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Global Warming is a Scientific Claim

Determining whether or not a claim is scientific can sometimes prove a difficult task. Luckily, there are specific criteria that can aid in easily distinguishing genuine scientific claims from non-scientific claims. The six criterion or "key features" of genuine science are classified as empirical falsifiability, testability, empirical research, peer review, repetition and alternative hypothesis. A popular contention that best illustrates these components of genuine science is global warming. Because the idea of global warming is comprised of these the six key features, it is most accurately classified as a scientific claim.

Before supporting the claim that global warming is scientific, it is first necessary to describe and explain each of the key features into further detail. The first feature, "empirical falsifiability," is the idea that a claim can be proven false by either an observation or a physical experiment. For example, the claim that "space aliens exist" is not falsifiable because there will never be a way to examine every inch of the universe in order deem the claim false. One could examine the entire planet, for example, and even if they found no evidence of aliens, there would still be a chance that the aliens exist on the planet Neptune – a planet we are not able to examine. "Testability," the second feature, refers to the ability to test the actual conditions of a claim. If a claim cannot be observed or experimented on, then it does not possess the testability feature of a scientific claim and is therefore non-scientific. The third feature, "empirical research," is very similar to testability. Empirical research is the actual testing of a claim. This research can be done in existing actual conditions of the real world, or within controlled experiments, but the claim must be testable by one of these methods in order to be classified as scientific. The fourth key feature, "peer review," is the process by which other people are able to test the claim (again, by either taking advantage of existing conditions or by testing in controlled environments). The fifth key feature, "repetition," is the concept of repeating the experiments performed. The idea is that, the more a claim is tested and returns the same results, the more reliable the claim becomes. The last key feature, labeled as "alternative hypothesis," is the idea that the scientific community can continually explore alternative scientific explanations for a given claim. Similar to alternative hypothesizes, the more often alternative hypothesizes are tested and do not support the claim, the more supported the given claim becomes.

Because the issue of global warming can be proven false by research and testing, its evidence is published and can be tested repeatedly by the scientific community, and alternative hypotheses to its claim are available for anyone to investigate, global warming fits into the definition of what "genuine science" is. Records of Earth's past temperatures, our ability to measure the chemical levels in the atmosphere, the thickness of the O-Zone layer along with many other variables are all testable and available for anyone to repeat. While it is true that some scientists allow their biases to exaggerate these measurements and observations, the fact still remains that the case for global warming meets all six key features of genuine science, and therefore remains a scientific claim.