

Name _____

Meiosis WS

What is the purpose of meiosis? (p.181)

Specialized sex cells are called _____. (p.181)

Sex cells produced by a male are _____.

Sex cells produced by a female are _____.

When the nuclei of the male and female sex cells fuse, the process is called _____.

What is the difference between diploid and haploid? (p.181)

If an organism has a diploid number of 16, what is its haploid number?

If an organism has a haploid number of 30, what is its diploid number?

What does the symbol N represent? 2N? (Figure 5.1-2, p. 181)

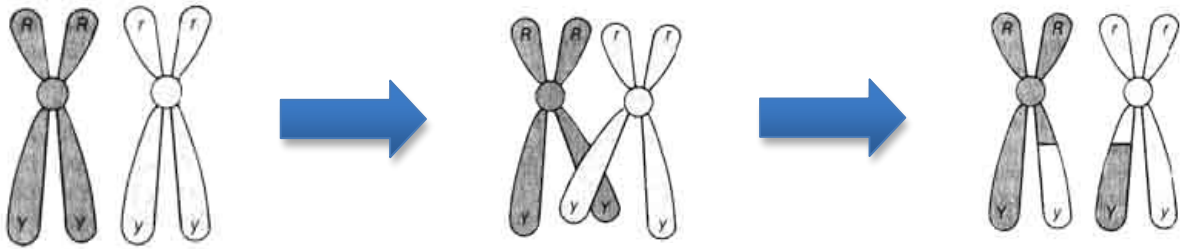
What is meiosis? (p.182)

Why is meiosis referred to as reduction division?

Define homologous. (p.183)

In prophase I of meiosis, each chromosome pairs with its corresponding homologous chromosome to form a structure called a **tetrad**. How many chromatids are in a tetrad? (p.183—look at picture)

The process of crossing over is illustrated below. Explain what is happening. (p.185)



What is the purpose of crossing over?

During which phase of meiosis does crossing over occur?

Complete the Chart (p.147-151&181)

Process	Number of Cells Produced	Are the cells produced genetically identical or genetically different?	Are the cell produced haploid or diploid?
Mitosis			
Meiosis			

If the parent cell has 34 chromosomes, and the cell divides by MITOSIS, how many chromosomes will each daughter cell have?

If the same parent cell divides by MEIOSIS, how many chromosomes will each daughter cell have?

Meiosis is just mitosis done twice. Do you agree with this statement? Explain your answer.

_____ is beneficial to a species because it increases diversity. (p.186)

Why is an increased amount of variation beneficial to a species?