Journal Entry #1

Darwin, Ahead of His Time, Is Still Influential, New York Times Science, February 9, 2009, http://www.nytimes.com/2009/02/10/science/10evolution.html?_r=0

What was the article about?

This article was about Darwin's theories and how many of them have been doubted by scientists for decades. Many people didn't believe he was correct. The correctness of his theories of group and natural selection are still being argued over to this day and it's surprising that a scientist's ideas from a century ago is still the topic of many experiments and discussions. The author also goes on to talk about why Darwin was so scientifically ahead of his time. It wasn't because he was stronger intellectually, but because of the amount of time in research and thought he put into each of his theories. He didn't have any commitments, such as weekly science articles, to keep up with so he had endless hours to experiment with his theories. The author also tells his readers that Darwin never gave up if his theories were wrong. He thought about them in great depths until they were proved right. Darwin also was very confident and dealt with the results of his theories, whether they were pointless or not, very well. He was so sure of his theories that he always found a way for them to work, even if they didn't do much, like how natural selection didn't have a purpose.

Why were you interested in looking at the article? What stood out to you?

I was interested in reading this articles because I knew who Darwin was and I knew what he had done. A few months ago I watched a documentary on him and it showed many of his expeditions and the theories he had come up with. I also have studied him before in science class and am familiar with his theories. I also wanted to read this because I knew about present scientists studying his theories and trying to prove and disprove them. It interests me that a scientist's theories from a century ago could still be talked about to this day.

How did this article help increase your knowledge of science issues?

This article taught me about Darwin's theories, natural and group selection in particular. It taught me that people and animals have similarities in how we have evolved and that physical attraction to the opposite sex happens in the same ways, by their beauty or strength. This article also showed me that Darwin was persistent and sets an example of sticking with what you believe.

Journal Entry #2

Mega-Volcano, Magma Map Mark Seismic Advances, Los Angeles Times, September 7, 2013, http://www.latimes.com/science/sciencenow/la-sci-sn-map-magma-20130906,0,3378000.story

What was the article about?

The article was about a new scientific discovery in how and why volcanoes make island chains and mountain ranges in a line. It was a report on the study from Berkeley-Maryland. One team worked from the university on a 3D magna map that shows where magna is under the earth's surface and how it navigates through small canals in order to rise. The other team went on a scientific cruise near the Japanese islands to study how most of the island chains and mountain ranges form along the edge of tectonic plates. They also investigated how "hot spots" work. They discovered that magna sits under the earth's surface in a big pool and moves in currents through long tunnels that extend for thousands of miles and in spots moves up towards the surface in columns. Where the columns meet the surface is where "hot spots" are. Both of groups were answering the same question: how does magma flows and contribute to volcanic eruptions?

Why were you interested in looking at the article? What stood out to you?

I was interested in looking at the article because I saw that there was a discovery. I like to learn about new discoveries because I like to know that the information we learn in textbooks about science or any other subject isn't permanent. People and researchers find new facts and information everyday that can change everything about a topic people considered was finished. I like to know that there are always new discoveries and that the world hasn't stopped changing because a fact is written in a textbook.

How did this article help increase your knowledge of science issues?

This article showed me that even the most professional scientists in the world do endless amounts of research. It also shows that they use the scientific method. These scientists studying the paths of magna made an observation that island chains and mountain ranges tend to form in lines and then they developed a hypothesis, but when they researched and experimented with the question they asked when they made an observation. As the experiment progressed, they made new observations and collected more data and information than they expected they would find when they began. They found out about the magna "pools" and that it extended with the motion of the tectonic plate above it. This article shows me that what I learn in science class today, no matter the simplicity, will be useful one day.

Journal Entry #3

Where's the Octopus?, Science Friday, August 5,2011, http://sciencefriday.com/video/08/05/2011/where-s-the-octopus.html#path/video/08/05/2011/where-s-the-octopus.html

What was the video about?

The video was about cephalopods, which are squid, cuttlefish, and octopi. It was a video about their remarkable, yet mysterious way of camouflaging. A marine biologist named Roger Hanlon had been scuba diving, taking some footage of the ocean floor and when he swam passed what seemed a normal plant, an octopus suddenly turned bright white and inked him. He followed it around for a while; taking constant footage of it quickly camouflaging into various surfaces and plants. He was interested by its ability to camouflage so instantly so he went into deep research on how cephalopods skin works. Hanlon found out that they have cells in their skin called cromatophors that are brown, yellow, and maroon. These cells constantly change size and shape to change the color of the majority of the skin. Under those cells are reflectors that pick up on colors in the surrounding environment and they are how the cromatophors know what size or shape to turn to. Cephalopods can also change their skin texture.

