

Name _____

Your midterm will cover Life Science and parts of Earth Science. It will also cover observation, scientific inquiry, and lab safety. Use your notes, worksheets, labs, previous tests, and handouts to study.

Observation and Scientific Inquiry

1. Know types of observations.
2. Know steps to scientific inquiry.
3. Know terms identified with scientific inquiry.
4. Pick out information from experiments. Example- What is the responding variable in this experiment?

Lab Safety

1. Know common safety rules and practices.

Microscope

1. Know parts of a microscope and their purpose.
2. Know how to use a microscope.
3. Know history and people responsible for its development.
4. Know types of microscopes.

Cells and Heredity- Know boldface words and sentences

Chapter 1-

1. Know what are cells and what is cell theory
2. Know basic differences between plant and animal cells.
3. Know basic parts of animals and plant cells and their functions.
4. Know chemicals compounds in cells.
5. Know the function and be able to explain these processes of the cell membrane- diffusion, osmosis, active and passive transport.

Chapter 2-

1. Know what is photosynthesis and respiration.
2. Know the word equations for both processes.
3. Know what is mitosis and its phases.
4. Know what causes cancer.

Chapter 3-

1. Know Mendel and his work.
2. Know genes and alleles- genotype, phenotype, homozygous, heterozygous, purebred, and hybrid.
3. Know principles of probability.

4. Know what are chromosomes and chromosome theory.
5. Know how meiosis is different from mitosis.
6. Know what is DNA and its makeup.
7. Know what is RNA and its functions.
8. Know what are mutations and how they can affect an organism.
9. Know how to read a Punnett Square and how to make one to answer questions about probability, and tell genotypes and phenotypes

Chapter 4-

1. Know what are multiple alleles and how they work.
2. Know what traits are controlled by multiple alleles.
3. Know how environment can affect genes.
4. Know male and female sex chromosomes.
5. Know what are sex-linked genes.
6. Know what is a pedigree, how to read one, and how to make one.
7. Know what is genetic disorder.
8. Know genetic disorders- their causes and their characteristics.
9. Know what is genetic counseling and what technology can be used.
10. Know advances in genetics- Selective breeding, cloning, genetic engineering, and the use of DNA.
11. Know what is the Human Genome Project.

Earth Science- Inside Earth

Chapter 1-Plate Tectonics

1. Know is geology.
2. Know the parts of the Earth's interior.
3. Know what are convection currents.
4. Know the theory of continental drift.