

**The Web of Life:
One Health Interconnections of Pets, People, and the Environment
(One Health Lesson Plan for Upper Elementary)**

7th Annual NSTA STEM Forum & Expo, July 13, 2018

Author: Dr. Clarissa Noureddine, DVM, MS, MS

Preparing Society to Create the World We Need through One Health Education

Lesson Plan Summary:

Students will hear a story about a girl who is going through the process of adopting her first dog. The story will be read in sections with breaks between sections for additional conversation and/or activities to emphasize major concepts covered in the reading. This lesson is meant to be read alongside the Web of Life PowerPoint slides provided on the One Health Educational Resources webpage (<http://bit.ly/2tJy3l0>). This lesson can be done in one day, or stretched out over four days (based on the four main sections of the story).

Learning Objectives:

Students will be able to:

- Understand steps to take to remain safe around pets and wildlife.
- Understand that some diseases can be shared between people and pets, and there are some basic steps that people can take to help minimize this risk.
- Recognize that all living creatures deserve humane treatment.
- Calculate the cost of owning a pet.
- Think through all the responsibilities involved owning and caring for a pet.
- Define and understand relevant character traits: empathy, advocacy, kindness, respect, responsibility.
- Appreciate the importance of displaying these character traits toward other people, animals and the environment.

Activity:

Story: Chloe's First Pet

Section 1: (Read story aloud to students)

Chloe was so excited! Today was the big day. Her family was going to adopt a dog this morning from the local animal shelter! Chloe had wanted a pet since pretty much forever. Her family had talked many times about whether they were ready for a pet. It was easy to think about how much fun they could have with a pet, but Chloe's family also knew that owning a pet was a big responsibility.

As they were driving to the shelter, Chloe started thinking about what her Dad had said the night before. "Chloe, you are 10 years old now. Do you remember what your

favorite toy used to be?”. “Yes I sure do Daddy! It was my doll Saige”. Her father continued, “Where is Saige now?” Chloe paused for a moment to think. “Ummm, maybe in the basement?”. “Yes”, her father said. “That’s because you have grown older and found new interests. That’s ok, that’s what kids sometimes do with toys they have outgrown. But owning a pet will not be like that. A dog is a living, breathing animal who will be completely dependent on us for everything – food, water, shelter, walks, play time, grooming, and the list goes on. When you adopt a pet, you become a lifelong caregiver and advocate for that pet.”

Teacher: *Pause here and work through the discussion questions for section 1.*

Section 1 Discussion:

- 1. Raise your hand if you have a pet.**
- 2. Raise your hand if you have more than one pet.**
- 3. Raise your hand if you have a friend, family member or neighbor who has a pet.**
- 4. What kind of things do pet owners need to do for their pet each day?** (Walk, feed, water, groom, play, take to the veterinarian for check-ups and when sick, etc.)
- 5. Raise your hand if you have you ever heard your parents or teacher ask you to be responsible for something.**
- 6. What kinds of responsibilities might your parents or your teacher give you?** (Lots of choices)
- 7. Chloe’s Dad described a lot of responsibilities that they would have if they adopted a pet. Do you remember what some of them were?** (Relist)
- 8. How do you feel after you have done something responsible?** (Good, proud, happy, accomplished, etc.)
- 9. What is the opposite of responsible?** (Irresponsible)
- 10. How do you feel if you do something irresponsible?** (Disappointed, embarrassed, not proud, etc.)
- 11. Does anyone know what the word advocate means?** (That’s OK if you don’t know. An advocate is someone who speaks up for others and makes sure they are treated the right way.)
- 12. Have you ever stood up for someone being bullied?** (Then you were an advocate for that person.)

Section 2: (Read story aloud to students)

Finally! As Chloe’s father parked the car, she could hear some of the dogs barking in the outdoor runs. Chloe entered the lobby with her Mom and Dad where Megan, one of the shelter’s staff members, greeted them. Megan was pleased to meet Chloe and her family, and she took a few moments to explain some very important things about visiting with the animals at the shelter.

“First of all, everyone’s safety is important. These animals are new to you, and you are new to them. Most animals are just excited to meet people and have some fun. Yet, just like you

might feel shy or nervous when meeting someone new, some animals may also feel scared. But that's OK because I'm going to go over some basic animal safety tips that will help keep you safe here. Even more, you can use these animal safety tips whenever you are going to interact with a new or unknown animal."

1. You should always ask an owner or handler permission to pet or interact with a dog or cat that is not your own.
2. Go slow, and be gentle. You are much less likely to startle the pet that way.
3. It's best not to reach your hand over the head of the animal. He or she might interpret this to think you are going to cause harm. Instead, try petting under the chin or on the back.
4. Try and put yourself in the animal's shoes (or "paws") and consider how he or she might be feeling. This will help you better understand what the animal might be thinking or want (or not want) you to do.

Teacher: Pause here and work through the discussion questions for section 2.