Why were you interested in looking at this video? What stood out to you?

I was interested in looking at this article because we got the link. I was looking for an article to read and I saw the title *Where's the Octopus?* I wanted to know what it was about. I got interested when I saw how fast the octopus changed colors and I wanted to know how they did it.

How did this video increase your knowledge of science issues?

This video reminded me of the characteristics of life that we are talking about in science this week. In particular, it reminded me of how all-living organisms respond to stimuli, and they all do it in different ways. The cephalopods camouflage, dogs bark, and bees sting. It showed me how it's true that all living things are similar and can be related in one way or another.

Journal Entry #4

'Rivers on Rolaids': How Acid Rain Is Changing Waterways, Cary

Institute, September 13, 2013, www.caryinstitute.org

What was the article about?

The article is about the effects of acid rain on the earth and waterways. Since there has been a large amount of acid rain in the past 50 years, waterways have been severely affected. In the first 25 of the 50 years, the acid rain itself went into the water and made some waterways "as acidic as tomato juice", killing trees and other organisms that use the water as a resource. Recently, the scientists have found that the rivers have developed a way to protect themselves from the acid and they started to produce alkaline. The alkaline levels are eroding away at the banks of rivers and streams because it eats away at limestone. The alkaline can erode bridges and other manmade things too, causing them to be damaged. Scientist Gene Likens says it's like the rivers took a Rolaid to prevent acid. The overproduction of alkaline is causing freshwater bodies to overproduce bacteria and algae, which removes a lot of oxygen from water. This can negatively affect freshwater organisms. One good thing is that studies are showing less acid rainfall in the past 5 five years.

Why were you interested in looking at this article? What stood out to you?

This article stood out to me because it's from Cary Institute, which is a science laboratory from my hometown in Millbrook, New York. I was familiar with the article's background. I also made a connection between the article and the biotic and abiotic factors we have been learning about in class.

How did this article increase your knowledge of science issues?

When I read the article, it showed me how much the different factors of an ecosystem really affect each other. The abiotic factor of acid rain affects the biotic organisms living in freshwater because the acid rain makes the water produce algae and bacteria that takes the oxygen out of the water, making it difficult for fish, turtles, and other animals to breathe in their habitats. It also shows me that the environment evolves over time to adapt to foreign conditions in a similar way to animals. The waterways noticed the deaths of the vegetation on banks and nearby so it developed a way to protect itself from the acid and produced alkaline.

Journal Entry #5

Hornets Sting 19 People to Death in China, CNN, September 27, 2013, www.cnn.com/2013/09/27/world/asia/china-asian-hornet-deaths/index.html

What is this article about?

This article is a news event about deaths in China due to the venomous Asian hornet. It explains an unbelievable number of deaths, 583 since July 1. It goes on to explain why the hornets are coming into the area in big numbers and attacking people. The hornets' normal habitat is high altitude areas in Asia that are tropical. Recently, the area they are common in has become hotter and drier, causing their prey, the honeybees' larvae, to be diminishing. The hornets' sense of smell is carnivorous so when they search for prey, they pick up on human scent, which they attack as if they were prey. The hornets are so venomous the poison in their sting can actually eat away at human flesh, causing severe injuries and deaths to the people of the area.

Why were you interested in looking at this article? What stood out to you?

We got the link and I looked at it. I was especially interested because it was a current event in the news over the weekend, meaning this event is what is happening on the other side of the world. I also made a connection between the hornets population growing in the area to the reasons we are learning about in class recently.

How did this article increase your knowledge of science issues?

This article showed me another example of the affect of one species on the rest of the food chain. Like the orcas in class, when the hornets were running low on their normal food source, they found a new one. Even though it may not be the correct type of food for the species, the hornets feed on human flesh in order to survive. It proves to me how one species altering in one food chain can affect a whole food web.

Journal Entry #6

China's Brutal One-Child Policy, New York Times, May 21,2013,
http://www.nytimes.com/2013/05/22/opinion/chinas-brutal-one-child-policy.html?_r=0

What was this article about?

