



Climate at a Glance

(Online Option)

Purpose: To explore patterns of temperature and precipitation in Michigan that are indications of climate change. You will be creating graphs from data from the National Climatic Data Center.

Directions: Go to the National Climatic Data Center web site at:
<http://www.ncdc.noaa.gov/oa/climate/research/cag3/cag3.html>.

Click on “Statewide,” then on Michigan.

There are two types of data available for Michigan: temperature and precipitation.

Example for 1895-2010

Select the periods of time listed below and fill in the information from the graphs that you generate.

Spring (March – May) 1895 to present (2010)

(Circle one)

Temperature: 0.08 °F / decade = increase no change decrease

Precipitation: 0.02 inches / decade = increase no change decrease

Summer (June – August) 1895 to present (2010)

(Circle one)

Temperature: -0.06 °F / decade = increase no change decrease

Precipitation: 0.16 inches / decade = increase no change decrease

Fall (September – November) 1895 to present (2010)

(Circle one)

Temperature: -0.08 °F / decade = increase no change decrease

Precipitation: 0.15 inches / decade = increase no change decrease

Winter (December - February) 1896 to present (2010)

(Circle one)

Temperature: 0.09 °F / decade = increase no change decrease

Precipitation: 0.04 inches / decade = increase no change decrease

Questions:

1. What do the graphs and data show about trends in temperature since 1895?

There was a slight increase in temperature during spring and winter. There was a decrease in temperature in summer and fall.

2. What do the graphs and data show about trends in precipitation since 1895?

All but the winter season showed an increase in precipitation with the greatest increase in summer and fall.

3. Do the graphs and data indicate that the climate of Michigan is changing? What is your evidence?

Yes. The temperature and precipitation amounts were both changing. The more dramatic change seems to be in precipitation.

Extra:

What are the trends in annual temperature and precipitation in the United States?
(See “National” at the National Climatic Data Center web site and generate a graph.)

Increase in temperature and precipitation.

What are the trends in annual temperature and precipitation in Flint, Michigan?
(See “Cities” at the National Climatic Data Center web site and generate a graph.)

Increase in temperature and precipitation.