Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_

**Genetic Engineering of Insulin**

Watch the following video clip. http://www.youtube.com/watch?v=m3925Pw-VwU

There is also a link to it on my wiki. It is 8 ½ minutes long. You should pause or review if necessary. Answer the questions below as thoroughly as possible.

1. What causes Type 1 diabetes?
2. Why does insulin need to be injected rather than swallowed?
3. How was insulin obtained prior to genetic engineering? Why was this not ideal?
4. What type of biomolecule is insulin?
5. What remarkable property of DNA makes genetic engineering possible?
6. What is genetic engineering?
7. What is the function of restriction enzymes?
8. What is the function of ligase?
9. What bacteria is used in the production of insulin? Where is it found?
10. What are plasmids?
11. Why are plasmids good for genetic engineers to work with?
12. What are the general steps in genetic engineering?
13. What are other uses for genetic engineering?
14. What do people worry about related to genetic engineering?