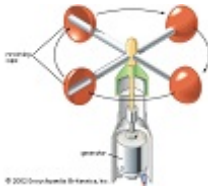

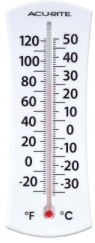
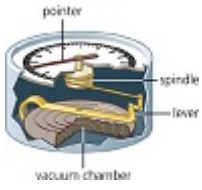

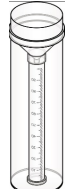


Science 1206
Unit 2: Weather Dynamics
Worksheet 2: Weather Instruments



Characteristic	Weather Instrument	Description
Wind Speed	<p style="text-align: center;">Anemometer</p> 	<p>-A device use to measure wind speed.</p> <p>-This device spins around at different rates depending on the speed of the wind.</p> <p>-Calibrated to convert the number of revolutions per minute into kilometer/hour.</p> <p>-Beaufort Wind Scale may also be used as a measure of wind speed.</p>
Wind Direction	<p style="text-align: center;">Wind sock or wind vane</p> 	<p>-Used to measure wind direction</p> <p>-Measured using north, south east and west</p>
Temperature	<p style="text-align: center;">Thermometer</p> 	<p>- A device used to measure temperature.</p> <p>- Temperature is defined as the measure of the average kinetic energy of a sample of matter. The higher their kinetic energy, that is the faster they move, the higher their temperature.</p> <p>-Measured in Degrees Celsius or degrees Fahrenheit</p>
Atmospheric Pressure	<p style="text-align: center;">Aneroid Barometer</p> 	<p>-Is used to measure atmospheric pressure.</p> <p>-Atmospheric pressure is the amount of air pushing down on you over a given area</p> <p>-Unit of measure is Kilopascal (kPa), Millibars (mb) and inches of Mercury</p>
Humidity	<p style="text-align: center;">Hygrometer</p> 	<p>-Measures relative humidity</p> <p>- Humidity is a measure of the amount of moisture (water vapour) in the air.</p> <p>-Unit of measure is from 0% (dry) to 100 % (saturated)</p> <p>-Psychrometer is a hygrometer consisting of a wet-bulb and a dry-bulb thermometer, the difference in the two thermometer readings being used to determine atmospheric humidity</p>
Precipitation	<p style="text-align: center;">Rain Gauge</p> 	<p>-Instrument used to measure precipitation</p> <p>-Precipitation means the amount of moisture that falls to earth from the sky. Precipitation may be either in liquid or solid form (rain, snow, etc.).</p> <p>-Measured in centimeters (cm) or millimeters</p>

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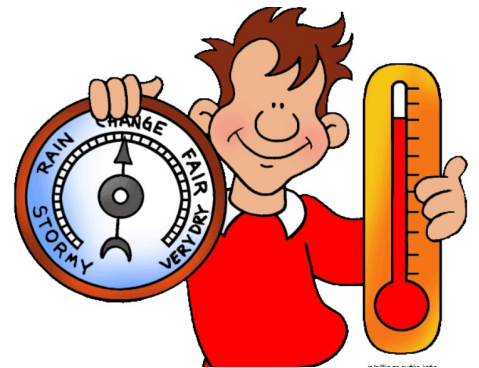
PART A: MULTIPLE CHOICE

[6]

Instructions: Shade the letter of the correct answer on the computer scorable answer sheet provided.

1. Which device is used to measure pressure?

- (A) Anemometer
- (B) Barometer
- (C) Thermometer
- (D) Psychrometer



2. Which device is used to measure wind speed?

- (A) Anemometer
- (B) Barometer
- (C) Psychrometer
- (D) Thermometer

3. Which device is used to measure relative humidity?

- (A) Anemometer
- (B) Barometer
- (C) Psychrometer
- (D) Thermometer

4. If you climb rapidly in an airplane or an elevator your ears might pop. What causes this to occur?

- (A) Air pressure decreases at higher altitudes
- (B) Air pressure increases at higher altitudes
- (C) Ear popping is the result of your change in speed
- (D) Ear popping is due to temperature change

5. Which SI unit is used to measure atmospheric pressure?

- (A) Kilopascal (kPa)
- (B) Millimeters of mercury (mm of Hg)
- (C) Kelvin (K)
- (D) Inches (in)

6. What happens to the pressure of air when air speed is increased?

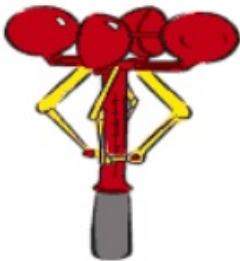
- (A) Change in air speed has no effect on pressure
- (B) Increased air speed reduces the pressure
- (C) Increased air speed increases the pressure
- (D) Pressure increases regardless of the air speed

PART B: Match the name of each weather instrument on the left with its purpose on the right. [6]

- | | |
|-----------------|---|
| ___ Thermometer | A. Measures humidity in the air |
| ___ Hygrometer | B. Measures high and low pressure in the air |
| ___ Anemometer | C. Measure air temperature |
| ___ Barometer | D. Measures how much precipitation has fallen |
| ___ Wind Vane | E. Measures direction of wind |
| ___ Rain gauge | F. Measures speed of wind |

PART C: Written Response

1. Write the name of the instrument below and explain how it works? [3]



2. Keep a daily weather log for 1 week using information from weather instruments as well as other sources such as the radio, television and internet sources. Record the following information at roughly the same time every day, wind direction, speed, Temperature, precipitation, and types of clouds. Be sure to make a note of any morning dew or frost. In the log, also list the weather forecast from the radio and television at the same time each day and show how the weather really turned out

Information					
Time					
Wind Speed					
Direction					
Temperature					
Precipitation					
Cloud Types					
Dew or Frost					
Forecast					
Actual					