Section 2 Discussion:

1. **Megan talks about being gentle with the animal and taking care not to appear threatening when reaching to pet the animal. Why is it important to be respectful of and kind to the animal?** (Lots of answers are possible)
2. **Megan suggested the family put themselves in the animal's shoes (or "paws"). There is a word for this. Does anyone know the word?** (It's called EMPATHY. Empathy is an important skill for all of us to learn and practice all through life. Let me give you an example. Did you ever see a person or animal in trouble and imagine how you might feel if you were in that situation? That's called empathy. Empathy is your ability to understand how someone else might be feeling. As Megan said, it's putting yourself in someone else's shoes or paws.)
3. **Megan instructed Chloe and her family to ask permission before petting the animal. So what do you do if you find a dog or cat without an owner?** (The best thing to do is turn and walk the other way. The animal could be a stray, and there is no way to know if you can safely interact with that animal. Stray animals may be more likely to bite or cause harm, and they can also carry diseases.)
4. **Can someone give me an example of a wild animal?** (Lots of answers are possible)
5. **Does anyone know an example of a disease that wild animals might have?** (Lots of answers are possible, definitely touch on rabies. Rabies is a deadly virus that can infect mammals. Rabies can be prevented in dogs and cats with a rabies vaccination.)
6. **Should you approach wild animals?** (No. Wild animals should be observed and appreciated from a distance. We could scare them if we get too close.)
7. **Should you feed wild animals?** (Wild animals know how to find food and fend for themselves. It is best not to interfere with their daily food gathering or hunting routines. Providing food for wild animals can cause them to get too comfortable with living too closely to people.)

8. **Do we keep wild animals as pets?** (No)
9. **What should you do if a wild animal accidentally got into your house? For example, what if you found a bat in your house? Can you see if a bat has bitten you?** (Not necessarily.) **Should you catch the bat? NO Should you let the bat go?** (No) **Why?** (Because bats can have rabies. You should contact your doctor AND animal control so that they can remove the bat and have it tested for rabies.)

*Teachers – The One Health Commission has free downloadable posters available to help teach children to never touch a bat. You can find the posters here:

www.onehealthcommission.org/en/programs/bat_rabies_education/

Section 3: (Read story aloud to students)

Megan continued sharing information with Chloe’s family. “The animals here in the shelter all need a “furr-ever home”. You will see dogs, cats, and pocket pets of all sizes and colors. Each one has a unique personality and history of experiences. As you look around and think about the different pets, we think that the following questions will help you find the best fit for your new furry companion.”

- What type of pet best fits your lifestyle? Can you let an energetic Jack Russell Terrier run around and play a lot each day? Or, are you hoping for a snuggly lap cat who does not even need to be walked outside?
- What types of supplies and space will your new pet need? Do you have room for a big Great Dane in your home?
- Can you commit to taking care of the pet for his or her entire life? A cat could live up to 20 years. Small breed dogs tend to have longer lifespans than large or giant breed dogs.
- Does the animal’s personality seem to fit with what you are hoping for?
- Does someone in your family have allergies to a particular type of pet?

Chloe thought these were great questions, especially since she and her parents had already come up with answers to most of them during their previous conversations. Chloe had also realized that for some people, the most appropriate and responsible pet ownership decision was actually to not adopt a pet. For example, her friend and neighbor Douglas was allergic to pets, so his family decided a long time ago that owning a pet would not be right for them.

Megan led them through the shelter where the family saw and greeted a lot of pets. Chloe’s family paused when they came upon a German Shepherd named Pattie. She had kind eyes and her tail was wagging. Megan helped them lead Pattie out to the play area. Pattie perked up even more outside. She was playful, yet gentle. Ultimately Chloe and her parents realized that Pattie’s favorite thing was to just be petted and loved on. They knew they had found their new dog.

Chloe couldn’t wait to get Pattie in the car and take her home! “Hold on!” Megan said. “I have some really important information to send with you about how to take excellent care of Pattie now that you have adopted her. Pattie has already been spayed (or “fixed”), which

means she won't be able to have puppies. Spaying (females) or neutering (males) is our best way to fix the problem of pet overpopulation. There are too many pets who don't have families, and these animals either wander the street or live in animal shelters or with rescue groups. If everyone had their dog or cat spayed or neutered, then we would not have as big of a problem with overpopulation.

Pattie has also received certain vaccinations so that she could stay healthy in the shelter. There are other vaccinations available for dogs that may be important for Pattie depending on what kind of lifestyle she is going to have. You should plan on taking Pattie to a veterinarian within the next day or two. The veterinarian will examine her and discuss all sorts of important wellness care information that will help you keep Pattie protected and healthy."

Teacher: Pause here and work through the discussion questions for section 3.

