

Weather Fronts

Category : Classroom Activities

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Using changes in current weather conditions to locate frontal boundaries.

Topic: Weather Fronts

Objectives:

1. The student should be able to describe the weather associated with cold, warm, and stationary fronts.
2. The student should be able to locate a frontal boundary on a weather map by using changes in current conditions such as temperature, wind direction, air pressure, cloud types, and precipitation.

Activity One:

Discuss the weather changes associated with the passage of a cold or a warm front (weather associated with a stationary front is similar to that of a warm front). Discuss cloud types, amount and type of precipitation, changes in wind direction, and map symbols.

Activity Two:

Analyze a four to seven day period in Randy and Sheri's ADT hike by looking at the [Daily Readings Data Tables](#). Only compare readings taken at approximately the same time of day, and look for a week where you see some differences in the current conditions mentioned above.

Activity Three: Locating the front or fronts.

If you find a date where the temperature dropped, the winds shifted from the South or Southeast to the North or Northwest, and there were heavy rains or thunderstorms or vertically developed clouds, you may have located a cold front.

If you find a date where the temperature increased, the winds shifted to some type of southerly direction, and there were horizontally developed clouds or steady widespread rains, you may have located a warm front.

Draw in the frontal boundary or boundaries on a blank map of the United States (**see file attached to this article**) where you think it is located. Label the date at which this occurrence took place.

Activity Four: Checking your results.

Use the [National Oceanographic and Atmospheric Administration's website](#) to look up the weather map for the date when you drew your fronts.

If you were not correct, try another week in the ADT hike. You can also use information from journal entries where Randy and Sheri describe the weather changes.