**Unit 01: is the Earth getting warmer?**

**Video 01**:

Hello, welcome to unit one, is the Earth getting warmer, in this video, we will ask the question, is the Earth getting warmer?  We will also discuss how scientists use evidence to answer this question. So, is the earth getting warmer?

It's a simple question to ask, but not a simple question to answer.  In fact, the question is so big, one person could never have enough information to answer it by themselves.

If you want to know if it is getting warmer all over the world, you need information from all over the world.

For example, one recent report on this question, by the American Meteorological Society or AMS, used the information of more than 450 scientists from 62 different countries. When scientists ask a question, they look for evidence; **evidence means the facts or signs that help prove something.** In other words, to show that it is true,at least as true as we can know now based on the science that we have now.

Some examples of the evidence the scientists study to answer, is the Earth getting warmer, are temperatures, how hot or cold it is in the air, the oceans, and on the land.

They also look at how many clouds are in the sky, how high or low the water in the ocean is. And how much of the earth is covered with snow.

We mentioned the AMS, the AMS is a group of scientists called meteorologist. Meteorologist study the weather and the earth's atmosphere, atmosphere means the gases or air around a planet.

What does the AMS say? Is the Earth getting warmer?

Yes, it is, these scientists say the Earth is getting warmer.

Well, isn't it true that the Earth has always had times where it became hotter,  and then different periods of time, when it became colder?

Is this warming, that we are experiencing now, part of a natural cycle?

Well, the Earth has switched, between periods of time where it was, either hotter, or colder.

This chart shows temperature changes around the world since the late 1800s.  This line 0, here, shows the normal temperature for the time of the year, anything below 0 is cooler for that time of year.

Everything above 0 is warmer for that time of year.

As we can see since the 1970s, temperatures around the world have continued to go higher and higher.

In fact, there is evidence that shows the earth is warming  ten times faster than it has in the past.

If things continue as they are now, scientist believe that the earth will continue warming 20 times faster than it has in the past.

So looking at all the evidence, we know the answer to the question, is the Earth getting warmer?

97% of all of the scientists who study climate change believe they  have evidence to prove the Earth is getting warmer. Examples like measuring temperatures, clouds, snow, and ocean levels.

They also believe there is evidence to prove that people are causing this warming.  Mostly by pollution from things like cars, factories, and electricity.

**In this video we answered the question, is the Earth getting warmer? Yes it is,**

We also discussed how scientists used evidence to answer this question.

In the rest of the unit we will look at an experiment that helps explain why the Earth is getting warmer.

We will also look at some of the English language skills that you will need to read and understand information written about scientific experiments.