

THE IMPORTANCE of BEING A MOUSE

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It was a long ride home. Lucinda was playing the alphabet game with her mom. You know, "A is for Apple," "B is for Beans," and so on... After doing fruits and vegetables, they tried working people. "C is for Computer Operator," "D..." After that game, Lucinda's mom said, "Now, let's try something you've never even thought of -- animals who work."

"Hold on -- that's silly! Animals aren't workers, they're pets."

"Think again," her mom said. "I'll bet you can name some animals that are trained to do special jobs."



"You mean, like the horse Caroline rides or the ones in the old days that pulled wagons or carriages?"

"That's right! They had to be trained to carry people or heavy loads."

"Hmm." Lucinda was thinking. "What about Mr. Dawson's seeing-eye dog?"

"You know," her mom said, "his training began when he was a puppy, and he had to spend about six months in a special school to learn how to lead a blind person safely. When he and Mr. Dawson met, they had to practice walking and being together. Finally, he was an official seeing-eye dog."

Lucinda was quiet for a minute before she asked, "What about cats? They catch mice in Nana's barn -- that's work, isn't it?"

"Yes, that's the way cats help keep the barn clean."



Her mom thought of something else.

"Did you ever hear about a tiny cigar-shaped fish called a wrasse? It's known as the dentist fish!"

"How does it get paid for its work?"

Her mom laughed and told her about wrasse. "They are not afraid of ferocious fish like sharks and barracudas. These little fish stand on their heads and do a special wobble dance to let the big fish know they are willing to clean their teeth. The big fish opens its mouth and the dentist fish swims inside and picks out bits of food and other things that are stuck between the teeth. The sharks and

barracudas are so happy to have clean teeth they never eat the wrasse. And I guess that's their payment!" she said smiling. "So you see, there are lots of animals that work. Have you heard about mice that work?"



Lucinda shook her head.

"They live and work in labs -- that's the short name for laboratories. Scientists and doctors could not do their work to find and test new medicines and cures for sicknesses without these mice. Together, they make a team. Mice are very important to the people who do research."

"What's research?" Lucinda asked.

"It's the scientific way to look for things," her mom told her. "First, scientists and doctors decide they want to find the answer to a question, such as, 'What gives a little girl like Lucinda a sore throat?' It's like a mystery, and they start thinking as detectives. 'Who did this crime against a nice girl?' 'Was it a virus or a germ?' 'Where did this nasty thing come from?' 'Who can help us find the answer?' That's the start of research -- asking questions. Then, scientists and doctors look for medicines to fight the bacteria or virus that may cause the sickness. They mix and test new medicines in test tubes before they use them. Computers help, too."



"What do the mice do?" Lucinda wanted to know. "Are they just watching? Do they wear white coats like doctors?" Lucinda giggled at her silliness.

"Not really," her mom said, laughing, too. "Most animals that are part of a research team are mice or rats that are bred and born for this special work. They are never pets."

In fact, they only live and play and work in labs. The mice and other animals are very well cared for by specially trained people. They are animal doctors, called veterinarians. There are also animal caretakers, who clean the cages and make sure the mice have plenty of food, water and fresh air."



"Do mice get treats like ice cream?"
Lucinda asked.

"No, because that's not good for them,"
her mom answered.

"Too bad!"

"The mice are born in a special lab. When they are old enough to join a scientific research team, they are moved to a research lab. They travel in well-ventilated boxes and often get apples to nibble on during the trip."

"Do they go to work right away?" Lucinda asked.

"No, they have a few days to get used to their new place and the new people who will take care of them."

"Then what do the mice have to do?" Lucinda asked.

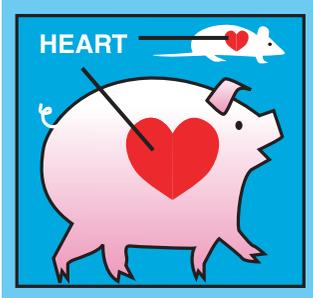
"Well," her mom answered carefully, "the mice are given shots or new medicines or new treatments, and no one knows for sure how these will work."

Lucinda asked, "Must we use animals?"

Her mom said, "Today, there is no better way to find answers. That's why animals are such an important part of medical teams that search for cures for diseases."

