Guided Reading Chapter 7 Section 3

1. What is the difference between work “input” and work “output?”

2. The work output of a machine is always _____ the work input.

   a) less than or equal to c) greater than or equal to c) equal to

3. The work output of a “real” machine is always _____ the work input.

   a) less than b) greater than c) equal to

4. The _____ of a machine is equal to the ratio of the work output to its input.

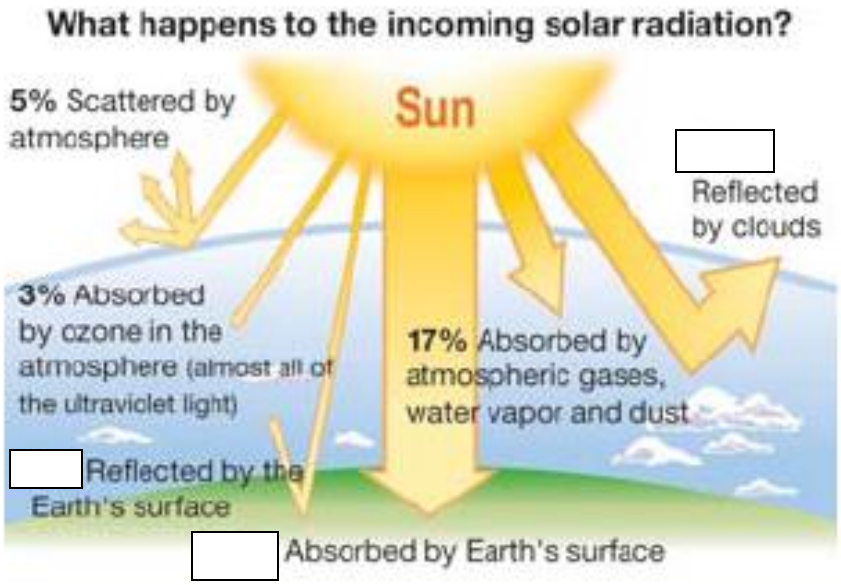
5. A perfect machine has _____ percent efficiency.

   a) 25 b) 50 c) 75 d) 100

6. The reason a machine does not have perfect efficiency, is because of _____.

7. To calculate efficiency, you divide the useable _____ work by the total _____ work.

8. Complete the diagram showing energy efficiency of Earth.



9. Scientists believe that even a (*large, small)* change in temperature on Earth could affect all living things.

10. T/F In any system, energy is lost.

11. Power is the _____ at which work is done.

12. If you do more work in a shorter time, you have more _____.

    a) energy b) power c) time

13. List and describe the units for *Power.*

14. Who was the inventor of the steam engine, and what is horsepower?

15. Write the equation for determining the power of something.