Teaching Master: Weather Map Symbols

Sample Station Model

current temperature (18 C) → 18

wind speed (15 mph)

wind direction (north)

1012 ← wind pressure (1012 millibars)

current precipitation (rain) →

sky condition (overcast)
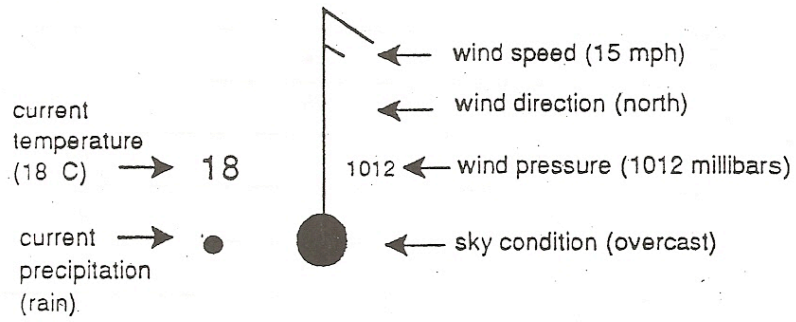
Station Model Symbols

Sky condition

⬤ overcast

◖ scattered clouds

◯ clear

Wind

5 mph

10 mph

15 mph

Precipitation

○ rain

◌ drizzle

❄ snow

≡ fog

thunderstorm

hurricane

Fronts

cold front

warm front

stationary front

Pressure Centers

H
1018
1016
1014

L
1004 1006
1008
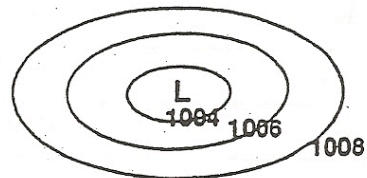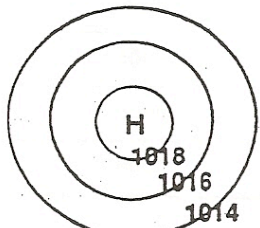
Teaching Master: Weather Station Data

Station #	Wind Direction	Wind Speed (mph)	Cloud Cover	Temperature °C Celsius	Current Precipitation	Pressure (millibars)
1	none	0	clear	6	none	1006
2	N	5	clear	7	none	998
3	none	0	overcast	12	drizzle	988
4	SSE	20	overcast	15	drizzle	994
5	SE	20	scattered	13	none	999
6	SSE	5	clear	12	none	1004
7	N	5	clear	6	none	1000
8	N	20	scattered	5	rain	994
9	W	20	overcast	15	none	990
10	S	10	clear	15	none	1008
11	N	5	clear	6	none	1007
12	NNW	10	scattered	4	none	1002
13	NW	15	scattered	4	thunderstorm	997
14	W	15	overcast	17	none	995
15	SW	15	scattered	16	none	998
16	SSW	5	scattered	16	none	1000
17	SSE	10	scattered	15	rain	1004
18	N	5	scattered	8	none	1008
19	NW	25	overcast	6	thunderstorm	999
20	WSW	10	overcast	17	none	998
21	WSW	5	scattered	18	none	1002
22	SW	5	scattered	17	none	1005
23	N	25	overcast	7	thunderstorm	1007
24	NW	30	overcast	6	thunderstorm	1002
25	WSW	15	overcast	17	none	1001
26	none	0	clear	19	none	1005
27	W	15	scattered	18	none	1008
28	W	5	clear	17	none	1006
29	SSW	10	clear	20	none	1006
30	W	5	clear	20	none	1011

