

AP ENVIRONMENTAL SCIENCE

SUMMER ASSIGNMENT 2011

1. Watch the video “[Home](#)” on Youtube.com (choose the English version from the list on the right hand side of the screen) and answer the questions on the worksheet (attached). When finished save it by adding your last name to the title and send the document to weinbergerj@fultonschools.org It is important that you send to weinbergerj not just weinberger as this mistake will send your work to the wrong teacher.

2. Fill in a chart similar to the one below for each of the following pieces of legislation or treaties. There will be a quiz on these laws the second week of school.

Name	Function of Legislation or Treaty	Unit
Clean Air Act	Established primary and secondary air quality standards. Required states to develop implementation plans. Sets limits and goals to reduce mobile source air pollution and ambient air quality standards.	Air

Clean Air Act	Food, Drug, and Cosmetics Acts	Occupational Safety and Health Act
Clean Water Acts	Hardrock Mining and Reclamation	Ocean Dumping Ban Act
Comprehensive Environmental Response, Compensation 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 Substances 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

3. Make sure to visit the website at <http://weinberger-apes.blogspot.com>, but note that it may be changing through the summer.

Home Documentary:

Name _____

Save as Home_Your Last name and email to weinbergerj@fultonschools.org

1. What does the following term mean, *Homo sapiens*?
2. When did life originate on Earth?
3. When did homo sapiens originate?
4. What was our planet like originally (atmosphere/geosphere)?
5. Why was it important for the Earth to be at the right distance from the sun-not too far, not too near?
6. How is the water cycle described?
7. How did the ocean get salty?
8. What is shared by every life-form on our planet?
9. What provides the Earth's red, black, blue, and yellow?
10. Where did life first spark into being?
11. What fed off the Earth's heat?
12. What organism were the first that had the capacity to turn to the sun to capture its energy?
13. How did these organisms change the destiny of our planet?
14. What happened to the carbon that poisoned the atmosphere?
15. How much time can be read in the walls of Colorado's Grand Canyon?
16. How did the ocean organisms grow their shells?
17. What happened to the shells of the microorganisms that died?
18. What did plant life finally do?
19. What is the Earth's water cycle?
20. Why is water called one of the most unstable molecules of all?
21. What happens when water freezes?
22. What is the engine of life?
23. Why are water and air inseparable?
24. What are the green organisms that supply _____% of the oxygen?
25. Coral is the mutualistic relationship between what two organisms?
26. Where is and how big is the Great Barrier Reef?
27. The Great Barrier Reef has _____ species of fish, _____ species of mollusks and _____ species of coral.
28. It took more than _____ years for it to make trees. What is it?
29. In a chain of species, why are trees a pinnacle species?
30. Trees have inherited from _____ the power to capture light's energy.
31. Why are trees so important for the formation of soils?
32. Soils are the factory of _____.
33. How is soil a world of incessant activity?
34. Why is it said that the Earth is a miracle?
35. What is meant by the phrase that "Every species has a role to play"?
36. Humans settled down after _____ nomadic years.
37. The _____ was, an invention that opened up new horizons and turned humans into navigators.
38. The majority of mankind lives on the _____.
39. The first _____ grew up less than 6000 years ago.
40. One in _____ people still use only the strength of their bodies for farming.
41. _____ billion human beings is more than the combined population of all the wealthy nations.
42. _____ are a family's only asset, as long as every extra pair of hands is a necessary contribution to its subsistence.
43. _____ feeds people, clothes them and provides for their daily needs. Everything comes from the Earth.
44. How did towns change humanity's nature as well as its destiny?
45. The physical energy and strength with which nature had not endowed them was found in _____.
46. _____ was humans' first great revolution that was developed barely _____ years ago.
47. The uncertainty of _____ resulted in the first surpluses and gave birth to cities and civilizations.
48. Humans harnessed the energy of animal species and plant life, from which they at last extracted the _____.
49. _____ are the yeast of life.
50. The principal daily concern of all humans is to _____.
51. _____ of humankind tills the soil over _____ of them by hand.
52. What is the pure energy-the energy of the sun-captured over millions of years by millions of plants more than a hundred million years ago.
53. In the last _____ years, the Earth's population has almost _____, and over _____ people have moved to the cities.

