**Science 2200 Study Guide**

***STSE 2-2, 4.2 and 4.4***

**STSE 2-1 Weather Forcasting (1 worksheet)**

Air mass

Air pressure

Fronts

Cold fronts

Warm fronts

Relative humidity

Humidex

Prevailing winds

Persistence

Trends

Climatology

Analog

Numerical weather prediction

Storm track

Blizzard

1. What are air masses and how are they related to air pressure?
2. What are fronts? What are the differences between cold and warm fronts?
3. What is relative humidity? How is it related to the humidex?
4. What are prevailing winds?
5. What are the five methods of weather forecasting? Describe each.
6. Which method requires the least amount of training and technology?
7. Which method uses past weather patterns to predict current weather?
8. Why is the numerical weather prediction method flawed?\*
9. Which method provides the best forecasting of day to day weather? Why?
10. Identify four things that influence the climate of Newfoundland and Labrador.\*
11. What ocean currents directly affect the climate of Newfoundland and Labrador?\*
12. Are climate conditions the same throughout this province? Explain.\*
13. How do wind patterns affect our climate?
14. What is a storm track?
15. What is a blizzard?

**4.4 Case Study: Three Days of Canadian Weather (2 worksheets)**

*Weather Symbols*

Warm fronts

Cold fronts

High pressure

Low pressure

Rain

Freezing rain

Snow

Lightning (lightening ☺)

High altitude warm air

1. In what general direction are the pressure systems moving?\*
2. Do the pressure systems in the Arctic appear to be moving at the same speed as the systems in southern Canada? Explain.\*
3. Be able to create a 24-h weather forecast based on weather maps.
4. What is a weather map?
5. How is a weather map made?
6. What are three (3) things shown on weather maps?\*
7. Describe the formation of a high pressure system.
8. Describe the formation of a low pressure system
9. What kind of weather is brought by a high pressure system?
10. What kind of weather is brought by a low pressure system?

**4.2 Build a Weather Station (1 worksheet)**

Air temperature

Humidity

Wind direction

Wind speed

Air pressure

Thermometer

Hygrometer

Psychrometer

Aneroid barometer

Wind vane

Anemometer

Rain gauge.

Wet bulb

Dry bulb

Low pressure system

High pressure system

1. What does it mean in terms of humidity if there is a greater difference \_\_\_\_\_\_\_\_\_\_\_\_\_\_ between the wet bulb and dry bulb thermometers compared to a smaller difference? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Does colder air expand or contract? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Warm air? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_