**Genetic Engineering Review Questions**

1. **Describe the role of restriction enzymes and ligase in the process of transformation.**
2. **The restriction enzyme BamH1 cuts DNA between the two Gs when it encounters the base sequence. Mark the recognition sites on the segment of DNA when the restriction enzyme BamHI is used.**

G G A T C C

C C T A G G

T A C G G A T C C T A G G G C A T A G C T C A G G A T C C C G T C A A T G G G G A T C C C

A T G C C T A G G A T C C C G T A T C G A G T C C T A G G G C A G T T A C C C C T A G G G

1. **Describe how bacteria can be made to produce human insulin.**
2. **Research –use a device to find an example of a transgenic organism (or Genetically Modified Organism, GMO). What is the reason/purpose for creating this organism or moving this trait?**
3. **Hypothesize what might happen if transgenic organisms were released into the wild.**
4. **What is a gene you might want to isolate and for what purpose?**