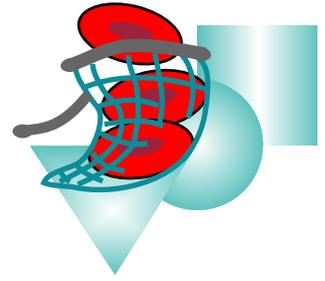


Activity “Administrivia”:



Grade Levels 6-8



Activity “Administrivia”

CAST YOUR NET: ADVENTURES WITH BLOOD

Relevant TEKS:

6th Grade Science

6.3: Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:

- (A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student;
- (C) identify advantages and limitations of models such as size, scale, properties, and materials;
- (D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content.

7th Grade Science

7.2: Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:

- (D) construct tables and graphs, using repeated trials and means, to organize data and identify patterns; and
- (E) analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends.

7.3: Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:

- (A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student;
- (B) use models to represent aspects of the natural world such as human body systems and plant and animal cells;
- (C) identify advantages and limitations of models such as size, scale, properties, and materials;
- (D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content.

7.11: The student knows that populations and species demonstrate variation and inherit many of their unique traits through gradual processes over many generations. The student is expected to:

- (C) identify some changes in genetic traits that have occurred over several generations through natural selection and selective breeding such as the Galapagos Medium Ground Finch (*Geospiza fortis*) or domestic animals.

7.14: Organisms and environments. The student knows that reproduction is a characteristic of living organisms and that the instructions for traits are governed in the genetic material. The student is expected to:

- (A) define heredity as the passage of genetic instructions from one generation to the next generation;
- (B) compare the results of uniform or diverse offspring from sexual reproduction or asexual reproduction; and
- (C) recognize that inherited traits of individuals are governed in the genetic material found in the genes within chromosomes in the nucleus.

8th Grade Science

8.3: Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:

- (C) identify advantages and limitations of models such as size, scale, properties, and materials;

Biology

Bio 3: Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:

- (E) evaluate models according to their limitations in representing biological objects or events;



LESSON 3
ACTIVITY 3D

Activity “Administrivia”:

 **Grade Levels 6-8** 

Bio 5: (5) Science concepts. The student knows how an organism grows and the importance of cell differentiation. The student is expected to:

(C) describe the roles of DNA, ribonucleic acid (RNA), and environmental factors in cell differentiation;

Bio 6: Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:

(A) identify components of DNA, and describe how information for specifying the traits of an organism is carried in the DNA;

(B) recognize that components that make up the genetic code are common to all organisms;

(D) recognize that gene expression is a regulated process;

(E) identify and illustrate changes in DNA and evaluate the significance of these changes;

(F) predict possible outcomes of various genetic combinations such as monohybrid crosses, dihybrid crosses and non-Mendelian inheritance;

(G) recognize the significance of meiosis to sexual reproduction;

(H) describe how techniques such as DNA fingerprinting, genetic modifications, and chromosomal analysis are used to study the genomes of organisms.

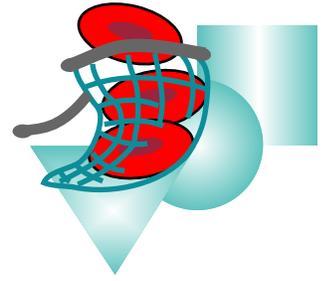
Bio 7: Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:

(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success;

(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species;

(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination; and

(G) analyze and evaluate scientific explanations concerning the complexity of the cell.



Activity “Administrivia”

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LESSON 3
ACTIVITY 3D