

**(Archives Star Bulletin, 2003)**

**Use the infographic, article and your previous knowledge to answer the following information:**

1. **What does HGP stand for?**
2. **Define Genome.**
3. **Approximately how many base pairs are found in the human genome? That means there would be how many individual nucleotides?**
4. **Those bases are divided into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ genes that code for proteins.**
5. **True/False: The goal of the HGP is to cure asthma.**

**Explain your choice.**

1. **What is gene therapy?**
2. **What is the difference between Somatic Gene Therapy and Germline Gene Therapy?**
3. **True/False: Gene therapy may involve inserting genes or turning genes on or off.**
4. **Describe a situation where scientists would want to use gene therapy to kill a cell.**
5. **Describe ONE challenge to successful gene therapy.**

**Would You Want to Know the Secrets Hidden in Your Baby’s Genes?**

Listen to the story at: <http://www.npr.org/sections/health-shots/2016/10/27/499651062/would-you-want-to-know-the-secrets-hidden-in-your-babys-genes> and answer the following:

1. Define sequencing.
2. Of what value is DNA sequencing?
3. Thinking question: How does the Human Genome Project (HGP) relate to DNA sequencing?
4. What is the experiment described here attempting to find out? How is it designed?
5. What are some reasons why parents might want to know a baby’s DNA sequence? What are some reasons why they may NOT want to know?
6. What are some ethical issues that surround DNA sequencing?

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