## What's Happening to the Earth & What Can Be Done to Help

If you've ever glanced at news headlines or tuned into a political debate, chances are you've heard the term "climate change." Despite it being such a common topic, many people don't realize what it really is. Moreover, many people don't know what can be done to stop it and what they can do to help.

First and foremost, it's important to understand what climate change and global warming are. Climate change is a change in weather patterns, and global warming is an increase in the Earth's temperature. Both terms are used to describe the phenomenon, dated as early on as the 1800's, involving human activity increasing the temperature of the atmosphere and changing climate patterns.

The main cause of global warming is accredited to greenhouse gas emissions.

Greenhouse gasses include methane, water vapor, carbon dioxide, and others and come from natural occurrences such as volcanic eruptions, as well as human occurrences such as fossil fuel usage and agriculture. But what do the gasses do? The earth has a layer of these gasses surrounding it that traps heat into the atmosphere, keeping the earth warm. As human activity emits more and more of these gasses, the layer gets thicker and traps in more and more heat, resulting in the temperature rise.

Rising of temperature in the atmosphere is what causes climate change. The effects of climate change are diverse, yet all equally devastating. Previously predicted impacts are all

happening now: glaciers are melting, sea level is rising, and heat waves, droughts, and wildfires are occurring. As the temperature rises, climates all over the globe change in often detrimental ways.

There's no doubt that the effects of global warming are severe and irreversible. It's inevitable that the next generations will grow up in a very different world than the previous ones as the condition of the planet continues to deteriorate. Many natural resources are threatened by unstable climate conditions. Water, for example, is affected by droughts and floods. Droughts dry out natural freshwater sources, while severe flooding can contaminate or decrease the quality of them. Natural resources like these could be at stake when it comes to climate change. That's why global warming is an issue that matters; just imagine your children living in a world with none of the natural resources we take for granted every day!

With an understanding of what global warming is and how it's depleting the Earth, many people wonder what they can do to prevent it. Unfortunately, humans have already done so much to set climate change into action that there is no way to stop it from continuing to occur. However, there are things that individuals can do to contribute less to climate change.

One thing people can do to reduce their contribution to climate change is to reduce the burning of fossil fuels. Fossil fuels are one of the leading emitters of carbon dioxide, a greenhouse gas. Most cars run on fossil fuels, so choosing to drive a fuel efficient car is one simple way to reduce your carbon footprint. Other forms of transportation, such as trains and

carpooling, reduce your carbon footprint by transporting multiple people at once. Walking and biking are also great forms of transportation that use no fossil fuels.

Reducing energy usage is another great way to contribute less to greenhouse gas emissions. Energy is made in power plants, which emit huge amounts of carbon dioxide into the atmosphere. There are many ways to use less energy, such as switching to more energy efficient products. Looking for the EnergyStar® label on appliances is an easy way to reduce energy usage. Unplugging electronic items when not in use is another small and easy decision to make to reduce your carbon footprint. All of these decisions may seem small and insignificant, but the impact of reducing your direct contributions to climate change can make a difference. Understanding the impact of individual actions is what motivates people to take initiative.

Climate change has already taken a huge toll on the earth, and it's not even close to being done. The planet's condition continues to deteriorate every day. Despite the damage that's already been done, there are still things that can be done to reduce the daily greenhouse gas emissions. Although existing damage is irreversible and future damage is inevitable, all hope is not lost that, with the efforts, people can put into conserving the Earth, future generations will still get to enjoy the Earth as we know it.