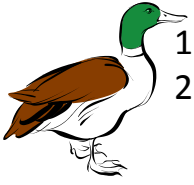


Rosco



1. Read the story.
2. Re-read the story. As you re-read, stop at the places that have been **underlined and bolded**. Identify and record the science concept that explains this detail in the story.

Behind our apartment there was a little trail that led to a pond. One of my baby sister's favorite things to do on Saturday morning was to feed stale bread to the family of mallard ducks that lived around it. My sister had been irritating me all morning to get outside, but the morning rain had not allowed us to get out as quickly as she wanted. Eventually the weather cleared and my mom allowed us to head out.

Going to the pond is always interesting. We always **see and hear** amazing things. Last weekend we actually saw a hawk swoop down in the brush and come up with a little mouse. That was so cool!

The walk this weekend proved to be equally as intriguing. In less than a minute, the small patch of forest was coming alive. Fat robins were pecking around eagerly searching for earthworms, pileated wood peckers were drilling insects out of the trees, and the sounds of brown squirrels' nails scraping against pine trees as they chased each other kept diverting our attention.

This morning everything seemed to be especially brilliant in color. There were a lot of daffodils (jonquils) that had bloomed during the week. Little droplets of dew, perhaps left over from the rain, were hanging off their big yellow petals, tinkering on the edges, waiting for gravity to force them to the ground.

With a finger pointed in the air and an "Ooh! Ooh! Look!" I followed my sister's finger to the source of her excitement.

She was really excited to **see a dim rainbow in the sky**, joking that we couldn't run fast enough to retrieve the gold because it was fading so quickly. She was definitely right. Yet, even though it was faint, you could still see the arch formed in red, yellow, green, and purple (violet).



As we got closer to the pond, we heard something splashing in the water. My sister got excited, thinking it was the mallard duck family. However, this was clearly not the case. At the pond there was a man and his dog. We weren't sure what they were doing, but we could tell the mallards were not keen on their activities. The mallards had all huddled together at the opposite end of the pond, **squawking madly in their direction.**

They were so loud that it was as if their quacks were amplified in our direction.

When we got closer, we could see that the man was **blowing a whistle at the dog. It was weird though, because the whistle wasn't actually making any noise.**

What was this guy doing?

My sister was growing more upset by the second.

Much to my dismay she started whining saying, "All I want to do is feed the ducks." It was as if because the ducks were upset, so was she. So, I tried to calm my sister by telling her that I would talk to the man and see if he would stop long enough for her to feed the ducks.

When I approached the man he blew the whistle at his dog. The dog stopped immediately in his tracks.

Water was dripping off his coat leaving a big puddle as he sat next to the man. The dog looked at both of



us as if he were waiting for the command to lick me to pieces. “Swish, swish, thump, swish,” his tail was wagging furiously against the dirt and grass. The man smiled at me, saying “How can I help you little lady?”

As I started to talk, I realized I was a little nervous to approach this stranger, which led to **my voice cracking a little.**

It reached a super high pitch, and then returned to my normal range, as I said,

“Hi sir, I don’t mean to bug you, but my sister is really upset right now. You see, she waited all morning to be able to feed the ducks. It seems that whatever you are doing with your dog is really upsetting them. I was wondering if you would mind taking a little break just so she could can go over and feed them for a minute?”

The man looked at me for a few seconds. Then he looked at my sister a few feet behind me. She had tears streaming down her face. He replied, “Oh I see now. Well, of course. I am sure Rosco, that’s my dog’s name, would love to take a little break. “There was a little pause, and then he said, “You know Rosco actually needs to get used to other people. So how about I also show your little sister how to work with my dog here? It would help me and Rosco out actually. You see I am trying to train my dog to retrieve ducks that I shoot when we go hunting. Do you think she would like to help me out?”

I thought about this for a few seconds, thinking about how cool it would be to blow the dog’s whistle different ways to get him to do certain commands. I was also thinking about how upset the ducks and my sister were too though. This was a tough decision. So, I asked the man, “If you are just training your dog, then why are the ducks so upset?” The man chuckled, saying, “Their feathers are all ruffled because Rosco here keeps splashing in their pond. He’s not trying to catch them or do anything hurtful though.”

This reassured me, so I turned to my sister telling her that we would go feed the ducks after we worked with Rosco. Her tears slowed down a little as she asked, “What do you mean? Who’s Rosco?” I explained to her that the man wanted us to use the whistle and work with his dog, Rosco, to follow commands. It only took her a second to be excited about this. My little sister loved dogs.

She went over to Rosco and immediately started petting him. He was still wet from splashing in the pond, but she didn’t seem to mind. Rosco, of course, licked her face and wagged his tail even more ferociously. The man explained what he wanted us to do with the whistle and we set to work. The man was going to “hide” somewhere around the pond and we were to give alternating blows on the whistle until Rosco found his owner. One blow on the whistle meant Rosco should go toward the target, two blows meant stop. This sounded more like a game and less like training! We were all quite excited.

My sister and I took turns giving the dog commands with the whistle. Rosco would stop, we blew the whistle twice, Rosco would move forward, we would blow the whistle once...

All the while, we still couldn’t actually hear the whistle!

It was so much fun! Rosco eventually got to the man and we were all so excited!

Rosco came running back toward us, wagging his tail excitedly, and jumped on my sister for some more face licking.





Unfortunately, my sister did not have a good grip on the training whistle, and “Plop!” It went in the pond.

She squealed in dismay, pointing in the direction that it landed.

Rosco and I both splashed into the pond to retrieve the whistle.

I reached down to where it seemed like it was located, but kept missing it terribly.

It could have been because Rosco was still splashing water everywhere, but it seemed much harder than I expected. The man saw me struggling and called Rosco out of the water. Once all the splashing subsided, I tried again. It still took me three times to pick out the training whistle, but I eventually managed to get it out of the water. The man and my sister looked at me kind of chuckling because I was soaking wet just like Rosco now.

Explain the *scientific* events in the story. A sample has been modeled for you.

Detail in the story	Science concept	Scientific explanation	Visual explanation
See and hear			
Dim rainbow (paragraph 5)	Light refraction	Visible light is “broken up” by water vapor in the atmosphere	