Earth Science 11 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Blk: \_\_

**CLIMATE CHANGE**

**CLASS MURAL CHALLENGE**

**Driving question**: What is **climate change** and how will we adapt?

The world is changing. Human activities are changing the natural greenhouse. Over the last century, the burning of fossil fuels like coal and oil has increased the concentration of atmospheric carbon dioxide (CO2). This traps more heat, warming the Earth. Glaciers and sea ice are melting, reducing the amount of heat reflected (albedo). Sea level is rising. Deserts are expanding.

Habitats of pants and animals are changing rapidly.

The Earth’s climate is changing.

How will we adapt?

**Task**: To build a poster collage (mural) that creates awareness of climate change and the impacts these changes are having (and will have) on the Earth.

**Assignment**:

1. **Choose** an aspect of climate change (*see back*). You will create a poster **explaining** this topic in a visually exciting way.
2. **Research** information and images about your topic. Try these links:
* http://[climate.nasa.gov/](http://climate.nasa.gov/)
* [www.climatecentral.org/](http://www.climatecentral.org/)
* [www.pinterest.com/climatecentral/](http://www.pinterest.com/climatecentral/)
* [www.ipcc.ch/](http://www.ipcc.ch/)
* [www.climatechange.gc.ca/](http://www.climatechange.gc.ca/)
1. Design and **create a poster** to share your research and knowledge on your element of climate change. *(Individual or with a partner*)
	* Must include your name, block, and **list of sources** on the back.
	* Information and data must be accurate and
	* Must include both text and images. Must include colour.
	* Include collage, artwork, markers, graffiti, poetry, 3D objects… **Be creative!**
2. Combine all the posters together and **create a mural** that explains the causes and effects of climate change, and actions humans can take.
3. **In-class essay** inspired by the climate change mural of posters. (*Individual*)
	* *“What is climate change and how does it relate to humans?”*

**Poster due:** Friday, May 16th **Essay written on:** Tuesday, May 20th

**Marking Rubric NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**A. Poster Criteria *Yes* 5 4 3 2 1 *No***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Do we gain an insight into the issue? |  |  |  |  |  |
| Organized presentation of data? |  |  |  |  |  |
| Colour and images used? Exiting? |  |  |  |  |  |
| List of sources on back? |  |  |  |  |  |
| Effort apparent? |  |  |  |  |  |

**B. Essay Criteria *Yes* 5 4 3 2 1 *No***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Organized presentation of information? |  |  |  |  |  |
| Includes multiple cause/effect/action elements?  |  |  |  |  |  |
| Over 1 page in length? |  |  |  |  |  |
| Effort apparent? |  |  |  |  |  |

**Poster Mark = \_\_\_\_\_\_\_\_\_\_\_\_\_ Essay Mark = \_\_\_\_\_\_\_\_\_\_\_\_\_**

**About CLIMATE CHANGE…**

****

Global Warming

Greenhouse Effect

Reducing Albedo

Increasing CO2 levels

Increasing methane levels (CH4)

Permafrost Thaw

Pollution

Burning Fossil Fuels

(*cars, industry…)*

Changing Ocean Currents

Rising Temperatures

Deforestation

Natural Causes

**EFFECT**

Loss of Biodiversity

Increased Global Warming

Sea Level Rise

Ocean Warming

Ocean Acidification

Glacier Retreat

Arctic Sea Ice Decline

Antarctic Ice Sheet Collapse

Desertification

Drought

Flooding

Increased Storm Frequency

Increased Extreme Weather

**ACTION**

Personal Action

Sustainable Choices

Conserving Energy

Alternate Energy Sources

*(Solar, Nuclear, Wind, Wave, Geothermal, Hydro, etc.)*

Alternate Fuel Sources

Electric/Hybrid Cars

Biofuels

CO2 Capture Technology

Geoengineering

Nuclear Fusion (Cold Fusion)

Adaptation