Weather Maps

Main Objectives

- learn the differences in types of weather patterns
- learn different types of precipitation
- learn to interpret weather maps
- collaboration
- work together in a group
- communication

ACTIVITY

Pose weather related questions to students and formulate a class definition for "Weather." Ask what different elements make up the weather. Discuss with the class what a meteorologist does and how they interpret and predict weather.
Divide the class into six groups and assign each one a different type of weather map. Provide the links and questions for each group. Students will research their assigned map and create their own based on their research and present conditions of that day. Each group will present their weather map to the rest of the class and explain how they came to their own interpretation of the map.

A school visit from a local meteorologist would make a nice addition to this activity. Another idea is to set up a Facetime Live or other Telecommunication Question and Answer with a Meteorologist.

Materials

- Internet access
- Print resources about weather
- Five pieces of poster board, each with an outline of the United States; markers; stickers; scissors
- Weather and Climate video

  https://www.youtube.com/watch?v=XirAUvS_29I

  http://www.watchknowlearn.org/Video.aspx?VideoID=3929&CategoryID=2671

https://video.nationalgeographic.com/video/00000144-0a30-d3cb-a96c-7b3df4ed0000

CURRICULUM COMPONENTS

- Understand patterns of weather and factors that affect weather.
- 2.E.1.2 Summarize weather conditions using qualitative and quantitative measures to describe:
  - Temperature
  - Wind direction
  - Wind speed
  - Precipitation

- 2.E.1.3 Compare weather patterns that occur over time and relate observable patterns to time of day and time of year.

- 2.E.1.4 Recognize the tools that scientists use for observing, recording, and predicting weather changes from day to day and during the seasons.

  Vocabulary:
  weather, seasons, absorb, reflect, thermometer, air temperature, wind speed, weather vane, rain gauge, water cycle, North, South, East, West, precipitation, freezing point of water, anemometer, wind sock, sensors, cardinal/ordinal directions, evaporation, solar energy

- 5.P.2.1 Explain how the sun's energy impacts the processes of the water cycle (including evaporation, transpiration, condensation, precipitation and runoff).

- 5.E.1.1 Compare daily and seasonal changes in weather conditions (including wind speed and direction, precipitation, and temperature) and patterns.
- 5.E.1.2 Predict upcoming weather events from weather data collected through observation and measurements.

- 5.E.1.3 Explain how global patterns such as the jet stream and water currents influence local weather in measurable terms such as temperature, wind direction and speed, and precipitation.

  Vocabulary:
  wind speed, wind direction, temperature, latitude, hemisphere, barometer, air pressure, anemometer, wind vane, atmosphere, jet stream, water currents, rain gauge, thermometer, cirrus, stratus, cumulus, fronts, global patterns