EARTH'S GREENHOUSE EFFECT

Based on the information from *Earth's Greenhouse Effect* video, use the Word Bank to fill in the blanks.

1. Without an atmosphere, the earth would be 30 degrees Celsius _____*cooler*_____ than it is today.

2. The planet emits enough _____*long*_____ wave radiation into space to balance the _____*solar*_____ radiation absorbed by it (radiative equilibrium).

3. Most of this radiation is emitted by the _____*atmosphere*_____, instead of the earth's surface. Only 10% actually escapes into space.

4. The rest is absorbed by _____*clouds*_____ and greenhouse gases.

5. The two most abundant of these gases are _____*water*_____ _____*vapor*_____ and _____*carbon*_____ _____*dioxide*_____.

6. Short-wave radiation from the _____*sun*_____ passes through these gases, but long-wave radiation reflected by the surface of the earth is _____*absorbed*_____ by them and then is _____*re-emitted*_____ in all directions. About half is directed back toward the surface of the earth.

7. This causes a continual exchange of long-wave radiation between the_*surface of the earth*_ and the atmosphere above it.

8. Trapping of long-wave energy is called _____*Greenhouse*_____ _____*Effect*_____, and _____*enhances*_____ the surface temperature of the earth.

solar	short	carbon dioxide	sun
long	re-emitted	Greenhouse Effect	enhances
warmer	diminishes	methane gas	atmosphere
nitrous oxide	water vapor	Global Warming	surface of the earth
cooler	clouds	absorbed	

On the back of this page, make a diagram showing one or more of the above statements.