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Kalvin Discovers the Secret Power of Camel's Milk

By: Kam Kaminske

Kalvin raced into the classroom. He was late again for his science class. His friends Jeremy, Sirena and Ginny were already seated in the first row. He was also kind of surprised to see Olivia and Aesop Owl sitting on the windowsill, excitedly waiting for class to begin. Dr. Sands, his family doctor (who was the guest speaker at school today), was standing patiently by the blackboard.

"Thank you for finally taking your seat, Calvin," Dr. Sands said while writing the words "Camel's Milk" on the blackboard.

"I'll be your science teacher today, and we're going to discuss one of the reasons why we camels grow up to be so big and strong."

"Camel's milk? What's so special about camel's milk?" Calvin quickly asked, thinking that if he asked the first question, Dr. Sands wouldn't mind so much that he'd been late to class.

"Good question, Calvin," Dr. Sands continued. "Would anyone like to start this discussion?"

Jeremy stroked his chin in a puzzling fashion, and then sputtered, "I just know that I never get sick".

Sirena opened her science book, fanning through its pages looking for a reason why they all seemed to stay so healthy. All of a sudden, an idea came to Sirena. "Well, we probably don't get colds because there's a lot of vitamin C in camel's milk," she proudly chimed in.

Dr. Sands moved to the blackboard to write "vitamin C - 3 times more than cow's milk". "And just how does vitamin C protect us, Sirena?"

Sirena pursed her lips and looked up toward the ceiling before replying, "it has an 'anti' something. I think 'anti' means

against, so it must work against the bad things that might hurt our bodies."

"Very good, Sirena," Dr. Sands responded proudly, "and the word is anti-oxidant, which means it helps protect our good cells from breaking down. But that isn't Vitamin C's only job."

Ginny walked over to the bookcase at the back of the classroom, and was paging through a thick book. With everyone's eyes on Ginny, soon the silence was broken when she began reading, "Vitamin C is also necessary for forming the connective tissues in our bodies."

"Connective tissues?" Jeremy loudly interrupted, while Calvin started poking parts of his body to see if he could figure out what that meant.

"Is that like muscles and stuff?" Calvin asked, as he raised his right front leg and flexed his muscles.

"Actually, it's blood, cartilage and bone that connects our muscles together," Dr. Sands replied. "But also helping Vitamin C is a very special protein in camel's milk." He then turned around to write the word "protein" on the blackboard. "Who knows how proteins can help protect us from diseases?"

All the camels just looked at each other to see who had the answer, but no one was ready to raise a paw.

Dr. Sands cleared his throat and decided to continue with his explanation. "Camels make a protein called 'lactoferrin', and there's 10 times more of it in our milk than a cow's."

"Yes!" Jeremy exclaimed triumphantly. "I don't know what kind of protein it is, but that and Vitamin C make us way better than cows for sure."

All the camels clapped their paws in response to Jeremy's comment, as there always seemed to be someone comparing cows and camels, trying to prove which one was better. Dr. Sands waited for the camels to settle down, and then tried to begin again.

Dr. Sands started to speak, but he was quickly interrupted by Calvin. "Yeah, we like that we have that 'lacto' stuff, but what exactly is it?"

Clearing his throat, Dr. Sands continued, "As I was saying, these special proteins try to kill bacteria and viruses before they can make us sick, or fight these bad 'bugs' if they do make us sick. Camel's milk carries this protein that contributes to immunity against infection. Does anyone know what 'immunity' means?"

Ginny quickly raised her paw to respond. "It means it can protect us against infections and disease."

"Exactly, Ginny!" Dr. Sands said as he wrote the words 'protects against bacteria & viruses' on the blackboard. "Doctors and researchers are now finding that our milk can help combat lots of illnesses in human beings, too."

"Wow! Calvin exclaimed. "That's awesome!"

"Yes," Calvin, "but we know that this protein isn't the only thing giving power to camel's milk," Dr. Sands said while pacing back and forth in front of the blackboard.

Ginny now started waving her paw so she could add something more to the discussion. "I know that it also has 10 times as much iron as cow's milk, and lots of calcium and B vitamins, too," she said, finishing with a broad smile.

Jeremy raised his paws above his head like a boxer that had just won a fight, once again signaling how much better camels were than cows. However, when he saw Dr. Sands shaking his head from side to side, he placed his paws back down at his sides and said, "Why, Ginny, you really are the smartest camel in our class!"

Ginny just beamed as her cheeks turned a bright blushing red. "My mom taught me that a long time ago when she was nursing me."

Dr. Sands printed "iron - 10 times more than cow's milk, calcium and B vitamins" on the blackboard's list of all the things that make up camel's milk. "By drinking our nutritious milk, desert people manage to survive without any fruits or vegetables for long periods of time."

"I'd choose tree sprouts over vegetables any day," Jeremy whispered loudly to Calvin, as he looked longingly out the window at some trees with new leaf growth on their tops. Olivia and Aesop Owl quickly directed Jeremy's attention back inside the classroom by spreading their wings to block his view.

"Yes, Jeremy, I'm sure you would," Dr. Sands said while clearing his throat, "but the nomadic herds in Africa don't have the same advantages you do living at Kamel Krest, here in Arizona. Because camels there need to survive in extreme conditions in arid lands, they've actually developed ways to keep producing milk for their young (and humans) for many years after giving birth."

"Dr. Sands turned toward the blackboard to see what items still needed to be discussed. "Oh, yes," Dr. Sands informed the class, "we have calcium and B vitamins remaining on our list."

Calvin began wildly waving his paw, and then couldn't keep himself from standing, as he said, " I know, I know. Calcium builds strong teeth and bones!"

"Excellent, Calvin," Dr. Sands replied, but before he could continue, Jeremy couldn't wait to make his contribution.

"And we have 34 strong teeth," Jeremy said while curling his lips and trying to make sure Dr. Sands could see every one of them.

"Thank you for that graphic display, Jeremy," Dr. Sands said, as he, himself, could not contain his smile. "Now, let's move on to the last group of B vitamins, because there are three of them." Dr. Sands printed "B-1 (thiamine), B-2 (riboflavin), B-12" on the blackboard's list.

All the camels now had blank looks on their faces. B vitamins were something they only saw listed on cereal boxes.

"Don't worry, class," Dr. Sands assured them, "I didn't expect you to know these, so I'm passing out this sheet of paper that explains what they do, as well as all the items we've discussed today. Sirena, would you please read how the B vitamins help us?"

Sirena stood proudly alongside her chair, and turned to face the class to read. "B-1, or thiamine, helps our brain functions, and in breaking down food into sugars to be used as energy. B-2, or riboflavin, helps convert food into the energy needed to do everything from moving to thinking to growing.

And, B-12 is one of eight B vitamins important for the functioning of our brain and nervous system, as well as forming our blood." Finished with her special task, Sirena sat back down at her desk.

"I think you'll agree that we've uncovered a lot about your mother's milk that you probably just took for granted all these years," Dr. Sands concluded, as he put his books and papers back into his briefcase.

Since Calvin had asked the first question in this class, he thought he should probably have the last comment, too.

"Well, Dr. Sands, knowing how powerful our mom's milk is, I think we're all going to be sure to give them an EXTRA BIG hug when we get home from class today," Calvin beamed.

And, from the looks on their faces, it was apparent that all the other camels heartily agreed!