FYS 18: Ten Ways to Know Nature
Lori Lombardo and Jackie Cirincione

Podcast Transcript for “Consumerism” Chapter

**BRINGING SCIENCE DOWN TO EARTH**

*Play the sounds of a science lab*

Jackie: Lori, I don’t understand this…

Lori: What? What don’t you understand?

Jackie: How did we get here?

Lori: Well we left Kamine and then we walked through the doors of Kunkle-

Jackie- Well obviously, I know that! Not how did we physically get here but…

Lori- I understand what you are asking. How did we get here as in how do we know what we know today about nature. How did we come this far. To answer your question, the answer is science. To understand how we have come this far learning about nature through science I think I should explain to you a little bit of the history of science. So Copernicus…

Jackie- I remember now!

*Sounds will play (She blinded me with Science by Thomas Dolby)*

Jackie- I am Jackie Cirincione,

Lori- I am Lori Lombardo.

Jackie and Lori- And we are bringing science down to earth!

*Music (Bill Nye Science Guy Theme Song and She blinded me with Science by Thomas Dolby)*

Lori- Like art, science is a means of expression, but an expression of curiosity.

Jackie- That is so true. Science is much more empirical then art and art is more biased.

Lori- We use science as a way to define and understand what something is by taking it apart and analyzing it.” It is more of a worldview, an attempt to understand as much as possible.
Jackie- Scientists make observations from which they develop and create into theories, as they are in search of a way to understand the world.

Lori – And in today’s society we use science as a way to challenge each other’s ideas, leading to advancement. We use science as a means to prove a given problem via method based and quantitative facts and also observations.

(The Sounds of Science by the Beastie Boys)

Jackie- Guess what!

Lori- What?

Jackie- It was such a beautiful day outside today, so I decided I would go out on the quad and I surveyed some students here at Lafayette College. I asked them what they thought science meant.

Play She Blinded me with Science by Thomas Dolby

Play the recordings of the words:
• Curiosity
• Theories
• Observations
• Facts
• Progress
• Challenge
• Nature

She Blinded me with Science by Thomas Dolby

Lori- Those words all really sound like science to me. We wouldn’t have science if it weren’t for curiosity after all. And it’s based on observations. It even challenges common ideas that lead to progress, leading to the creation of new facts, knowledge and theories. But nature, nature is one of the best ways. After all we are talking about knowing nature through science.

Jackie- I still do not quite understand though how nature fits into this.

Lori- Well actually it does. Nature and science are very connected to one another. If you look back to the scientific revolution you would see the first group of scientist emerged, well actually they weren’t yet known as scientists, they were known as natural philosophers. They were working to understand God’s work…. Nature!

Jackie- Oh all right. I know you started to explain Copernicus before, but I’m still a little confused how he fits in, and how about other scientists like Kepler?
Lori- Copernicus and Kepler were focused on how we, earth, fit in among the solar system. Science stared out really big and eventually they brought it down to earth. Scientists study how organisms interact, work, how everything fits together in an ecosystem and even to the smallest of things like DNA in the human body and atoms.

Jackie- Oh you know who I was thinking we should go talk to?

Lori- Who?

Jackie- I was thinking Professor Reynolds, out biology professor.

Lori- Yes! That would be an excellent idea

Jackie- She has a PhD from Carnegie Melon University, and does a lot of work in the labs here at Lafayette and elsewhere, specifically she works with fruit flies. Maybe she could help us understand this whole science and nature situation and help explain to us how they work together in today’s society.

Lori- Definitely, lets go visit her now.

_Play She Blinded me with Science by Thomas Dolby_

_Sounds of knocking at the door sound_

Jackie- Hi Professor Reynolds!

_Door Closes, sounds of a lab plays_

Lori- We had a few questions we wanted to ask you.

Jackie- So you how do you think science is related to nature?

Professor Reynolds- One gets into science because of an interest in nature. I think that as a child we have some interest in the natural world and for some people that is observing the natural world, which is kind of science.

Jackie- Okay so science develops out of observing nature and drawing conclusions from what was observed.

Lori- Scientists are really curious in finding out the logistics of how the natural world works and functions.

Jackie- And finding connections between the different levels found within nature.

Lori- Do you mean like how something as tiny as DNA can effect, lets say someone’s height?
Jackie- Yeah exactly, and that is just one of the many examples. Okay Lori, what is the next question?

Lori- How do you know nature through your research?

Professor Reynolds- I like to understand how things work and so I started out by trying to take a part little things with science like bacteria and understand how they work. But then somewhere along the way I got interested in finding out how the brain works and how the mind works. It is really the most complicated machine you could imagine, right? That is how I got into studying the brain, because I think that our brain is how we interact with nature. It is how we interpret the world and I think that is for me, kind of is nature. So that is how I got into and think about it. One of the things I really like about nature is that there are patterns at different scales of nature. So you can look at molecules and see the same patterns in larger structures all the way up to physical things galaxies and stuff like that.

Lori and Jackie- Thank you Professor Reynolds!

Lori- See you in class tomorrow.

Door closes

*Play She blinded me with Science by Thomas Dolby, The Sounds of Science by Beastie Boys*

*Jackie Trips...*

Jackie- Ow!

Lori- Oh my gosh are you okay?

Jackie- Yeah I’m fine … who put that there?

Lori- I’m not sure who put that rock there, but I bet I could tell you what kind of rock it is.

Jackie- Really? What type of rock do you think it is?

Lori- I bet you it’s Eastonite. Eastonite Rock was discovered in 1925 by A.N. Winchell in Easton. It is a type of biotite mica.

Jackie- How can you tell it is Eastonite?
Lori- Well first of all its green, you know any other green rocks? It is shiny and pearly, and plus its also only found in Easton. Maybe it was uprooted and made its way up here because of all the construction going on.

Jackie- You are right, I do not know any other green rocks! And of course you would know that. Thank you science

*Play She Blinded me with Science by Thomas Dolby and The Sounds of Science by the Beastie Boys*

Jackie and Lori- Thanks for listening!

*Play She Blinded me with Science by Thomas Dolby and The Sounds of Science by the Beastie Boys*