

Name:

### **Building a Model - Questions**

1. What are the three major components that make-up DNA?
  
  
  
  
  
  
  
  
  
  
2. Briefly explain the process of DNA replication.
  
  
  
  
  
  
  
  
  
  
3. What is the relationship between chromosomes and genes and between genes and DNA molecules?
  
  
  
  
  
  
  
  
  
  
4. For the past several years, scientists have been working to map and sequence the human genome - that is, all the instructions needed for making an organism. Aptly called the Human Genome Project, it is considered one of the biggest milestones in scientific history. Why do you think this project is so important? What types of information could it provide?
  
  
  
  
  
  
  
  
  
  
5. Scientists have been working to understand genes since the 19<sup>th</sup> century. Research the work of the Austrian monk and biologist Gregor Mendel. Why is he considered the "father of genetics"? What organism did he study to learn how traits are passed on from parents to offspring?