This article was about the effects of China's one-child policy and its negativities on the country's people. It has extreme effects on the poor people who live in rural areas. They need extra workers to farm and tend to their vast fields. The one-child policy favors the rich because it requires a payment if they want a second child of about twice their annual income. It also makes China's abortion rate go up to high rates. Many women have a who have a first child accidently get pregnant with their second and are forced to get an abortion unless they can pay the fee, which most people can't afford. Women also abort many baby girls if they are their first because boys are wanted to ensure reproduction. China is the leading country for female suicides because of the pressure they have to go through protecting themselves from childbearing or aborting their children. The policy is also making the birthrate drop, making it impossible for China to reach the replacement level, causing a quick increase in age of the general population in the next few decades. What the Communist Party thought would help the economy actually caused many problems nationwide in China.

Why were you interested in looking at this article? What stood out to you?

I was interested in looking at this article because it reminded me of a book I read in sixth grade about a society in which each family was only allowed to have two children. Its main character was the third child in a family who was illegal so the parents had to hide him in the attic so the government wouldn't take him away. It also reminded me of the more developed and less developed countries we are learning about in class.

How did this article increase your knowledge of science issues?

This article showed me why China, one of the most industrialized and most populated countries in the world is considered a less developed country. It showed me why keeping a birthrate stable is so essential to both the population and the economy.

Journal Entry #7

*Young Apes Manage Emotions Like Humans, e!Science News, October 14, 2013,*http://esciencenews.com/articles/2013/10/14/young.apes.manage.emotions.humans

What was this article about?

This article was about how a type of ape, called a bonobo, and humans develop emotions in the same way. Two scientists went to an observation habitat for bonobos to study them. They studied the bonobos' emotions for others and themselves. The studies showed that the emotions the bonobos felt after a conflict only involving themselves was much more temporary than when they sensed another was distressed. They comforted their friends with hugging and kissing. These emotions and actions proved to be very similar to a human's, because they are both very genetically similar. The scientists showed that by knowing the effects of their emotions would help scientists predict human actions.

Why were you interested in looking at this article? What stood out to you?

I was interested in looking at this article because the similarities between apes and humans has fascinated me ever since I went to the Museum of Natural History in fifth grade. When I went, I saw the evolution exhibit and it showed the theory of how humans have evolved from an ape into the primitive man into the modern human. When scientists prove another similarity, I like to look into how much we are really related.

How does this article increase your knowledge of science issues?

This article reminded me of what we are learning in class, which is species and their names. It reminds me of the two parts of scientific name and when two animals have the same genus, they are very similar, but not exact. Even though we do not share the same genus as apes, our genetics are similar and it's possible that a long time ago, in the past, humans and primates were possibly in the same genus.

Journal Entry #8

First Ever Sighting of the World's Rarest Whale on New Zealand Coast, theguardian, November 6, 2012, http://www.theguardian.com/science/grrlscientist/2012/nov/06/1

What was the article about?

This article was about the spotting of a mother and baby beaked whale on the New Zealand coast. This type of whale hasn't been seen in the past 140 years and the only thing scientists know about it is from what they examined from DNA in bone remains on beaches. It is the rarest whale on earth, living in the South Pacific Ocean, the 14% of earth that remains almost unexplored. The two-spaded beaked whale, or *Mesoplodon traversii*, is in the taxonomic family of Ziphiidae, along with 21 other types of whales. These 2 whales were the first full specimen of their kind to ever be seen. Right away, the scientists took pictures, measured, and examined the whales on the beach, then took them back to the laboratory for DNA examination. They were excited to have an opportunity like this and had to take in as much information as possible, being that they may never see another one of the beaked whales in their lifetimes. They then sent the corpses of the whales to the museum in New Zealand for more examination and possibly exhibits in the future.

Why were you interested in looking at this article? What stood out to you?

I was interested in looking at this article because it's not often that we discover something new on earth because so much of it has already been explored. For me, to find out there's a whole 14% of earth left to discover and explore is fascinating because we never know what could be there. Finding the beaked whale shows that humans don't know everything yet and we are always looking to learn more.

How did this article increase your knowledge of science issues?

This article demonstrated to me how specific the taxonomic levels become and that the some branches contain so little that it's difficult to keep dividing the species into even smaller categories. It also shows me how important the specific characteristics of each level are because it would be difficult to identify an animal if all the characteristics were vague and unclear.