

Name: _____

The Sequencing and Mapping of Entire Genomes

The Who, What, When, Where, and Why of the Human Genome Project

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Visit the website http://en.wikipedia.org/wiki/Human_Genome_Project or follow the **link #1** posted at www.biologyforlife.com. Read the information on the first two sections of the page to determine which government and private organizations were involved with the completion of the Human Genome Project. Write your notes within this box.

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Visit the website http://www.ornl.gov/sci/techresources/Human_Genome/home.shtml or follow the **link #2** posted at www.biologyforlife.com. Record the bulleted summaries of the goals of the Human Genome Project within this box.

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Visit the website <http://www.genome.gov/11006939> or follow the **link #3** posted at www.biologyforlife.com. List countries which made contributions to the Human Genome Project within this box.

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Visit the website http://www.ornl.gov/sci/techresources/Human_Genome/project/timeline.shtml or follow the **link #4** posted at www.biologyforlife.com. Identify when the following events took place:

- When was the project first proposed?
- When the project official started?
- When was the first low resolution map of the human genome complete?
- When was the first (and smallest) complete genome map completed? (Hint: it was for a bacterium).
- When was the first human chromosome completely sequenced?
- When was a complete “working draft” of the human genome published?
- When was the human genome project completed?

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Technology and resources generated by the Human Genome Project and other genomics research are already having a major impact on research across the life sciences. Visit the website http://www.ornl.gov/sci/techresources/Human_Genome/project/benefits.shtml or click the **link #6** posted at www.biologyforlife.com to read how the information gleamed from the Human Genome Project is being applied. Summarize the six major applications below:

Molecular medicine

Energy sources and environmental applications

Risk assessment

Bioarchaeology, anthropology, evolution, and human migration

DNA forensics (identification)

Agriculture, livestock breeding, and bioprocessing