Meteorology Composition Questions

1. We have all heard the saying warm air rises and cold air sinks. Is that always true? Explain.

2. Could something that comprises only 4 out of every 10,000 molecules in air really make a difference? Explain.

3. What good is the ozone layer?

4. How did a chemical used in common spray cans damage the ozone layer?

5. Why does the ozone hole disappear in summertime?

6. The ionosphere is not an atmospheric layer, but rather a region that extends from the upper mesosphere up to 400 kilometers or so. The structure of this region varies dramatically from day to night. Strong solar radiation ionizes atoms, creating layers that absorb AM radio signals but disappear at night. At what time of day do you expect to be most successful at receiving a distant AM station on you radio? Explain.

7. What are the 3 main components of dry air and their %?

8. What are the sources of Methane in our atmosphere?

9. Why is water vapor common in the troposphere of the earth?

10. Where did all the oxygen come from in the atmosphere?

11. What was the chemistry of our atmosphere in the Precambrian time period?