**TOPIC: The United States should adopt the metric system**

**PRO**

**1 PRO: Case and Contentions** (2nd and 3rd Pro speakers defend these arguments)

**My partner and I support the resolution: The United States should adopt the metric system.**

**Contention 1: Universal**

 **World is Bad: The US is alone in not using the metric system**

* The US is one of the only countries in the world that doesn’t use the metric system, and the only developed country that doesn’t.
* According to the Globe, instead of the metric system, the US uses the customary system which it adopted from Great Britain after independence.
* But, news editor Susannah Locke reports that the US customary system is a strange and confusing system. We use feet, miles, pounds, and gallons. None of these units of measurement have any logical relationship with each other. For example, there’s 12 inches in a foot, 3 feet in a yard, and 1760 yards in a mile.

**Topic is Good: If the US adopts the metric system it will make it universally used**

* + If the US moved away from the customary system and adopted the metric system, it would make a universally used system of measurement around the world. That means everyone on Earth would understand distance, weight, and temperature the same way and be able to communicate about that with each other.
	+ The metric system is also the better measurement system. It was intentionally made to simple and logical and is therefore easier to use. Vox News explains that all you need to do is multiply or divide by some factor of 10. For example, there is 10 millimeters in a centimeter, 100 centimeters in a meter, and 1000 meters in a kilometer. Additionally, water freezes at 0 degrees Celsius and boils at 100 degrees Celsius.
	+ The metric system is the international language for science, medicine, and economic trading. According to Ken Alder, a professor of history at Northwestern University, “the way we choose to measure things is boring, but it’s also super important because it structures the way we live and interact with each other.”

**Impact: Universalizing a measurement system decreases errors during conversion**

* + Trying to convert units from the customary system to the metric system, or the other way around, is complicated which makes it likely that people mess up and make incorrect conversions.
	+ Dr. David Schuster states that “because the metric system allows for easier conversions, it is more likely for people using the customary system to make a mistake than people using the metric system.”
	+ Errors in conversions can have big consequences:
		- Colorado State University reports that a Boeing airplane ran out of fuel in the middle of a flight and crashed into the ocean because of an incorrect calculation of how much fuel was needed due to a conversion error.
		- According to the ECRI Institute, medical errors due to mistakes in converting metric and customary units is the 7th highest concern for the safety of patients. That’s why medical organizations have urged hospitals and companies to only use the metric system to avoid these kinds of errors. For example, every year around 4000 kids end up in the hospital because they were given the incorrect dose of medicine from their parents or caregivers.
		- Lastly, the Los Angeles Times reported that in 1999, NASA destroyed on of its satellites orbiting Mars due to a measurement conversion mistake. The mistake was caused by a communication error between the satellite’s computer software which used the metric system and the Earth-based US ground crew who used the American customary measurement system. The destruction of the Mars Orbiter satellite cost NASA $125 million.

**Contention 2: Simplified Business**

**World is Bad: Businesses in the US have to advertise in both measurement systems**

* + Currently, businesses in the US have to label their products they sell with both the American customary measurement and the metric system measurement. That’s because if they want to sell their product outside of the US, it needs to be in metric form.
	+ The US is the last remaining advanced country that hasn’t adopted the metric system. America’s stance is causing unnecessary isolation from the rest of the world’s standards. Vox News reports that it is a roadblock to trade internationally and puts our country at an economic disadvantage.

**Topic is Good: If the US adopts the metric system, they only have to use one system**

* + Adopting the metric system would mean companies could just use the metric system only, and not make two different labels for the different measurement systems.
	+ According to Susannah Locke, the metric system makes calculations easier for companies. This could be to make a solution in a laboratory, calculate the area size of a parking lot, or figuring out how many pills to give someone with a certain body weight. It also makes it faster and easier to double-check calculations that a computer generates.

**Impact: Adopting metric system simplifies things for companies and saves money**

* + Not using the metric system makes communication across borders more difficult. It’s not just annoying, it also adds real costs to businesses. Vox News states that many US companies need to make two different kinds of products for just one item – one for the US and one for everywhere else in the world. Companies outside of the US also have to modify their products only the US measurement system or decide that it’s not worth the bother and not sell them here.

**2 PRO: Responses to CON Arguments**

Answering: Costs Expensive

* There are strong economic benefits to adopting the metric system. Great Britain demonstrated this, because in the 1970’s they abandoned the customary system and adopted the metric system. According to TIME magazine, they did that because it was the only way to gain access to markets in Europe. Most of the world adopted metric to not fall behind in the global economy. A global uniform system of measurement helps cross-border trade and investment. So, if the US adopted the metric system, it would help our economy too.
* Even if it costs a lot of money to transition away from the customary system to the metric system, the economic benefits for our country and businesses will make up for it in the long term. High costs is only a short term impact, but the benefits of the metric system will be forever.

