

## Genetics Review

The test will have a multiple choice section and a written portion. To complete this test, bring at least one pen or pencil and something to work on after you're done. The multiple choice section will have fifty (50) questions and the written portion about ten.

The following topics may be covered on the test:

### Gregor Mendel

- what did he do?
- What did he work with?
- What did he conclude?

### Punnett Squares

- How do you do them?
- What is meant by dominant, recessive and co-dominant?
- How do you determine dominant vs. recessive
- How do you determine percents and ratios from Punnett squares?

### DNA

- What does it do during cell division?
- What are base pairs and how do they match up?
- How many chromosomes do humans have?
- What is a mutation?
- What is the difference between chromosomes and DNA?

### Sexual vs. Asexual reproduction

- Which human cells reproduce asexually and which are sexual?
- What animals reproduce sexually and which are asexual?
- What are the advantages and disadvantages of the ways to reproduce?

### Mitosis and Meiosis

- What are the steps of mitosis?
- What happens at each mitosis step?
- How many cells are the result of mitosis? and meiosis?

### Offspring

- What do the symbols mean on genetic pedigrees?
- How is gender determined through genes?
- How does an organism's genotype differ from its phenotype?
- What is the difference between heterozygous and homozygous?

### Review

- cell organelles
- matter