Section 3 Discussion:

- 1. When Megan talked about all the different types of pets in the shelter, one of the things Megan was trying to demonstrate is that each pet is an individual, just like each family is made of unique members. Why is this important to understand?**
(We need to be able to think about the needs of individual living creatures; different animals will respond to different cues; animals who are more timid may not be as happy in households with lots of commotion; lots of answers possible here.)
- 2. Each animal has feelings; each family has feelings about what might or might not work for them in a search for a pet. Why is it important to understand this?**
(Because these things should be considered prior to adopting a pet – this will make the adoption be more likely to work out. For example, an energetic dog could be bored in a home with a family who doesn't take the dog out to run around and exercise.)
- 3. Megan talked about how there are too many animals and not enough homes to take them in. She called that problem pet overpopulation. Do you remember what the solution is to pet overpopulation?** (The solution is for pet owners to spay or neuter their pets so they will not be able to have more puppies or kittens.)
- 4. Do you recall what Chloe was remembering about her friend Douglas?** (Douglas had allergies.)
- 5. That's right, so his family felt it was best not to have a pet. There are many other reasons why people might choose not to adopt a pet. Can you give me some other examples?** (Not enough space for that particular pet; Not enough time to give the animal the attention and care it needs; The pet may require more financial commitment than the family is willing to accept at that point; etc.)
- 6. Extra Assignment Option: How much do you think it might cost to own a dog or cat?** (Have the students go home and do some research. Have them each come up with a list of at least 5 things a pet dog or cat would need. Then, they can either look online or call (a veterinary clinic, or pet store depending on the item) to get some prices on those things. Major answers would be: Wellness care (vet exam, vaccines,

heartworm prevention, flea/tick prevention); Food; Collar; Microchip; Shelter (dog house/ dog bed), etc.); Money for unexpected accidents/ emergencies. When they come back with their answers, they can hear what their classmates found too. At the end of the discussion, remind them that the cost of many of those items would need to be multiplied by however many years the pet might live).

Section 4: (Read story aloud to students)

Once they were all in the car, Chloe told her Mom and Dad that she wanted to get Pattie to the veterinarian as soon as possible. They scheduled an appointment for that afternoon with Dr. Nelson. Dr. Nelson said Pattie seemed very healthy. She reviewed a lot of information about vaccines and preventive care choices for Pattie. Chloe learned that Pattie needed a variety of vaccinations so that she would be protected against many diseases – some of which could even be diseases that humans could get! Chloe also learned that dogs can easily become infected with parasites such as fleas, ticks, intestinal parasites, and heartworms. ICK! Chloe couldn't stand the thought of Pattie having ANY parasites so she wanted to make sure that her family did a great job of keeping up with Pattie's parasite preventive medications. Chloe thought that fleas and ticks were just creepy, but Dr. Nelson pointed out they can also carry diseases that can be spread to humans. Chloe thought intestinal parasites sounded disgusting and gross, but again Dr. Nelson explained that some intestinal parasites of animals can be transmitted to people.

Teacher: Pause here and work through the discussion questions for section 4.

Section 4 Discussion:

1. **We heard Dr. Nelson mention diseases that can be transmitted between animals and people. There is a special word that we can use to describe these kinds of diseases. They are called zoonotic diseases. What are some ways that you might be able to reduce the chances of getting a disease that can come from animals?**
 - a. Wash your hands after petting or handling animals, and especially before eating or drinking.
 - b. For the zoonotic diseases we can vaccinate against (for example, rabies), keep your pet's vaccines up-to-date.
 - c. Use flea and tick prevention year-round so that your animal does not end up with a flea or tick problem.
 - d. Scoop your pet's poop! The eggs of intestinal parasites can be passed through the pet's poop. If the poop sits around in the yard, the eggs can contaminate the environment – and sometimes remain infective for years and years. If owners quickly remove pet's waste from the yard, then they are also removing the chances of parasite eggs contaminating the yard.
 - e. Cover sandboxes when not in use. This will keep outdoor cats and other wildlife from using the sandbox as a litter box.

2. **Activity option:** Contact a local pet therapy group and see if they have someone who might come and visit with your class.
 - a. It's important to only bring in certified pet therapy dogs to help ensure the safety of your students.
 - b. These handlers can talk about what they do to take care of their dog, train the dog, etc.

Conclusion: (Read story aloud to students)

When Chloe and her family arrived back at the house, they took Pattie for her first walk in the neighborhood. They made sure to keep her on a leash so she couldn't run away or run into the street in front of a car. That evening, they fed Pattie dinner and made sure her water bowl was fresh and full. They showed her the bed they had set up for her to sleep on. Pattie curled up in a ball and went to sleep. Chloe thought Pattie looked so peaceful and content. Not only was she so happy that she had her very own pet dog now, she was also thrilled to think about how her family had rescued Pattie. They were ready to give Pattie a life full of love, fun, and happiness. Chloe had a day packed with excitement and new information. She couldn't wait to share all that she had learned with her friends at school! That night, Pattie got her best night's sleep ever!

References and Additional Resources:

- Guilford County Pet Responsibility Program (petresponsibility.wordpress.com)
- Humane Society of the United States – Lesson Plans for Teachers (www.humanesociety.org/parents_educators/lesson_plans_for_teachers.html)
- Moore County Citizens' Pet Responsibility Committee (<https://mcprc.org>)
- One Health Commission Bat Rabies Education Team (www.onehealthcommission.org/en/programs/bat_rabies_education/)