Using Weather Signs to Make A General Forecast

Equipment Needed:

Barometer - for measuring pressure

Wind Vane - for determine wind direction (or look at a flag outside)

Your Eyes - for observing sky conditions

Your Face and Hands - for feeling wind strength

Your Whole Body - for feeling temperature changes

Compass - for defining north, south, east, and west

List of Weather Signs - to apply measurements and observations

Things to note:

1. Weather will generally remain fair when:
   - The wind blows gently from the west or northwest
   - Pressure remains steady or rises
   - Cumulus clouds (puffy, cotton-like clouds) dot the summer sky in the afternoon
   - Morning fog breaks or "burns off" by noon (evident of clear sky above)

2. Rainy weather or snow may come when:
   - Cirrus clouds (high, thin, feathery clouds) thicken and are followed by lower clouds. (Particularly true if pressure is dropping)
   - There is a ring around the moon. (Particularly true if pressure is dropping)
   - Puffy cumulus clouds begin to develop vertically
   - Sky is dark and threatening to the west
   - Southerly wind increases in speed with clouds moving from west
   - The wind (particularly a north wind) shifts in a counterclockwise direction, that is from west to south
   - The pressure falls steadily (at about the same rate every three hours

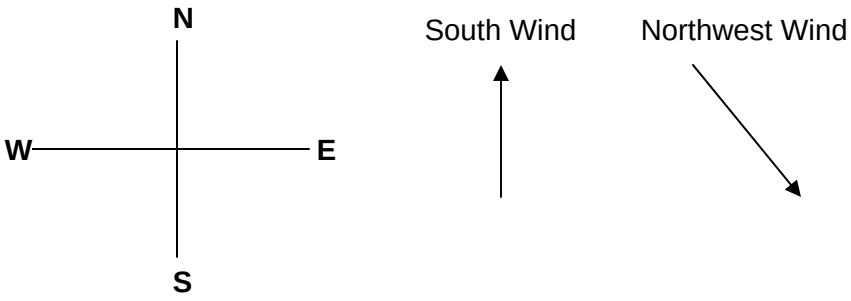
3. Weather will generally clear when:
   - Bases of clouds show steady rise to higher types
   - The wind (particularly an east wind) shifts to the west
   - The pressure rises rapidly (0.05 inches or more in 3 hours)

4. Temperature will usually fall when:
   - Wind blows from, or shifts to, north or northwest
   - Night sky is clear and wind is light
   - The pressure rises steadily in winter

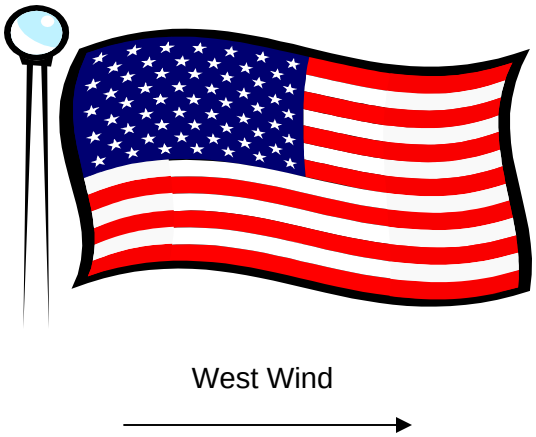
5. Temperature will usually rise when:
   - Wind is from south, particularly with cloud cover at night or clear sky during the day

Note:

1. Wind direction is defined by the direction from which it is blowing. Example - wind blowing from the south is a south wind.



2. When using a flag outside to determine wind direction you must first define North, South, East, and West in relation to the flag location.



Guide to the Weather Symbols

1. Tornado, funnel cloud
2. Thunderstorm in area (no rain at station)
3. Thunderstorm with rain
4. Snow thunderstorm
5. Thunderstorm with freezing rain
6. Thunderstorm with hail or ice
7. Severe thunderstorm in area (no rain at station)
8. Severe thunderstorm with rain
9. Severe snow thunderstorm
10. Severe thunderstorm with freezing rain

11. Severe thunderstorm with hail or ice
12. Moderate or heavy freezing rain
13. Light freezing rain
14. Moderate or heavy shower
15. Light rain shower
16. Light rain
17. Moderate rain
18. Heavy rain
19. Light snow shower
20. Moderate or heavy snow shower

Guide to the Weather Symbols

21. Light snow
22. Moderate snow
23. Heavy snow
24. Light hail or ice pellets
25. Moderate or heavy hail or ice pellets
26. Moderate or heavy freezing drizzle
27. Light freezing drizzle
28. Light drizzle, mist
29. Moderate drizzle
30. Heavy drizzle

31. Light hail or ice shower
32. Hail or ice pellet shower
33. Ice crystals
34. Fog
35. Blowing snow, blizzard
36. Blowing sand
37. Rain-snow mixture
38. Lightning
39. smoke, smog

N.C. Standard Course of Study and Grade Level Competencies

Grade 7 – Competency Goal 3
The learner will make observations and build an understanding of weather concepts.

Objectives
3.05 Examine evidence that atmospheric properties can be studied to predict atmospheric conditions and weather hazards:

- Humidity.
- Temperature.
- Wind speed and direction.
- Air pressure.
- Precipitation.
- Tornadoes.
- Hurricanes.
- Floods.
- Storms.

Objectives
3.06 Assess the use of technology in studying atmospheric phenomena and weather hazards:

- Satellites.
- Weather maps.
- Predicting.
- Recording.
- Communicating information about conditions.