Haploid Encyclopedia Article

Haploid

The following sections of this BookRags Literature Study Guide is offprint from Gale's For Students Series: Presenting Analysis, Context, and Criticism on Commonly Studied Works: Introduction, Author Biography, Plot Summary, Characters, Themes, Style, Historical Context, Critical Overview, Criticism and Critical Essays, Media Adaptations, Topics for Further Study, Compare & Contrast, What Do I Read Next?, For Further Study, and Sources.

(c)1998-2002; (c)2002 by Gale. Gale is an imprint of The Gale Group, Inc., a division of Thomson Learning, Inc. Gale and Design and Thomson Learning are trademarks used herein under license.

The following sections, if they exist, are offprint from Beacham's Encyclopedia of Popular Fiction: "Social Concerns", "Thematic Overview", "Techniques", "Literary Precedents", "Key Questions", "Related Titles", "Adaptations", "Related Web Sites". (c)1994-2005, by Walton Beacham.

The following sections, if they exist, are offprint from Beacham's Guide to Literature for Young Adults: "About the Author", "Overview", "Setting", "Literary Qualities", "Social Sensitivity", "Topics for Discussion", "Ideas for Reports and Papers". (c)1994-2005, by Walton Beacham.

All other sections in this Literature Study Guide are owned and copyrighted by BookRags, Inc.

Contents

Haploid Encyclopedia Article.....1

Contents.....2

Haploid.....3

Haploid

A **cell** is haploid (from Greek *haploos* = single, *ploion* = vessel) if it contains only one set of chromosomes, as opposed to most body cells that contain two sets of chromosomes. A haploid cell is symbolized as "n."

In all cells of organisms, with the exception of the sex cells and the gametophyte generation in plants, chromosomes are arranged in pairs, called homologous pairs. The chromosomes in homologous pairs are the same size and have genes for the same traits. Each **chromosome** in the homologous pair comes from a different parent. A cell that has both chromosomes of each homologous pair is a **diploid** cell. A diploid cell is symbolized as "2n." In the human body, diploid cells have 46 chromosomes arranged in 23 homologous pairs.

A cell is haploid if it has only one chromosome from each homologous pair. The only cells in an organism that are haploid are the gametes, the sperm and eggs. In addition, in plants, the gametophyte generation is also haploid. During the process of **meiosis**, a series of divisions of the **nucleus**, the homologous pairs of chromosomes in a diploid cell split apart, forming haploid sperm and egg cells. In the human body, haploid cells have 23 chromosomes, no longer arranged in pairs.

During **fertilization**, a haploid sperm cell joins together with a haploid egg cell. The homologous pairs of chromosomes are restored, and the resulting cell will no longer be haploid. It will be a diploid cell, with the normal number of chromosomes for a body cell. For example, in the human body, a sperm with 23 chromosomes will join together with an egg containing 23 chromosomes. The resulting **zygote** will be diploid, with 46 chromosomes arranged in 23 homologous pairs.