54. Today, over _____ of the world's _____ inhabitants live in cities.
55. _____ resulted in the invention of _____ which in turn permitted the invention of skyscrapers.
56. A _____ of oil generates as much energy as _____ in 24 hours, but worldwide only _____ percent of farmers have use of a tractor.
57. In the United States, only _____ farmers are left. (Equal to number of people in jails and prison in US)
58. They produce enough grain to feed _____ people. But most of that grain is used to feed _____ or _____.
59. Agriculture accounts for _____ % of humanity's water consumption.
60. _____, another gift of the petrochemical revolution, exterminated _____.
61. Toxic pesticides seeped into the _____.
62. _____ of the varieties developed by farmers over _____ of years have been wiped out.
63. How can a growing worldwide demand for meat be satisfied without recourse to _____ farms?
64. 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.
65. We know that the end _____ is imminent, but we refuse to believe it.
66. The automobile shapes _____ where every _____, a safe distance from the asphyxiated _____, and where neat rows of houses huddle round _____.
67. If LA's model were followed by all, the planet wouldn't have _____ vehicles, as it does today, but _____.
68. Everywhere, machines dig, bore and rip from the Earth the pieces of stars buried in its depths since its creation: _____.
69. As a privilege of power, _____ % of this mineral wealth is consumed by _____ % of the world's population.
70. Before the end of this century excessive _____ will have exhausted nearly all the planet's _____.
71. Since _____, the volume of international trade has increased _____ times over.
72. _____ percent of trade goes by sea. _____ million containers are transported every year headed for the world's major hubs of consumption.
73. _____ is one of the biggest construction sites in the world, a country where the impossible becomes possible.
74. The ocean covers _____ of the planet.
75. The _____ remain a secret. They contain _____ of species whose existence remains a mystery to us.
76. Since _____, fishing catches have increased _____, from _____ to _____ million metric tons a year.
77. _____ of fishing grounds are exhausted, depleted or in danger of being so. Most large fish have been fished out of existence since they have no time to _____.
78. _____ humans live in the world's desert lands, more than the combined population of _____.
79. What is fossil water?
80. Across the planet, one major river in _____ no longer flows into the sea for several months of the year.
81. Lake Powell took _____ to reach high-peak mark. Its level is now _____ of that.
82. Water shortages could affect nearly _____ people before _____.
83. These wetlands are crucial to all life on Earth. They represent _____ percent of the planet. What are wetlands?
84. Trees provide a habitat for _____ of the planet's biodiversity-that is to say, of all life on Earth. Every year, Why is this biodiversity important?
85. What are mangrove forests and why are they important?
86. Every year, _____ hectares of tropical forests disappear in smoke and as lumber.
87. What happens when the rain forest burn?
88. How long did it take Borneo's vast primary forest to totally disappear?
89. Over _____ people-almost a _____ of the world's population-still depend on charcoal for cooking and heating.
90. On the hills of Haiti, only _____ percent of the forests are left.
91. What is the story of the Rapa Nui, the inhabitants of the Easter Island?
92. 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.
93. 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.
94. It's all about carbon. Under the effect of global warming, the ice cap has lost _____ % of its thickness in _____ years. Its surface area in the summer shrinks year by year. It could disappear before _____.
95. By _____, a _____ of the Earth's species could be threatened with extinction.
96. Around the North Pole, the ice cap has lost _____ % of its surface area in _____ years.
97. Greenland's ice contains _____ % of the freshwater of the whole planet. When it melts, sea levels will rise by nearly _____ meters.
98. Sea levels are rising. Water expanding as it gets warmer caused, in the 20th century alone, a rise of _____ centimeters.

99. Coral reefs, for example, are extremely sensitive to the slightest change in water temperature. _____ percent have disappeared.
100. _____ 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.
101. What will happen when the glaciers in the Himalayas recede?
102. Droughts are occurring all over the planet. In Australia, _____ of farmland is already affected.
103. The permafrost is the ground that is constantly frozen. What will happen when it melts?
104. The world spends _____ times more on military expenditures than on aid to developing countries.
105. _____ people a day die because of dirty drinking water
106. _____ people have no access to safe drinking water
107. Nearly _____ people are going hungry
108. Over _____ % of grain traded around the world is used for animal feed or bio fuels
109. _____ % of arable land has suffered long-term damage
110. Every year, _____ hectares of forest disappear
111. One mammal in _____, one bird in _____, one amphibian in _____ are threatened with extinction
112. Species are dying out at a rhythm _____ times faster than the natural rate
113. _____ of fishing grounds are exhausted, depleted or in dangerous decline
114. The average temperature of the last _____ years have been the highest ever recorded
115. The ice cap is _____ % thinner than _____ years ago
116. There may be at least _____ climate refugees by 2050
117. 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.
118. Gabon is one of the world's leading producers of wood. What is selective logging?
119. I have seen houses producing their own energy. _____ people live in the world's first ever eco-friendly district in _____.
120. _____ % of the energy we consume comes from fossil energy sources. Every week, _____ new coal-fired generating plants are built in _____ alone.
121. _____, _____, _____ and _____ are the biggest investors in renewable energy. They have already created over _____ jobs.
122. 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.