

AP Environmental Science – Ms Kowalski

Welcome to AP Environmental Science (APES)! I am looking forward to an exciting year (after we all relax for a bit over the summer). In order to get you ready for September's start, I am providing you with a summer assignment. It would not be wise to start this assignment the week before school.



It is due the first day of school!

Enjoy your summer!

The major topics of the class are:

Energy Systems and Resources – atmosphere, soil, groundwater, and geology

The Living World – ecosystems and cycles

Populations – demographics, dynamics and growth

Land and Water Use – agriculture, forestry, mining, fishing and global economics

Energy Resources and Consumption – fossil fuels, nuclear energy, conservation and consumption

Pollution – types of pollution and its impact, waste disposal

Global Change – ozone, global warming, loss of biodiversity

1) Save 2 clear two-liter soda bottles with tops

- a) Bring them in by the end of the first week of school

2) Watch the movie/video “Home”

- a) It is on Youtube.com
 - i) <http://www.youtube.com/watch?v=jqxENMKaeCU&feature=watch-now-button&wide=1> OR
 - ii) <http://www.homethemovie.org/>

3) Answer the Movie Questions

- a) Questions found below

4) Essay response

- a) The movie ends with the statement “It’s up to us to write what happens next.”
- b) Please type and double space a 500 word response using an appropriate font size and style.

5) Environmental Laws & Treaties Chart

- a) Similar to the one I created for the list of laws and treaties
- b) See below

6) Format

- a) Movie Questions
 - i) Print out questions and handwrite responses OR
 - ii) Type responses and then print out
 - (1) Type the answers in a different font color or style so they can be identified easily
- b) Essay Response
 - i) 500 words
 - ii) Typed
 - iii) Double spaced
 - iv) Appropriate font size and style

7) Due Date

- a) Movie Questions, Essay Response, and Environmental Laws & Treaties Chart
 - i) First day of class
- b) Two-liter Bottles
 - i) By end of first week of school

8) Grading

- a) Movie Questions, Essay Response, and Environmental Laws & Treaties Chart
 - i) All of the grades will be incorporated into the first marking period average
- b) Environmental Laws & Treaties
 - i) quiz on the information by end of 2nd week of school

9) Other

- a) Should you have any questions, please email me at: kowalskih@optonline.net.
 - i) If you do not receive a response from me, then I did NOT get your email!
 - ii) Please allow a few days for a response as I will be out of town periodically.

Name _____

Home Video Questions:

1. What happened to the carbon that poisoned the atmosphere?
2. What two elements are inseparable? _____
3. What percent of oxygen comes from ocean algae? _____
4. Coral is the mutualistic relationship between what two organisms? _____
5. It took more than _____ years for it to make trees.
6. The majority of mankind lives _____.
7. Today, over _____ of the world's _____ inhabitant live in cities.
8. In the United States, only _____ farmers are left.
9. What is the grain grown in the U.S. transformed into?
10. Agriculture accounts for _____% of humanity's water consumption.
11. The result is that it takes _____ of water to produce one kilogram of potatoes, _____ for one kilo of rice and _____ for one kilo of beef.
12. What is the symbol of comfort and progress? _____
13. _____ percent of trade goes by sea.
14. _____ of fishing grounds are exhausted, depleted or in danger of being so. Most large fish have been fished out of existence because they have no time to _____. Fish is the staple diet of _____ in _____ humans.
15. Over _____ people almost a _____ of the world's population-still depend on charcoal for cooking and heating.
16. In _____ years, the gap between rich and poor has grown wider than ever. Today, _____ of the world's wealth is in the hands of the richest _____ percent of the population.

