Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mr. Schmidt Science 8

air mass climate source region weather Coriolis effect front

jet stream polar easterlies prevailing westerlies trade winds

anemometer barometer Doppler effect hygrometer radiosonde

thermometer analog forecast digital forecast isobar

isotherm station model

1. Front – boundary between two air masses of differing densities; can be cold, warm, stationary, or occluded and can stretch over large areas of Earth’s surface.
2. Anemometer – weather instrument used to measure wind speed.
3. Coriolis effect – effect of a rotating body that influences the motion of any object or fluid; on Earth, air moving north of south from the equator appears to move right or left, respectively; the combination of the Coriolis effect and Earth’s heat imbalance creates the trade winds, polar easterlies, and prevailing westerlies.
4. Digital forecast – weather forecast that uses numerical data to predict how atmospheric variable change over time.
5. Trade winds – two global wind systems that flow between 30 degrees north and south latitudes, where air sinks, warms, and returns to the equator in a westerly direction.
6. Weather – short-term variations in atmosphere phenomena that interact and affect the environment and life on Earth.
7. Barometer – weather instrument used to measure air pressure.
8. Air mass – large volume of air that has the characteristics of the area over which it forms.
9. Prevailing westerlies – global wind system that lies between 30 degrees and 60 degrees north and south latitudes, where surface air moves toward the poles in an easterly direction.
10. Thermometer – instrument used to measure temperature using either the Fahrenheit or Celsius scale.
11. Analog forecast – weather forecast that compares current weather patterns to patterns that occurred in the past.
12. Hygrometer – weather instrument used to measure humidity.
13. Source region – area over which an air mass forms.
14. Polar easterlies – global wind systems that lie between latitudes 60 degrees N and 60 degrees S and the poles and is characterized by cold air.
15. Radiosonde – balloon-borne weather instrument whose sensors measure air pressure, humidity, temperature, wind speed, and wind direction of the upper atmosphere.
16. Climate – the long-term average of variation in weather for a particular area.
17. Jet stream – narrow wind band that occurs above large temperature contrasts and can flow as fast as 185km/h.
18. Isobar – line on a weather map connecting areas of equal pressure.
19. Station model – record of weather data for a specific place at a specific time, using meteorological symbols.
20. Doppler effect – change in the wave frequency that occurs due to the relative motion of the wave as it moves toward or away from an observer.
21. Isotherm – line on a weather map connecting areas of equal temperature.