**4b. Stoichiometry theory questions**

1. **Define** a “mole”.
2. **Describe** what Lavoisier´s law means in terms of a chemical reaction.
3. **State** the 3 things that must occur for a chemical reaction to take place.
4. **Explain** how the term “activation energy” is related to a chemical reaction.
5. **State** the scientific terms that relate to chemical processes that release and absorb energy. Which is bond breaking and which is bond making?
6. **Explain** why the energy released by a chemcial reaction depends on the bond breaking and bond making.
7. **Explain**, in detail, why increasing the temperature increases the rate of reaction.
8. **Explain**, 2 other ways that you could increase the rate of reaction between a lump of calcium carbonate and some 0.1 M hydrochloric acid.
9. **Define** a “limiting” reactant.
10. **Explain** why knowing the % yield of a reaction is important for chemical industries.