

## Climate Change (Basics and Significance) Lesson Study Guide

As you go through the corresponding slideshow, fill in the blanks of important facts about climate change and its significance!

### A. Explanation:

- Climate change is a \_\_\_\_\_ change in the average weather patterns that normally define \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ climates.
- What are the main human activities that cause GHG emissions?
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
  - d. \_\_\_\_\_
  - e. \_\_\_\_\_

### B. Greenhouse Effect:

- What gets trapped in the atmosphere? Where does it go?
- \_\_\_\_\_ % of the heat trapped in our atmosphere ends up being absorbed into the world's oceans.

### C. Factors of Climate Change:

- Why is Carbon Dioxide such an important factor?
  - Most \_\_\_\_\_ pollutant in the atmosphere.
  - Present in every \_\_\_\_\_ and \_\_\_\_\_ thing.
- Why is human development a factor in climate change? Give three reasons.
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_
- How are Fertilizers and the Agricultural Industry connected?
  - Contribute to \_\_\_\_\_, which in turn leads to \_\_\_\_\_, in our water sources causing \_\_\_\_\_, \_\_\_\_\_, and erosion.

### D. Emissions:

- What were two of the different pollutants that were discussed? \_\_\_\_\_ & \_\_\_\_\_.
- One major contributor of \_\_\_\_\_ levels on earth is cows burping!

### E. Effects:

- Agriculture and deforestation both emit about \_\_\_\_\_ % of greenhouse gas emissions
- \_\_\_\_\_ square feet of Arctic summer sea ice melts for every airline passenger who flies \_\_\_\_\_ miles.”

- What does LOWERN stand for? What does it help us identify?

- **L:**
- **O:**
- **W:**
- **E:**
- **R:**
- **N:**

■ It identifies what effects the \_\_\_\_\_ and why.

#### F. Flora and Fauna:

- In the past \_\_\_\_\_ years, the US has experienced roughly \_\_\_\_\_ more large wildfires every year than the year before.
- Between 2014 and 2018, the federal government spent an average of \_\_\_\_\_ fighting wildfires every year
- Estimations suggest that \_\_\_\_\_ in \_\_\_\_\_ species will become extinct with severe global warming.
- \_\_\_\_\_ species can adapt faster than \_\_\_\_\_ species can to warmer temperatures

#### G. Economics:

- \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ land use generate about \_\_\_\_\_ of human GHG emissions (40%+ of methane).
- \_\_\_\_\_ make up \_\_\_\_\_% of all US carbon emissions.
- Producing the \_\_\_\_\_ we eat creates nearly \_\_\_\_\_% of emissions.

#### H. By Country:

- Why do you think Sweden has so little CO2 emission contribution in comparison to the top three countries?
  - \_\_\_\_\_
  - \_\_\_\_\_

#### I. Significance of Climate Change:

- Climate justice is the connection between \_\_\_\_\_ justice & \_\_\_\_\_ justice in regards to climate change.
- \_\_\_\_\_ describes how climate change is not caused by a single agent, but by a vast number of individuals and institutions not unified by a comprehensive structure of agency.

#### 3 Important Implications:

1. Climate change is a \_\_\_\_\_ phenomenon
  2. Climate change impacts are \_\_\_\_\_
  3. Backloading implies that climate change is a \_\_\_\_\_ phenomenon
- Climate change is often confused with \_\_\_\_\_

- Climate change is natural, but it is the \_\_\_\_\_ of change at which it is currently happening which is concerning to scientists now
- The Tragedy of the \_\_\_\_\_ is when a resource is shared among many people. In the absence of regulation, each individual will have a tendency to exploit the \_\_\_\_\_ to his/her own advantage, typically without limit, depleting the resource.