**SCI 1003 Assignment due on 09/22/22**

Read Carl Sagan’s essay *Can We Know the Universe* and answer the following

1a) In the paragraph at the top of page 2, how does Sagan describe the scientific process (often called the ‘scientific method’; your instructor’s term is ‘doing science’)?

He describes the scientific method as “If you spend any time spinning hypotheses, checking to see whether they make sense, whether they conform to what else we know, thinking of tests you can pose to substantiate or deflate your hypotheses, you will find yourself doing science

1b) How is this description different from what you may have learned before?

While its largely the same to what I’ve learned the main difference is that Sagan proposes that tests can also be used to deflate your hypothesis as well as just substantiating it

2) On the last paragraph of page 4, Sagan claims that prohibitions on nature make

the universe knowable.

a) What have we been calling these prohibitions in this class?

Proving a Negative Fallacy

b) Discuss how these prohibitions on nature make it possible for us to understand the universe.

Prohibitions can allow us to focus on the things we can do while ignoring the things we cannot do. We cannot measure darkness for example but we can get similar results by testing the amount of light or lack of in a certain place

3) Could humans have survived an environment in nature did not have predictable patterns? Explain why/why not.

Probably not, While some things are somewhat unpredictable, like predator hunting grounds. Humanity has survived by keeping next to certain geological locations with predictable weather conditions that they can pass down from generation to generation.

4) Do you agree with Sagan that a universe in which everything was known would be dull and static? Why or why not?

Yes, if everything was known the world would not change or any interesting discoveries. Such a world would be like living the same thing over and over day after day but nothing really changes.

5) Sagan claims that ‘science is a way of thinking much more than it is a body of knowledge’. Reflect on this statement before answering the following: How do people learn how to think ‘scientifically’?

People must be willing to reject their dogmas and accept a stance of questioning the world around them as best as they can. Everyone will have beliefs but the ability to think outside of a set belief and questioning the world is the best way to attaining.