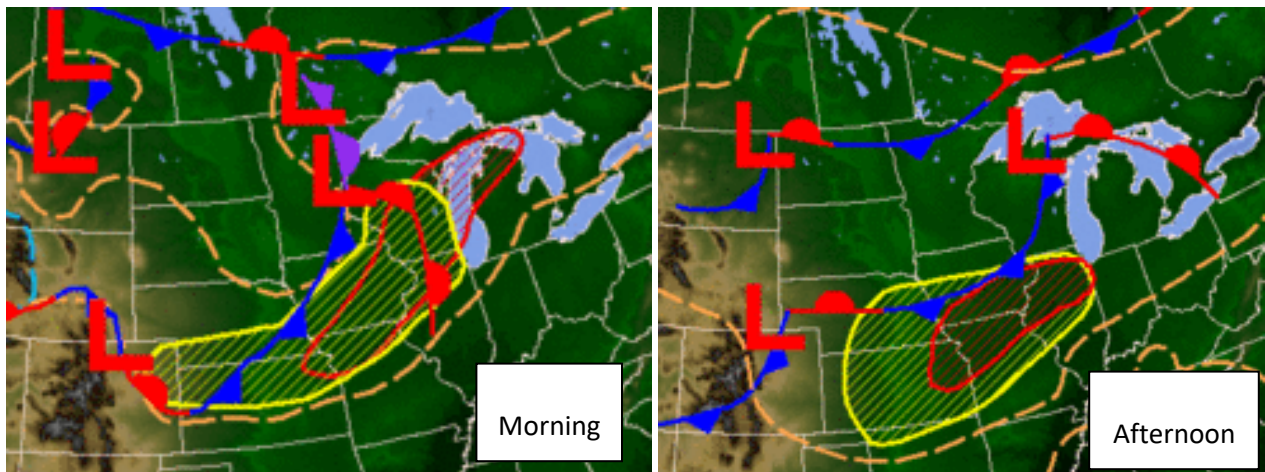


Interaction of Air Masses

Iowa Core Standard: MS-ESS2-5

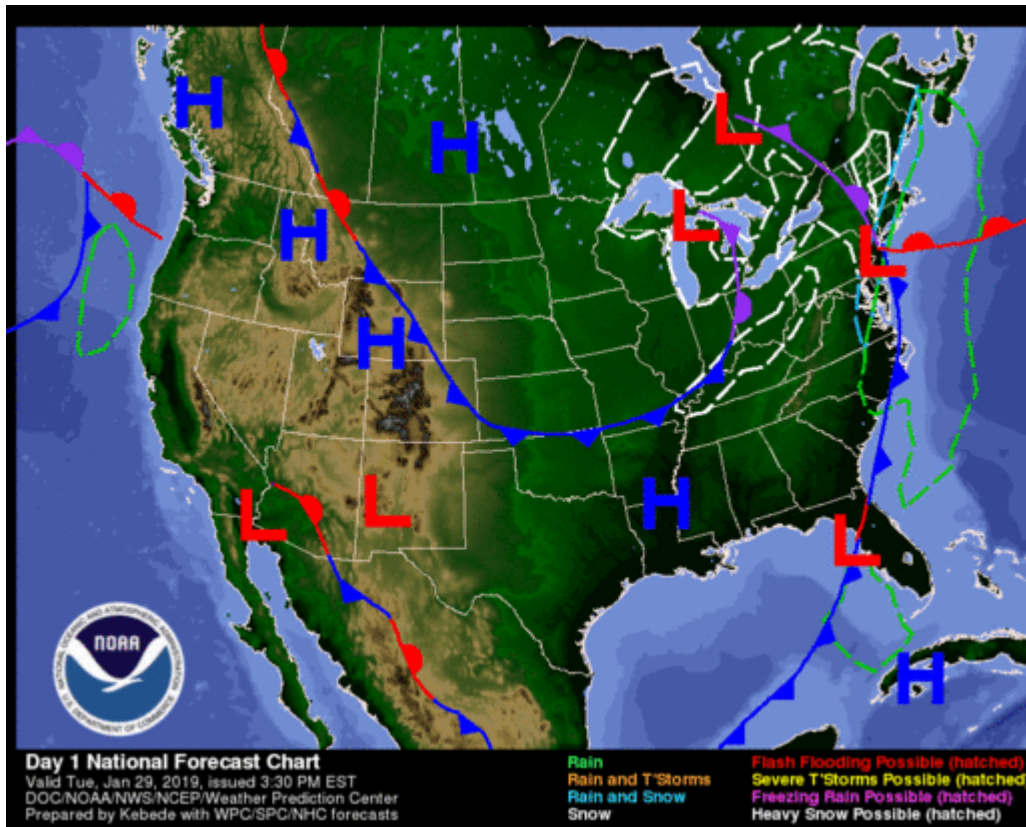
Using historical weather data found from a location of your choosing using information from [NWS Des Moines: Local Preliminary Monthly Data- CF6:](#)

A. Use the following two images to answer questions 1-7.



- 1.) What type of front is represented by the blue line, with blue arrows that is over Iowa?
- 2.) Would you expect the weather in North Dakota and South Dakota to be cold or warm/moist?
- 3.) What type of front is represented by the red line, with red semi-circles over Wisconsin?
- 4.) Would you expect the weather in central and southern Iowa to be cold or warm/moist?
- 5.) What often happens when a cold air mass advances over a warm/moist air mass?
- 6.) Is the weather likely sunny or stormy over the yellow and red shaded areas in Iowa?
- 7.) If the weather is stormy, what are some things you can do to stay safe?

B. Use the following to image to answer questions 8-10.



8.) Is the weather over Iowa likely cold or warm/moist?

9.) Is the weather likely sunny or stormy over Iowa?

10.) Is the weather over the southern United states likely colder or warmer than usual?

11.) If a wind chill warning were to be issued for Iowa, what are some things you can do to stay safe?

Answers on next page...

Answers:

(June 28, 2017 severe weather event over Iowa)

1.) What type of front is represented by the blue line, with blue arrows that is over Iowa?

Cold front

2.) Would you expect the weather in North Dakota and South Dakota to be cold or warm/moist?

Cold

3.) What type of front is represented by the red line, with red semi-circles over Wisconsin?

Warm front

4.) Would you expect the weather in central and southern Iowa to be cold or warm/moist?

Warm/moist

5.) What often happens when a cold air mass advances over a warm/moist air mass?

Thunderstorms/precipitation may form

6.) Is the weather likely sunny or stormy over the yellow and red shaded areas in Iowa?

Stormy

7.) If the weather is stormy, what are some things you can do to stay safe?

"When thunder roars, go indoors!", be prepared to act if severe weather warnings are issued

(January 30, 2019 extreme cold event over Iowa)

8.) Is the weather over Iowa likely cold or warm/moist?

Cold

9.) Is the weather likely sunny or stormy over Iowa?

Sunny

10.) Is the weather over the southern United States likely colder or warmer than usual?

Colder than usual

11.) If a wind chill warning were to be issued for Iowa, what are some things you can do to stay safe?

Stay indoors as much as possible. If you must go outdoors, cover exposed skin. Avoid prolonged exposure to cold temperatures.