

Pollutants in Air 2

Before you answer the puzzles below fill in the table of pollutants using:

	reflect sunlight in the atmosphere	poisoning	carbon dioxide	NO _x	CO ₂
Pollutant	Problem caused	Details	When its formed	Formula	
nitrogen oxides	acid rain	dissolves in water to form acid	nitrogen combines with oxygen at high temperatures		
	climate change	is a greenhouse gas	when any fuel containing carbon is burnt		
sulfur dioxide	acid rain	dissolves in water to form acid	when fuel burnt contains sulfur impurities	SO ₂	
particulates	global dimming		by incomplete combustion of the fuel	C _x H _y	
carbon monoxide		poisons by stopping oxygen transport	by incomplete combustion of the fuel	CO	

Gridlock 1

Each row, column and 2 x 2 box contains information about carbon dioxide, sulfur dioxide, particulates and carbon monoxide. Use your problem solving skills and the answers in the table above to fill in the blank boxes.

pollutant		problem caused	
carbon dioxide			poisoning
	carbon monoxide	climate change	
	global dimming		
		when fuel burnt contains sulfur impurities	
Problem caused		when its formed	

gridlocks – can you unlock the grid?

Gridlock 2

Contains the pollutants: sulfur dioxide, nitrogen oxides, particulates and carbon monoxide

pollutant		problem caused	
sulfur dioxide			acid rain
		by incomplete combustion of the fuel	by incomplete combustion of the fuel
C_xH_y			
formula		when its formed	

Gridlock 3

There are 2 pollutants which cause acid rain: this puzzle contains nitrogen oxides but not sulfur dioxide.

pollutant		problem caused	
	carbon dioxide		poisoning
			climate change
dissolves in water to form acid			C_xH_y
details		formula	