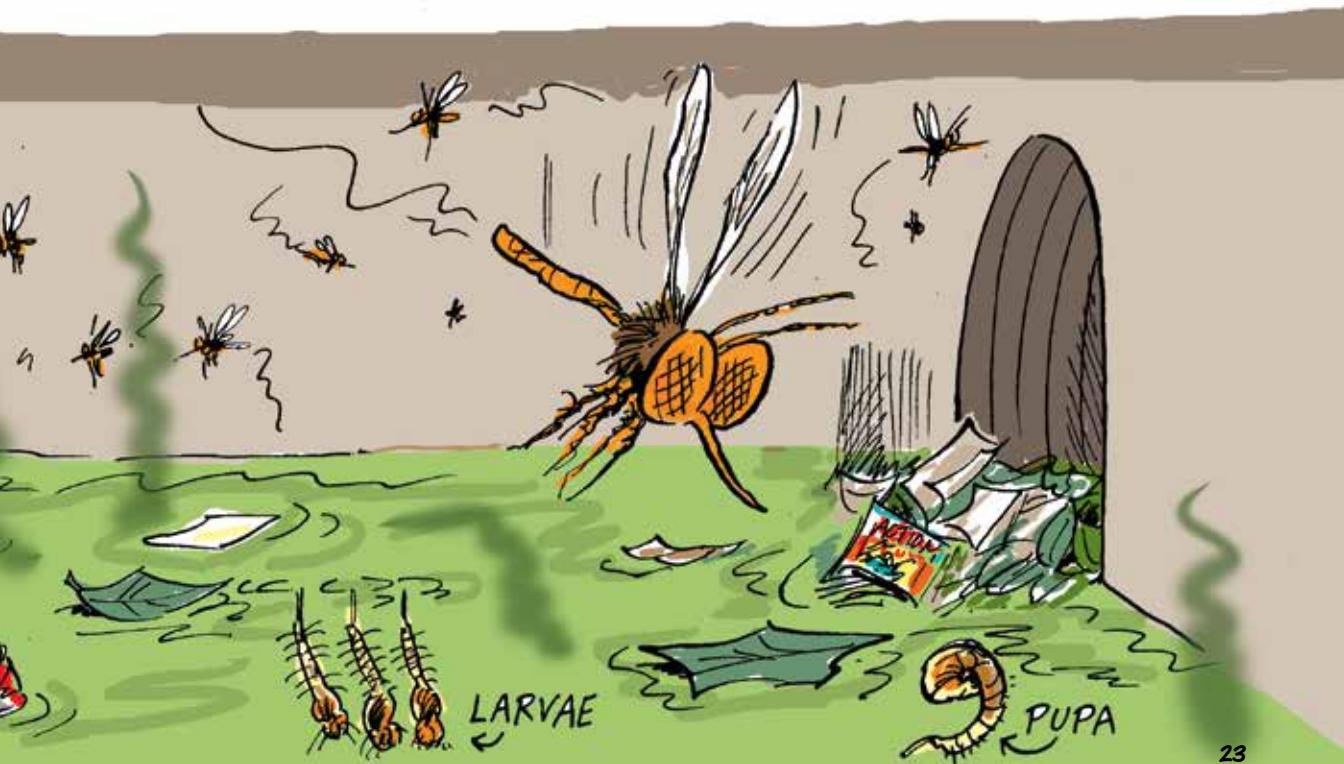


The man lifted the heavy cover to the storm drain. "Don't ever try to open this yourselves," he said. "It's very dangerous!" He aimed a flashlight into the hole and asked them to carefully look inside. Maria, Ethan and Noah saw



that the inside of the drain was full of grass, sticks, leaves and trash. There were even some bags like the kind that Maria's dad had taken away. The man replaced the cover and went to the truck.

"These storm drains are supposed to be clear of trash to let water flow through them. That is why you should not throw trash, leaves or yard clippings down these drains. We'll get a team to come out and clear this one." He unwrapped a package and dropped some tablets into the drain. "This is a larvicide. It will get rid of the mosquito larvae in the water, before they can turn into mosquitoes and bite anyone, but it won't hurt fish or plants. That should help."



“What about the coach and Mr. Owens?” asked Maria. “Do they have West Nile virus?”