"You know," her mom continued, "without the help of mice and other animals, doctors and scientists would not know how new

medicines, vaccines, and antibiotics work. Every time a new cure is found, it has to be tested on a living creature. It's amazing, but



under their skins all mammals are very much alike. We all have blood and bones and tummies and hearts. It doesn't matter if it is a pig, an elephant or a mouse. Of course, scientists usually work with mice because they are very good helpers."

Lucinda was troubled and stated, "It isn't fair! Why should mice have shots that may make them sick? When I get a shot, it's so I won't get sick -- or it's to help me get well."

"That's true," her mom agreed. "But before you or any little boy or girl or grownup can be given a new medicine, we must be sure it is safe-- that's the law. And the only way to be sure is to first try it out in the lab on a mouse."

"Is there another way to test the medicines?" Lucinda questioned.



"Well, computers are used a lot. All the information scientists learn from their research is put into the computers. In fact, because of them, fewer mice or other animals are now needed for research," her mom said.

"But animals get sick. Does a mouse throw up if the medicine isn't good for him?" Lucinda asked.

"I don't know if a mouse does that," her mom replied. "The point is the new medicine might just be right and the mouse will feel fine. Or it might make him dizzy, or he might feel sick in some other way." "Or," her mom continued slowly, "it might die from the experiment."

"I still don't see why some animals have to be made sick and maybe die," Lucinda said.

"I wish they didn't have to," her mom replied. "But scientists and doctors need the help of mice and other animals, as well as tools like computers, to find the right medicines to cure sick people. For instance, I bet you don't know any children who are crippled because they had polio."

"Well--"

"When Nana was a little girl, thousands of children got sick or died from this disease, and it was still bad when I was in school. Dr. Jonas Salk spent years working in his lab doing research until he discovered a vaccine that would protect children from getting polio. He had to test the vaccine over and over before it was ready to use on people. Because he and his team did such a good job, hardly anyone ever gets that disease now."



Lucinda's mom continued. "Very few kids in the U.S. get measles or diphtheria nowadays. Even a strep throat gets better faster because of new antibiotics."

"Is that the same antibiotic our cat got when she was sick?" Lucinda asked.

"I imagine so," her mom replied. "Animals and people often get the same medicines."

"Are you sure the computer couldn't do it all?" Lucinda asked.

"I wish it could! But computers are very useful. Because of all the data collected about experiments, scientists and researchers know what other work is being done. That way, the same experiments are not done over and over again without a good reason. And more importantly, no mouse or other animal is used needlessly in research."

"Oh, I see!" Lucinda said.

"But," her mom continued, "some animals are still needed. So for now, there is no better way to find the right cures and medicines for all of us."

"Mmm," Lucinda murmured thoughtfully.

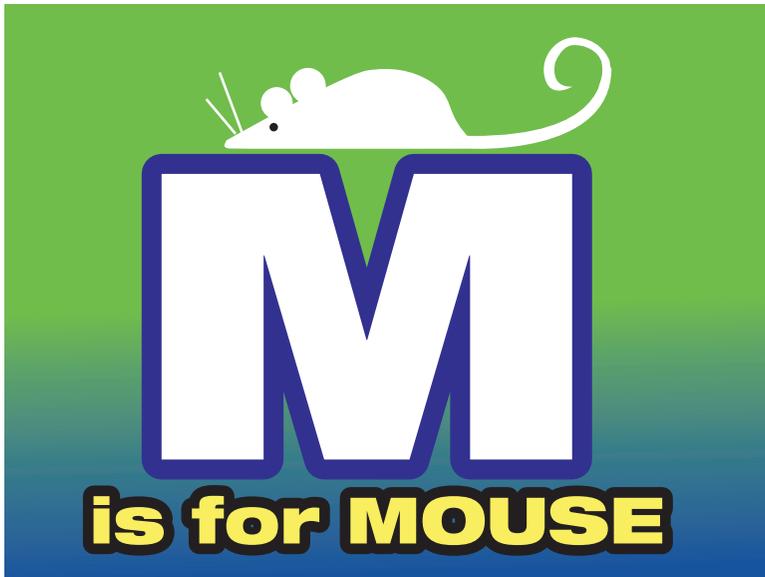
"We're almost home. I think our alphabet game today was very interesting," her mom said.

"I...I guess so," Lucinda mumbled.

"Remember, honey, because of the scientists, doctors and lab animals working as research teams, animals and people have healthier and safer lives."

"I'll think about that some more," Lucinda said.

"M is for mouse..."



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