

Station 1 Task Card – Temperature

Evidence for the Impact of Climate Change on the Physical System

Materials

Task Card, Graph 1, Graph 2, Student Handout, p. 1

Instructions

1. As a group, look at graphs 1 & 2. Talk about what you think they represent prior to looking at the questions for this station.
2. Feel free to ask each other questions about parts of the graph that you don't understand or point out parts of the graph that you think are important. It is helpful to start by identifying what each axis represents.
3. **After looking at the graphs, read the questions for this station that appear below. Discuss each question as a group.**
4. After you are finished discussing the questions, **individually answer the two questions for each station on the student handout.**

Station 1 Group Questions

Graph 1

1. What is the difference between the black dots and the red line?
2. How much has temperature, in degrees Celsius, changed since 1880?
3. What does it mean that this graph shows “land and ocean data”?

Graph 2

4. Name three places that were warmer than normal during 2015 - 2020.
5. Where in the world was the increase in warming the greatest?
6. What is the significance of a Global Mean = .95?

Now make an evidence supported claim on your student handout.

Evidence for the Impact of Climate Change on the Physical System

Materials

Task Card, Graph 3, Graph 4, Student Handout p.1

Instructions

1. As a group, look at graphs 3 & 4. Talk about what you think they represent prior to looking at the questions for this station.
2. Feel free to ask each other questions about parts of the graph that you don't understand or point out parts of the graph that you think are important. It is helpful to start by identifying what each axis represents.
3. **After looking at the graphs, read the questions for this station that appear below. Discuss each question as a group.**
4. After you are finished discussing the questions, **individually answer the two questions for each station on the student handout.**

Helpful Definitions:

Tide Gauge – A device for measuring sea level.

Satellite data – A satellite image used to judge the elevation above sea level.

Station 2 Group Questions

Graph 3

1. What has happened to the global sea level since 1880?
2. How many inches has the sea level risen since 1880?

Graph 4

3. Which regions of the world are people most at risk from rising sea levels?
4. How many millions of people in the US are at risk?
5. In the US, how many thousand (K) people in the city of Seattle, WA are at risk?

Now make an evidence supported claim on your student handout.

Station 3 Task Card – Snow and Glacier Cover

Evidence for the Impact of Climate Change on the Physical System

Materials

Task Card, Graph 5, Graph 6, Student Handout p.2

Instructions

1. As a group, look at graphs 5 & 6. Talk about what you think they represent prior to looking at the questions for this station.
2. Feel free to ask each other questions about parts of the graph that you don't understand or point out parts of the graph that you think are important. It is helpful to start by identifying what each axis represents.
3. **After looking at the graphs, read the questions for this station that appear below. Discuss each question as a group.**
4. After you are finished discussing the questions, **individually answer the two questions for each station on the student handout.**

Helpful Definitions:

Glacier – A huge mass of ice that slowly moves over a land mass.

Station 3 Group Questions

Graph 5

1. Where in the world are glaciers located?
2. What is the trend? Are glaciers increasing or decreasing globally?
3. How many meters of water have glaciers lost between 1970-2020?

Graph/Picture 6

4. Why are there two pictures in each column?
5. What do the groups of pictures show?

Now make an evidence supported claim on your student handout.

Station 4 Task Card – Severe Weather

Evidence for the Impact of Climate Change on the Physical System

Materials

Task Card, Graph 7, Graph 8, Student Handout p.2

Instructions

1. As a group, look at graphs 7 & 8. Talk about what you think they represent prior to looking at the questions for this station.
2. Feel free to ask each other questions about parts of the graph that you don't understand or point out parts of the graph that you think are important. It is helpful to start by identifying what each axis represents.
- 3. After looking at the graphs, read the questions for this station that appear below. Discuss each question as a group.**
4. After you are finished discussing the questions, **individually answer the two questions for each station on the student handout.**

Station 4 Group Questions

Graph 7

1. What data is shown on this graph?
2. What pattern do you notice about severe rainfall since 1970?

Graph 8

3. What is the time scale for this graph?
4. What do the different colored bars mean?
5. What pattern do you notice about these natural disasters?
6. Which of the events are associated with climate?

Now make an evidence supported claim on your student handout.