Weather Map

Lab Sheet: Making a Weather Map

Weather maps are made by recording information in the form of numbers, symbols, or lines for each reporting station on a large map. A circle represents the location of the station. Data on different weather conditions is placed in specific places around the circle. Teaching Master "Weather Map Symbols" (page 23) shows how this data is placed. Use this information to plot the weather data on the map for the 30 stations in this activity.
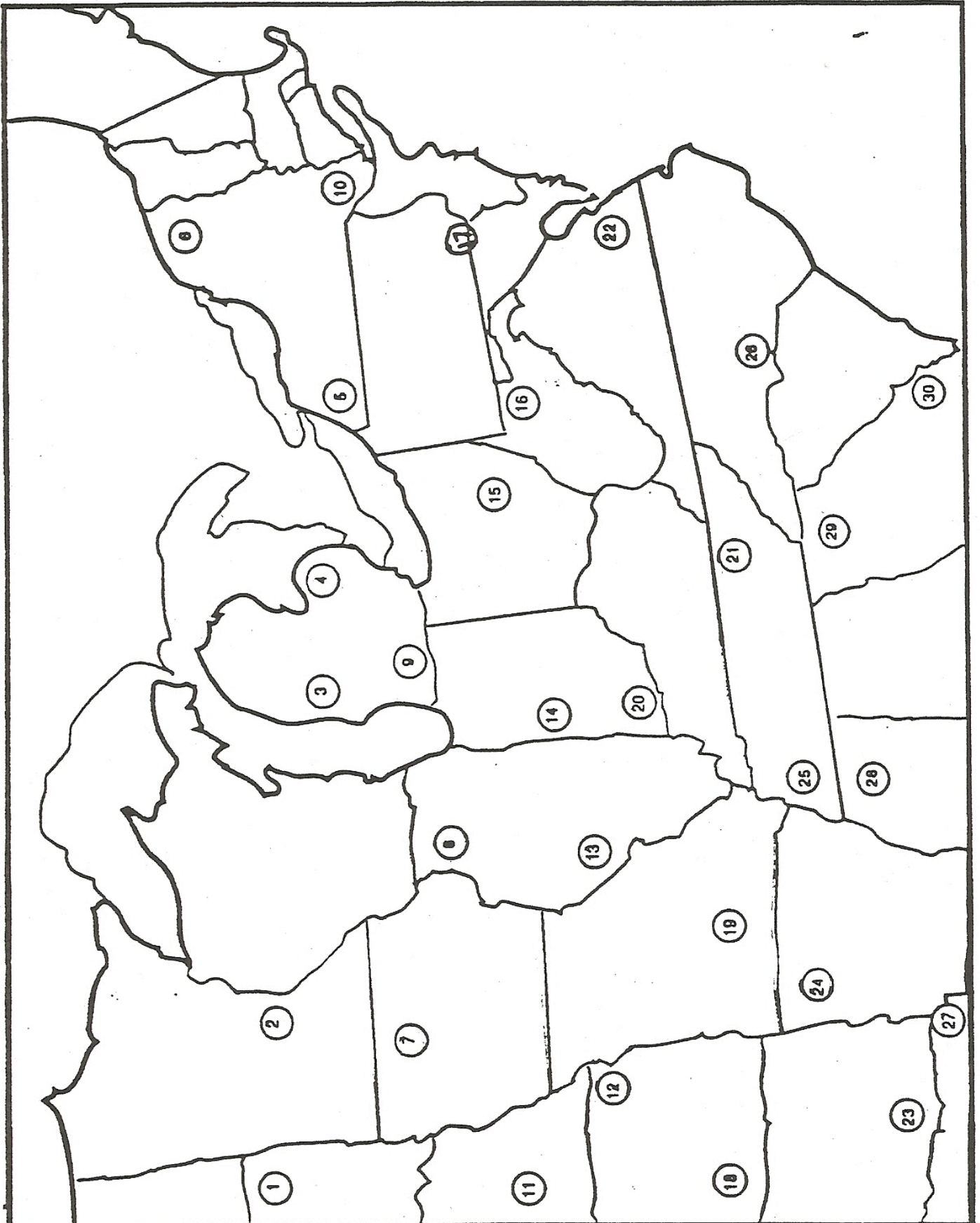
After the data is plotted, look for weather patterns. Draw isobars for pressures of 994, 998, 1002, and 1006 millibars. Draw in the location of the cold front and the warm front. Find and label the low pressure center on the map.

Use the map (page 21) to answer these questions:

1. Where is the area of lowest pressure?

2. What kind of weather is occurring near the low pressure area?

3. Which front seems to be creating thunderstorms as it moves across the country?

4. What weather conditions exist in N.C.?

5. Make a forecast for how weather conditions in N.C. might change.

6. Why is data needed from many weather stations in order to make a forecast of future weather conditions?