AP Environmental Science Articles Journal

You will be required to keep an electronic journal of articles about Environmental Issues.

You may find the articles anywhere, but these websites are useful.

Do not just get your news from one source. Get your news from multiple sources.

More sources are always better.

<http://www.sciencedaily.com/>

[https://newsela.com/](https://newsela.com/https%3A//newsinbrief.com/environment)

[https://newsinbrief.com/environment](https://newsela.com/https%3A//newsinbrief.com/environment)

<http://www.enn.com/> <http://www.onearth.org/>

<https://www.sciencenews.org/topic/earth-environment>

You will be required to read and summarize TWO articles per week for homework. You are trying to see the big picture of Environmental Science. A few articles per week will allow you to reflect. Each article summary is worth 15 points (30 points/week) and the articles are due on Friday of each week. Presentations and sharing of your articles with the class will be worth additional points when we have time.

APES covers the following topics. Each week, you should find 2 articles on that topic and read them. These articles are not long, but do require your focused attention.

**At the bottom of this list is the format you will use to summarize and document the articles. Use Google Docs for these assignments and share them with me karren.luzier@weschools.org**

***Do not just cut and paste the summary from the website.* Use your own words!**

**Earth Systems and Resources**

* 1. Earth Science Concepts (Geologic time scale; plate tectonics, earthquakes, volcanism; seasons; solar intensity and latitude)
	2. The Atmosphere (Composition; structure; weather and climate; atmospheric circulation and the Coriolis effect; atmosphere-ocean interactions; ENSO)
	3. Global Water Resources and Use (Freshwater/saltwater; ocean circulation; agricultural, industrial, and domestic use; surface and groundwater issues; global problems; conservation)
	4. Soil and Soil Dynamics (Rock cycle; formation; composition; physical and chemical properties; main soil types; erosion and other soil problems; soil conservation)

**The Living World**

* 1. Ecosystem Structure (Biological populations and communities; ecological niches; interactions among species; keystone species; species diversity and edge effects; major terrestrial and aquatic biomes)
	2. Energy Flow (Photosynthesis and cellular respiration; food webs and trophic levels; ecological pyramids)
	3. Ecosystem Diversity (Biodiversity; natural selection; evolution; ecosystem services)
	4. Natural Ecosystem Change (Climate shifts; species movement; ecological succession)
	5. Natural Biogeochemical Cycles (Carbon, nitrogen, phosphorus, sulfur, water, conservation of matter)

**Population**

* 1. Population Biology Concepts (Population ecology; carrying capacity; reproductive strategies; survivorship)
	2. Human Population

**Land and Water Use**

* 1. Agriculture
	2. Forestry (Tree plantations; old growth forests; forest fires; forest management; national forests)
	3. Rangelands(Overgrazing; deforestation; desertification; rangeland management; federal rangelands)
	4. Other Land Use
	5. Mining (Mineral formation; extraction; global reserves; relevant laws and treaties)
	6. Fishing (Fishing techniques; overfishing; aquaculture; relevant laws and treaties)
	7. Global Economics (Globalization; World Bank; Tragedy of the Commons; relevant laws and treaties)

**Energy Resources and Consumption**

* 1. Energy Concepts (Energy forms; power; units; conversions; Laws of Thermodynamics)
	2. Energy Consumption
	3. Fossil Fuel Resources and Use (Formation of coal, oil, and natural gas; extraction/purification methods; world reserves and global demand; synfuels; environmental advantages/disadvantages of sources)
	4. Nuclear Energy (Nuclear fission process; nuclear fuel; electricity production; nuclear reactor types; environmental advantages/disadvantages; safety issues; radiation and human health; radioactive wastes; nuclear fusion)
	5. Hydroelectric Power (Dams; flood control; salmon; silting; other impacts)
	6. Energy Conservation (Energy efficiency; CAFE standards; hybrid electric vehicles; mass transit)
	7. Renewable Energy (Solar energy; solar electricity; hydrogen fuel cells; biomass; wind energy; small-scale hydroelectric; ocean waves and tidal energy; geothermal; environmental advantages/disadvantages)

**Pollution**

* 1. Pollution Types
	2. Impacts on the Environment and Human Health
	3. Economic Impacts (Cost-benefit analysis; externalities; marginal costs; sustainability)

**Global Change**

* 1. Stratospheric Ozone (Formation of stratospheric ozone; ultraviolet radiation; causes of ozone depletion; effects of ozone depletion; strategies for reducing ozone depletion; relevant laws and treaties)
	2. Global Warming (Greenhouse gases and the greenhouse effect; impacts and consequences of global warming; reducing climate change; relevant laws and treaties)
	3. Loss of Biodiversity

**Example of Formatting for this assignment:**

**Earth Systems and Resources**

## Article #1:

**Title of Article:** Diverse soil communities can help offset impacts of global warming

**Web Location:** http://www.sciencedaily.com/releases/2015/05/150519132807.htm

**Single Paragraph Summary:** Small soil animals can limit the effects of climate change, a team of researchers has shown through a long-term study. The researchers found that insects, worms and other small creatures can play a similar regulatory role in soil ecosystems by feeding on the microbes that can trigger increased carbon emissions.

**Area of Focus**:

* The Atmosphere (Composition; structure; weather and climate; atmospheric circulation and the Coriolis effect; atmosphere-ocean interactions; ENSO)
* Soil and Soil Dynamics (Rock cycle; formation; composition; physical and chemical properties; main soil types; erosion and other soil problems; soil conservation)

## Article #2:

## Title of Article: How rivers regulate global carbon cycle

**Web Location:** http://www.sciencedaily.com/releases/2015/05/150513132657.htm

**Single Paragraph Summary:** River transport of carbon to the ocean is not on a scale that will solve our carbon dioxide problem, but we haven't known how much carbon the world's rivers routinely flush into the ocean, until now. Scientists calculated the first direct estimate of how much and in what form organic carbon is exported by rivers. The estimate will help modelers predict how this export may shift as Earth's climate changes.

**Area of Focus:**

* Earth Science Concepts (Geologic time scale; plate tectonics, earthquakes, volcanism; seasons; solar intensity and latitude)
* The Atmosphere (Composition; structure; weather and climate; atmospheric circulation and the Coriolis effect; atmosphere-ocean interactions; ENSO)
* Global Water Resources and Use (Freshwater/saltwater; ocean circulation; agricultural, industrial, and domestic use; surface and groundwater issues; global problems; conservation)