

Environmental Chemistry Project Living in Our Ocean of Air Task 4

Purpose: to apply basic concepts of chemistry to chemical interactions in the atmosphere.

Procedure: You will work as part of a research group to complete the following tasks.

Task	Resources	Timeframe
Identify natural atmospheric factors and human activities that affect air quality.	Smog City Internet Model Articles from the Record	1 class period
Select a research topic for study (see topic list) and conduct secondary research about the topic	Living in Our Ocean of Air Web pages	2 class periods
Design a study that could be conducted by your group in Wyckoff to collect primary data	Your knowledge of scientific method	2 class periods
Prepare a presentation of your research proposal for the class using Power Point	Computer, video camera, still camera	2 class periods
Present your proposal to the class and submit a written proposal to the teacher	Computer	10 minutes

Topics for Research

Ground level ozone	Table 1
Particulate matter	Table 2
Sulfur dioxide	Table 3
Nitrogen dioxide	Table 4
Carbon monoxide	Table 5
Lead	Table 6
Personal Greenhouse Gas Calculator	Table 7

Ideas for Study Proposals

Ambient air testing
Ambient air testing
Ambient air testing
Ambient air testing
Ambient air testing
Ambient air testing
Design and conduct a survey

What needs to be in your proposal presentation?

1. What is the problem?
2. Why is this a problem?
3. Who or what is causing the problem?
4. When does the problem occur?
5. Where does the problem occur?
6. How will you investigate the problem in Wyckoff?
7. What do you expect to discover?

Maximum number of slides in your presentation: 8 including the title slide with group member names Use bulleted lists, pictures, graphs, maps, diagrams, etc. to make your point.

Scoring of this Project

Written Research Proposal	25 points
Power Points Proposal Presentation	25 points
Total Score possible	50 points

An additional 50 points will be awarded for individual essays on Clean Air Technologies from Dimming the Sun packet.

Organizing the Presentation

Slide 1	Title and Group Names	
Slide 2	What is the problem?	
Slide 3	Why is this a problem?	
Slide 4	Who or what is causing the problem?	
Slide 5	When does the problem occur?	
Slide 6	Where does the problem occur?	
Slide 7	How will you investigate the problem in Wyckoff?	
Slide 8	What do you expect to discover?	

Make source cards and speech cards. Your slides should have just a few bulleted points, keywords, or illustrations that sell the message.