

Unit Handout
4 9

Lesson 6: Reading a Wind Map

Purpose: Analyze data from a wind map to identify areas of high and low pressure, identify weather fronts, and make predictions about weather.

Guiding Questions: How is the movement of air useful to meteorologists?

Directions. Visit <http://earth.nullschool.net> to load the wind map (this is iPad compatible). Zoom in on the contiguous United States. Follow the instructions below.

Low Pressure
Find a low pressure system on the map. Remember, low pressure systems have warmer, less dense rising air. You can find one by looking for a location where the air is moving towards a spot. Take a screen shot of such a location and insert it into the space below. Draw arrows on the picture to show the movement of the air.
<i>Insert Screenshot Here</i>

High Pressure

Find a high pressure system on the map. Remember, high pressure systems have cold, more dense sinking air. You can find one by looking for a location where the air is moving away from a spot. Take a screen shot of such a location and insert it into the space below. Draw arrows on the picture to show the movement of the air.

Insert Screenshot Here

Analysis 1.

1. In which direction do low pressure systems rotate (in the Northern hemisphere)?
2. In which direction do high pressure systems rotate (in the Northern hemisphere)?
3. Look for a low pressure system in the southern hemisphere. In which direction does it rotate?
4. Look for a high pressure system in the southern hemisphere. In which direction does it rotate?

Weather Front

Find a weather front on the map. Weather fronts are indicated where two air masses meet and one or both of these masses changes direction. Take a screenshot of such a location and insert it into the space below.

Insert Screenshot Here

Analysis 2.

5. Look at the weather front you identified. What type of front do you think it is?

6. Give at least 2 observations that support your claim as to the type of front you identified.

Name

Period

Date

Verification

Now it's time to verify if the claims you made (low pressure, high pressure, and weather fronts) are correct. Visit a weather website (such as Weather Underground or weather.gov) and look for a current weather map that shows pressure systems and fronts. Insert that image into the space below.

Insert Screenshot Here