



Science Virtual Learning

7th Grade Science

Effects of Climate Change



April 29, 2020



7th Grade Science Lesson: April 29, 2020

Objective/Learning Target:

I can identify and describe the Effects of climate change on the Environments of the world.

Bellwork (Do this first on your own piece of paper):

What is the difference between weather and climate?

Next watch this Video Over: [National Geographic-Causes & Effects of Climate Change](#)

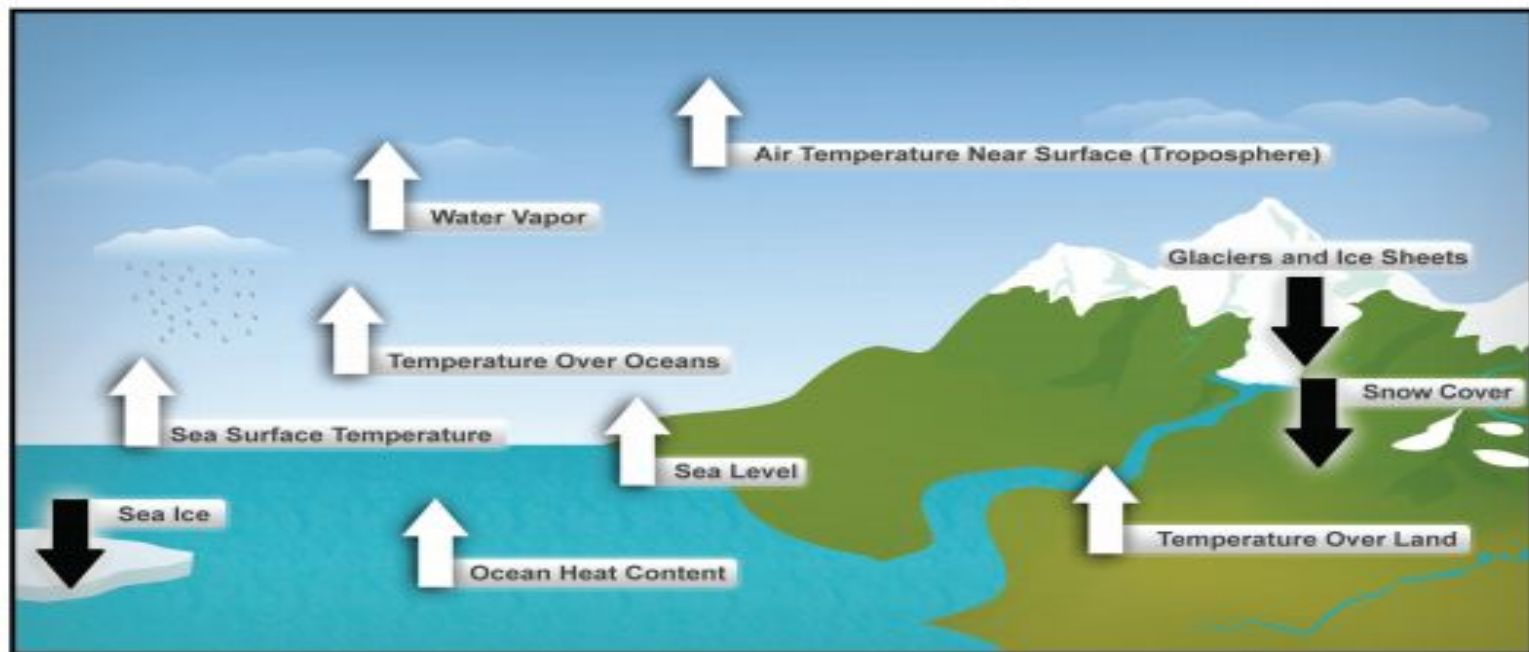


Bellwork Answer Key:

Weather: the atmospheric conditions including temperature, precipitation, wind, and humidity in a particular region over a short period of time (days and weeks).

Climate: the average of the weather in a region over a long period of time, like 30 years or more.

Ten Indicators of a Warming World



National Climate Assessment and Development Advisory Committee. (2010). Ten Indicators of a Warming World. Retrieved from <http://www.globalchange.gov/browse/multimedia/ten-indicators-warming-world>
(Figure source: NOAA NCDC based on data updated from Kennedy et al. 2010)



Practice (use the graphic from slide 4 to help you fill in the table)

(Write these down on a piece of paper to use for today's practice)- Answers will vary depending on student.

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Indicator	What have you seen/heard about this indicator before? (Example: Causes more Precipitation or Polar Bears losing habitat)	How could this indicator affect wildlife, cities, people, etc.? (Predict)	How would this Indicator impact you directly? (Example: Hotter days = less playing outside)
Increased Water Vapor			
Increased Air Temperature Over Land			
Decreased Sea Ice			



Some Key Points to Remember...

(Write these down on a piece of paper to use for today's practice)

- **Effects that scientists had predicted in the past would result from global climate change are now occurring:**
 - loss of sea ice
 - accelerated sea level rise
 - longer, more intense heat waves
 - More intense weather patterns/storms
- **Future Effects (To still include those from above as well):**
 - Temperatures will continue to Rise
 - Extended Growing season for Crops
 - Arctic Likely to become Ice Free
 - Decreased/Changed habitats for animals in areas affected by Climate Change



More Practice...

- Click on this link: [National Climate Assessment](#)
- On the left side of the page, click “Explore Highlights”
- Then, click the “Regions” Icon
- Next, click “Explore Regions” Icon
- We live in the Midwest so click “Midwest”
- Use the information now for the Midwest to answer the questions on the next slide



More Practice-Use the Resource Information from Slide 7 to help you answer the questions

(Write this down on a piece of paper to use for today's practice)

1. List 4 states that the Midwest includes.
2. What could offset longer growing periods in agriculture?
3. What could increase the public's health risks?
4. How much higher than the national average is the Midwest's use of Fossil Fuels?
5. What would the be the range of risks to the Great Lakes due to Climate Change?



More Practice-Answer Key

(Write this down on a piece of paper to use for today's practice)

1. List 4 states that the Midwest includes. **Missouri, Kansas, Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, Nebraska, Oklahoma, Arkansas, North Dakota, South Dakota, Ohio, Wisconsin**
2. What could offset longer growing periods in agriculture? **Extreme Weather conditions will offset increased Crop Productivity.**
3. What could increase the public's health risks? **Increased heat wave intensities and frequency, as well as degraded air quality and water quality.**
4. How much higher than the national average is the Midwest's use of Fossil Fuels? **20%**
5. What would be the range of risks to the Great Lakes due to Climate Change? **Changes to fish species habitats and range, increased invasive species and harmful algal blooms and declined beach health.**



More Practice

[Climate Kids-Coral Bleaching](#)

[Climate Kids-OFFSET!](#)