

IT'S A HOT ISSUE

SCIENCE & TECH ACTIVITY 9

WORKSHEET

- ✓ Climate is the weather pattern of an area over a long period of time (like 30 years or more).
- ✓ Climate can change. When it does, we call it “climate change.” Changes in climate can be natural. Natural changes happen over a very long time (hundreds and hundreds of years). But changes in climate are more than simply weather changes. Climate affects the environment that people and wildlife (plants and animals) depend on. This means climate change is also about plants, animals, and all other living and nonliving things, such as soil, rocks, oceans and lakes.
- ✓ Climate change is only one part of a bigger environmental issue—GLOBAL WARMING. The phrase “global warming” refers to the documented historical warming of the earth’s surface based upon worldwide temperature records that have been maintained by humans since the 1880s. Global warming is the combined result of anthropogenic (human-caused) emissions of greenhouse gases and changes in solar irradiance (solar rays).
- ✓ Special gases in the earth’s atmosphere, called “greenhouse gases,” help make the earth warm enough for humans, animals, and plants to live. Electricity usage, cars and trucks, cutting down and burning trees, factory production, and many other things add extra greenhouse gases to the air, causing the earth’s temperature to rise.
- ✓ The reason climate change is such a big issue now is that things people have been doing for the last 100 years have been adding up and are changing the climate in a big way.
- ✓ Some scientists predict that the effects of global warming on the environment and on human life are numerous and serious. Some effects of recent climate change may already be occurring, such as rising sea levels, glacier retreat, Arctic shrinkage, and altered patterns of agriculture. Predictions for secondary and regional effects include:
 - » Extreme weather events (more violent storms and earthquakes)
 - » Severe flooding
 - » Expansion of tropical diseases
 - » Devastation to various ecosystems
 - » Scarce drinking water
 - » Drastic economic impact (higher food prices worldwide)

What can YOU do to “cool things down”... to help reduce global warming and have a positive impact on the world?