17. One human being in _____ now lives in a precarious, unhealthy, overpopulated environment, without access to daily necessities such as water, sanitation or electricity. Hunger is spreading once more. It affects nearly _____ people.
18. By _____, a _____ of the Earth's species could be threatened with extinction.
19. Around the North Pole, the ice cap has lost _____% of its surface area in _____ years.
20. Greenland's ice contains _____% of the freshwater of the whole planet. When it melts, sea levels will rise by nearly _____ meters.
21. Sea levels are rising. Water expanding as it gets warmer caused, in the 20th century alone, a rise of _____ centimeters.
22. _____ of the _____ biggest cities stand on a coastline or river estuary. As the seas rise, salt will invade the water table, depriving inhabitants of drinking water.
23. The world spends _____ times more on military expenditures than on aid to developing countries.
24. _____ people a day die because of dirty drinking water.
25. _____ people have no access to safe drinking water.
26. Nearly _____ people are going hungry.
27. Over _____% of grain traded around the world is used for animal feed or bio fuels.
28. Every year, _____ hectares of forest disappear.
29. One animal in _____, one bird in _____, one amphibian in _____, are threatened with extinction.
30. Species are dying out at a rhythm _____ times faster than the natural rate.
31. _____ of fishing grounds are exhausted, depleted or in dangerous decline.
32. The average temperature of the last _____ years have been the highest ever recorded.
33. The ice cap is _____% thinner than _____ years ago.
34. There may be at least _____ climate refugees by 2050.

35. In Bangladesh, a man thought the unthinkable and founded a bank that lends only to the poor. In barely _____ years, it has changed the lives of _____ people around the world.

36. Gabon is one of the world's leading producers of wood. What is selective logging?

37. I have seen houses producing their own energy. _____ people live in the world's first ever eco-friendly district in _____.

38. _____ % of the energy we consume comes from fossil energy sources. Every week, _____ new coal-fired generating plants are built in _____ alone.

39. _____, _____, _____ and _____ are the biggest investors in renewable energy. They have already created over _____ jobs.

40. In _____ hour, the sun gives the Earth the same amount of energy as that consumed by all humanity in _____ year. As long as the Earth exists, the sun's energy will be inexhaustible.

The movie ends with the statement "It's up to us to write what happens next." Please **type** and **double space** a **500 word response using an appropriate font size and style.**

Environmental Laws and Treaties

Assignment: Please create a chart similar to the one below for each of the following pieces of legislation or treaties. Please put the laws in **chronological order!!** There will be a **quiz** on these laws by the end of the second week of school.

Name of Law/Treaty	Abbreviation	Year Initially Passed	National or International	Brief Summary of the Law	Part of the Earth that's impacted
Clean Air Act	CAA	2050	National	A b c d e f g h I j k l m n o p q u s t u v w x y z – now I know my ABC's next time won't you sing with me....	Atmosphere

Clean Air Act
Food, Drug, and Cosmetics
Acts

Occupational Safety and
Health Act

Clean Water Act
Hardrock Mining and
Reclamation

Ocean Dumping Ban Act

Comprehensive
Environmental Response
Compensation and Liability
Act

Kyoto Protocol

Oil Pollution Act

Consumer Product Safety Act

Law of the Sea Convention

Oil Spill Prevention and
Liability Act

Convention on International
Trade in Endangered Species

Marine Mammal Protection
Act

Pollution Prevention Act
Emergency Planning &
Community Right-to-Know
Act

Marine Plastic Pollution
Research and Control Act

Resource Conservation and
Recovery Act

Endangered Species Act

Migratory Bird Hunting
Stamp Act

Safe Drinking Water Act

Energy Policy Act

Montreal Protocol

Soil and Water Conservation
Act

Federal Food, Drug and
Cosmetic Act

National Energy Act

Solid Waste Disposal Act

Federal Insecticide, Fungicide
and Rodenticide Act

National Environmental
Policy Act
Surface Mining Control and
Reclamation Act

Federal Water Pollution
Control Act

National Park Act

Toxic Substance Control Act

Fish and Wildlife
Conservation Act

National Wildlife Refuge
System Act

Wild and Scenic Rivers Act

Food Quality Protection Act

Nuclear Waste Policy Act

Wilderness Act

Safe Drinking Water Act