Answering: Learning

* Having everyone learn the metric system and get used to it will take time and won’t be immediately. For example, when laws change in the United States, people have to learn the new laws even though its different than before. That’s pretty much the same thing as switching to the metric system.
* To help older people who won’t be learning the metric system in school if the US adopted the metric system, the government and businesses could post conversion tables on products and on apps, according to Codebook. For example, if someone was purchasing gas in liters after the Us adopted the metric system, they could use an app or look at a chart on the gas pump and see how many gallons that purchase would be. Tat slowly teaches older people about the metric system too so they learn as well.

**CON**

**1 CON: Case and Contentions** (2nd and 3rd Con speakers defend these arguments)

**My partner and I are against the resolution: The United States should adopt the metric system.**

**Contention 1: Costs Expensive**

**World is Good: The US already has a well-established measurement system**

* + The US Congress adopted the customary system of measurement back in 1790 and it has been used ever since, over 200 years. According to Britannica, the US decided on the customary system over the metric system because of our shared history with Great Britain, and the metric system was brand new when the US decided.
	+ Reader’s Digest reports that keeping the customary system of measurement has been important for the US throughout history. When the Industrial Revolution began in the US, expensive manufacturing plants became the biggest source of American jobs and products bought and sold. Because we used the customary system, all the machinery in the factories, workers, and products were made to use those units.
	+ There have been times in the past when the US considered transitioning to the metric system. But businesses and the American people rejected the idea because of the time-consuming and expensive hassle of changing everything in the country.

**Topic is Bad: Changing to the metric system will require changing everything**

* + Think of everything in the country that is measured. The food we eat, the speed signs on roads, and everything companies make and sell. It’s so much stuff that would all have to be changed if the US adopted the metric system.
	+ An article from Science-ing states that if the US changed to the metric system, it would mean that everything would have to change measurements. This would be all packaged products such as food, but would also impact housing and property sizes, as well as mileage and speed signs on American roads. The far-reaching impacts of the costs would even include car manufacturing as the car industry switched from miles per hour to kilometers per hour.

**Impact: Making changes to use metric system will cost a lot of money**

* + Switching everything in the country from the customary measurement system to the metric system would require too much time and money. According to a report from CNN, it would cost billions of dollars and would have little overall benefit to the US.
	+ In 1975, President Gerald Ford tried to get the US to adopt the metric system. But everyday Americans rejected the idea as well as worker’s unions. They were worried that switching to the metric system would encourage companies to ship jobs offshore to other countries, because they know the metric system better. That would mean people would lose their jobs in the US, which would increase poverty.

**Contention 2: Learning**

**World is Good: People in the US are already familiar with our measurement system**

* Almost everyone in the US is familiar with the customary system of measurement. We refer to temperature in Fahrenheit, weight in ounces and pounds, and distance in feet and miles. We’ve been used to this system since all of us were born, and our country has used it for over 200 years.
* According to the Smithsonian, the United States has struggled with the metric system. Even though parts of it are taught in schools, for science classes for example, most Americans don’t understand how metric units translate to customary units.

**Topic is Bad: Adopting the metric system means everyone not in school won’t understand**

* + If the United States adopted the metric system and everything changed to those units, everyone who is not currently in school would not understand the new system of measurement.
	+ According to the IFOD, switching to the metric system would be confusing and awkward for most people. When people think of their height as 5 feet and 9 inches, it would be confusing to think or say 175 centimeters. The same thing would happen with driving the speed limit, or what temperature it is outside, or how far away something is.

**Impact: Most people won’t understand the metric system which will have negative effects**

* Changing the system of measurement in the US would confuse most Americans who do not know how to use the metric system in every day life. Science-ing reports that every application, from measurements to temperature to weights requires a different conversion formula, Without a quick reference, the awkward transfer would complicate even the most simple of daily transactions, such as buying gas which would be measured in liters instead of gallons.
* Even though Americans are used to the customary system, they understand the basics of the metric system. According to TIME magazine, Americans buy soda’s at the store in one liter bottles and Americans who run a 5K know they are running 5 kilometers. In this way, just like knowing multiple languages is good, its good Americans know the basics of two measuring systems. Therefore, we should not abandon the customary system.

**2 CON: Responses to PRO Arguments**

Answering: Universal

* The metric system isn’t universally used around the world even if the United States adopted it. Burma, Liberia, and Myanmar also don’t use the metric system according to Linda Anderman, author of “More Than a Mile Behind.”
* According to Smithsonian magazine, abandoning the customary system for the metric system would mean the United States would be getting rid of something that has made us distinct and unique for over 200 years. Even if converting between metric and customary can be difficult, it is special that the United States doesn’t use the same system everyone else does.
* Computer programs are getting more and more advanced and can convert between customary and metric units for us to reduce the amount of mistakes in conversion.

Answering: Simplified Business

* If a business is benefited by using the metric system and the customary system, then they have already adopted the metric system and don’t need the US to do it.
* According to Vox News, businesses in the science and health care fields, energy, and even the military have adopted the metric system because it benefits them. They are doing perfectly fine using both the customary system and the metric system.
* Just because its valuable for some companies, doesn’t mean its valuable for all of them. We should let individual companies and businesses decide if they want to use the metric system too, and not have the government decide for everyone.