



Patterns of Particle Pollution and Ozone

Test this hypothesis using data from the Midwest maps on the AIRNow web site or by looking at data given to you by your teacher:

“On a day when the AQI is red, the patterns throughout the day for the particle levels and the ozone levels are the same.”

On EPA’s AIRNow web site, look for a day when the AQI is red, indicating a particle pollution episode (see February 1-5, 2005, for example.) Using the animation for that day, put a dot in each color box that indicates the AQI for each hour. Follow an ozone episode in the same way (see June 24-25, 2003, for example.) Note that there are ozone measurements only from 8:00 a.m. to 10:00 p.m.

Date_____

Date_____

Location_____

Location_____

Type of pollutant: **Particles**

Type of pollutant: **Ozone**

EXAMPLES

Time	Green	Yellow	Orange	Red
1 a.m.			x	
2			x	
3			x	
4			x	
5			x	
6			x	
7			x	
8			x	
9			x	
10			x	
11				x
Noon				x
1 p.m.				x
2				x
3				x
4				x
5				x
6				x
7				x
8				x
9				x
10				x
11				x
12				x

EXAMPLES

Time	Green	Yellow	Orange	Red
1 a.m.				
2				
3				
4				
5				
6				
7				
8	x			
9	x			
10	x			
11		x		
Noon			x	
1 p.m.				x
2				x
3				x
4				x
5				x
6				x
7			x	
8		x		
9		x		
10	x			
11				
12				

- Describe the pattern throughout the day for particles and ozone.

Particle counts remained consistently high, increasing as the day progressed. Ozone levels began at low levels, then increased in the afternoon and returned to green by 10:00 p.m.

- What do the data suggest about your hypothesis? Explain your answer.

The data do not support the hypothesis. The patterns are different.