**Day 1**

**Title**: Entry Event

[**Mad Max Video**](http://www.youtube.com/watch?v=F4xs5FDHu2E&list=PL3wdH8jN5yWXwjR9Zuqj-E4uiFe0KYfsn)

Mad Max video “The World Goes Mad 2014”

**Environment:**

Desks will be arranged in a half circle to facilitate conversation.

Students will move around the perimeter to do the Carbon Cycle activity.

**Activities:**

**Bell Ringer:**

**Adding Fuel to the Fire article**

By JAMES MCGINNIS

The Carbon Cycle Activity

**Length of Time:** 45-50 minutes

**Objective:**

Students will apply concepts taken from the carbon cycle activity to predict how future human activities will affect atmospheric carbon including the impact of biofuels.

Students will be able to discuss the interdependence and dynamic equilibrium among organisms, energy, matter, water, oxygen and minerals in the earth’s biosphere, lithosphere, atmosphere and hydrosphere after completing the carbon cycle activity.

Students will be able to describe how the increasing use of fossil fuels since the Industrial Revolution has changed the way that energy flows through the biosphere after completing the carbon cycle activity.

**Standards**

B.1.1 Describe the structure of the major categories of organic compounds that make up living organisms in terms of their building blocks and the small number of chemical elements (i.e., carbon, hydrogen, nitrogen, oxygen, phosphorous and sulfur) from which they are composed.

\*B.4.1 Explain that the amount of life environments can support is limited by the available energy, water, oxygen and minerals and by the ability of ecosystems to recycle the remains of dead organisms.

\*B.4.2 Describe how human activities and natural phenomena can change the flow and of matter and energy in an ecosystem and how those changes impact other species

**Materials:**

Computers

Projector

Video

Carbon cycle hand –outs

Scotch tape

**General Procedure**:

Students will take the pre-test. (10 min.)

Students will watch the video together and read the article. (15 min.)

They will then do the Carbon Cycle activity pre-industrial. (rest of class time).

**Assessment:** Exit question “What is one new thought that you had today – or one new thing that you learned - about oil or fuel supplies or the carbon cycle?”