Our Air – Why We Should Care **(warm-up)**

On a separate sheet of paper, indicate whether you think each numbered statement below is true (T) or false (F), or whether you are unfamiliar (U) to judge. Then, for each statement that you marked as true, write a sentence describing a practical consequence, application, or example of how it is true. Reword each false statement to make it true.

_____ 1. You could live nearly a month without food, and a few days without water, but you could survive only a few minutes without air.

_____ 2. Air and other gases are weightless.

_____ 3. The volume of a given sample of air (or any other gas) depends on its pressure and temperature.

_____ 4. The atmosphere exerts nearly 15 pounds of force on each square inch of your body.

_____ 5. Clean, unpolluted air is a pure substance.

_____ 6. The main source of air pollution is industrial activity.

_____ 7. The components of the atmosphere vary widely at different locations.

_____ 8. Minor air components such as water vapor and carbon dioxide play major roles in the atmosphere.

_____ 9. Oxygen is the molecule with the highest concentration in Earth's atmosphere.

_____10. Pollution control has not improved overall air quality.

Answers

1. TRUE. An air supply is needed for scuba diving, flying at high altitudes, or space travel.

2. FALSE. All forms of matter, including air, have mass.

3. TRUE. The volume of air, and any other gas, is a function of temperature and pressure.

4. TRUE. The human body is evolved to handle external pressures of approximately 15 lb/in^2.

5. FALSE. Air is a mixture of gases.

6. FALSE. Industrial activity fall behind transportation, space heating, and electricity generation in contribution to air pollution.

7. FALSE. If this were true, living organisms would be much more limited in the habiytatts they could occupy.

8. TRUE. Atmospheric water is part of the hydrologic cycle, and carbon dixode plays a crucial role in the heating of our planet and is associated with global warming.

9. FALSE. Oxygen only comprises about 16% of the atmosphere.

10. FALSE. Measuring the presence of pollutants in the atmosphere has allowed much better control of the release of potential pollutants and increased air quality.