Name _____ Period _____ Date_____

All About…Greenhouse Gases

Greenhouse gases trap heat in the atmosphere, which makes the Earth warmer. The following gases are considered to be greenhouse gases:

Greenhouse Gas	Where it Comes From	How Long it Remains in the Atmosphere
Carbon dioxide – 54.7%	Burning fossil fuels Cutting down/burning trees Industrial & manufacturing processes	Anywhere from 50 to thousands of years
Methane – 30%	Raising livestock Landfills Transporting natural gas Mining coal	12 years *This gas traps 25 times more heat than the same amount of CO_2
Nitrous oxide – 4.9%	Burning fossil fuels Manufacturing processes Certain farming practices (such as extra fertilizer)	114 years *This gas traps 298 times more heat than the same amount of CO_2
Fluorinated gases – 0.6%	Leaking coolants (from refrigerators, freezers, air conditioners) Some manufacturing processes (ex. making computer chips)	Dependent on the gas (though some can remain for hundreds of years) *Some gases trap up to 23,000 times more heat than the same amount of CO_2
CFCs (Chlorofluorocarbons)	Cooling agents Cleaning solvents	CFCs have a long-lasting effect. Their presence in the atmosphere has largely decreased since being banned in many countries.

Did you know…water vapor is also a greenhouse gas! It occurs naturally in the atmosphere and is the largest contributor to the natural greenhouse effect. As temperatures on the ground rise, water evaporates from rivers, oceans, etc. and becomes water vapor in our atmosphere.