“Anyone who thinks he or she has West Nile virus should see a doctor. A test will let them know if they have the virus. You and your friends should wear repellents because there are always bound to be more mosquitoes around.”

The Health Department team got into their truck. “Thanks for paying attention and reporting this. Together we’ll eliminate West Nile virus in our area. Let’s Fight the Bite!”

THE END



GLOSSARY

Larvicide - Product designed to eliminate mosquito larvae without harming plants or other animals.

Larva (*singular*) **larvae** (*plural*) - Young stage in the life of an insect. Mosquito larvae live in water.

Mosquito - A type of insect. Female mosquitoes bite animals and humans to get blood, and can spread diseases like West Nile virus.

Mosquito Trap - A device that captures mosquitoes. The Fairfax County Health Department uses mosquito traps to learn more about mosquitoes and the diseases they might spread.

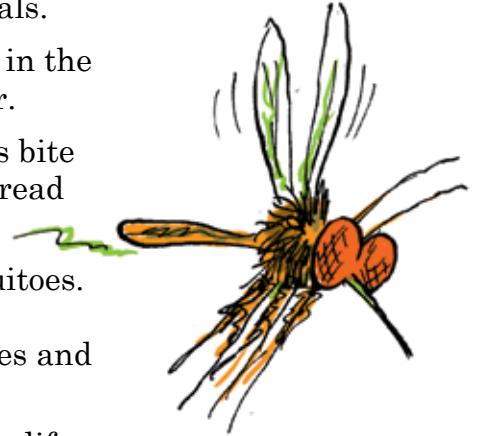
Pupa (*singular*) **pupae** (*plural*) - A stage in the life of some insects between the larva and the adult. Mosquito pupae live in water.

Repellent - A chemical that will repel mosquitoes and prevent mosquito bites. Repellents must be applied according to the label instructions.

Standing Water - Water that does not flow; instead it stays in one place. Mosquitoes lay their eggs on standing water.

Storm Drain - A part of the system of drains for collection and channeling storm water. Storm drains play an important role in keeping the water clean.

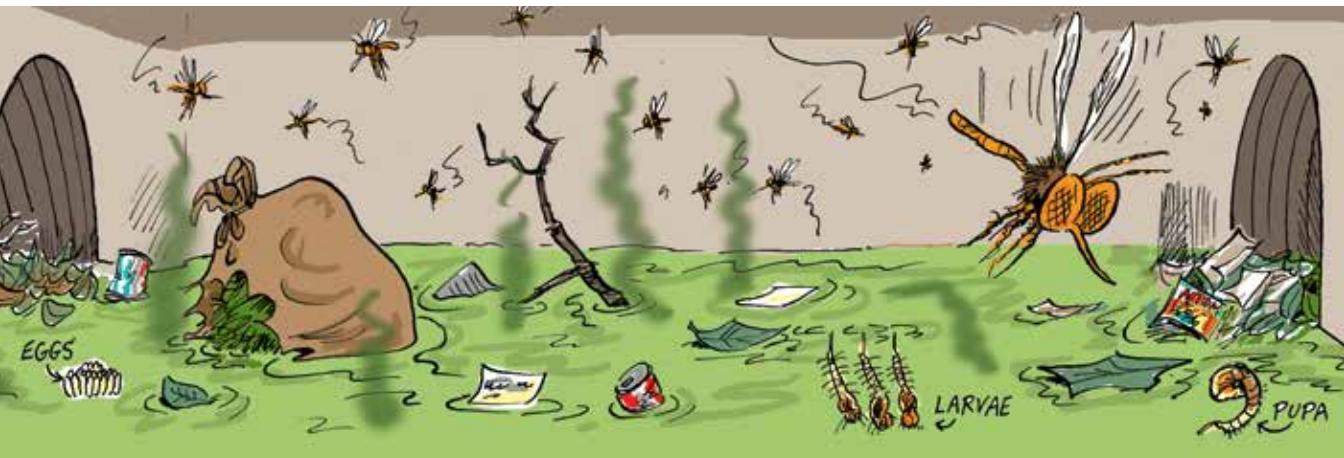
West Nile virus - A disease that is spread by mosquitoes and can affect animals, including humans. The symptoms sometimes feel like the flu.



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