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

Weather Test Study Guide Block \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Section 1 – Atmosphere**

1. What is ozone?

2. What does ozone do for us?

3. What is the formula for ozone?

5. What layer of the atmosphere is the ozone in?

6. What two gasses make up 99% of the atmosphere?

7. List the 4 layers of the atmosphere from **CLOSEST** to Earth to **FARTHEST** from Earth

9. As the altitude goes up, what happens to the air temperature?

10. In the troposphere, what happens to the temperature?

Why?

11. In the stratosphere, what happens to the temperature?

Why?

12. In the mesosphere, what happens to the temperature?

Why?

10. In the thermosphere, what happens to the temperature?

Why?

**Section 2 – Air Masses and Weather**

1. What are the 4 types of lifting?

2. Describe **EACH** of the 4 types of lifting.

3. What does the **c** mean when talking about an air mass? Ex. cT

4. What does the **m** mean when talking about an air mass? Ex. mT

5. What does the **T** mean when talking about an air mass? Ex. cT

4. What does the **P** mean when talking about an air mass? Ex. mP

5. What do you call the boundary between two air masses?

6. When a front occurs, which air rises? Which air sinks?

7. List the 4 types of fronts below **AND** draw them (use the **CORRECT** colored pencil)

**Section 3 – Severe Weather**

1. What are the 3 types of severe weather?

2. Two things cause clouds to become electrically charged…what are they?

3. What is a tornado?

4. Draw a cloud and label the **POSITIVE** and **NEGATIVE** areas.

5. What scale is used to rate a tornadoes strength?

6. What scale is used to rate a hurricanes strength?

8. What is the most dangerous part of a hurricane?

**Section 4 – Weather Maps**

1. What is humidity?

2. What is dewpoint?

3. What instrument is used to calculate relative humidity and dew point?

4. What can hold more water vapor cold air or warm air?

5. What determines what the temperature really ‘feels’ like?

**Section 5 – Atmospheric heat**

1. List and describe the 3 ways heat is transferred.

2. What are the 3 results of radiation hitting an object?

3. What is the greenhouse effect?

4. What are the differences between natural greenhouse effect and human enhanced greenhouse effect?

5. What are 3 greenhouse gases?

6. How does being over land or water effect the air temperature?

1. How does this affect a coastal city verse a land locked city?

7. How does altitude affect air temperature?

**Section 6 – Air Pressure, Weather, and Wind**

1. What is air pressure?

2. How is air pressure measured?

3. What causes the differences in air pressure?

4. What type of weather does high pressure bring?

5. What type of weather does low pressure bring?

6. What are the two causes of wind?

7. What are global winds?

8. How many global wind cells are there? Why?