

Curriculum Grade Book

Jefferson County Schools
Final, 05/30/01

Grade 10 Science

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
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| Earth and Space Science | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to interpret the water cycle in the biosphere. | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to interpret the principal chemical cycles in the biosphere. | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to interpret the carbon, oxygen and nitrogen cycles in the biosphere. | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to interpret an illustration of the oxygen-carbon dioxide cycle. | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to create a model or diagram of the oxygen-carbon dioxide cycle. | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to explore the impact of acid rain on the environment. | | | | | | | | | | | | | | | | | | | | |
| Life Science | | | | | | | | | | | | | | | | | | | | |
| ● The learner will be able to investigate the structure and function of organelles in the cell. | | | | | | | | | | | | | | | | | | | | |
| ● The learner will be able to identify relationships among living things on the basis of structural parts, symmetry, metamorphosis and alternation of generations by integrating a comparative study of plant and animal anatomical structures. | | | | | | | | | | | | | | | | | | | | |
| ● The learner will be able to explore how organisms and their environments interact through various relationships, population dynamics and behavior patterns. | | | | | | | | | | | | | | | | | | | | |
| ● The learner will be able to explore the diversity of living things by interpreting classification systems, investigating different environments and likening life cycles. | | | | | | | | | | | | | | | | | | | | |
| ● The learner will be able to diagram and label various reproductive cells utilizing a microscope or hand lens. | | | | | | | | | | | | | | | | | | | | |
| ● The learner will be able to gather and/or survey a variety of fossils and associate them to biogeographical alterations. | | | | | | | | | | | | | | | | | | | | |
| ● The learner will be able to study plant and animal specimens and find similarities and differences in their structural parts, symmetry and life cycles. | | | | | | | | | | | | | | | | | | | | |
| ● The learner will be able to explore the ideas of genetics and heredity, various methods of reproduction, patterns of inheritance, and genetic disorders. | | | | | | | | | | | | | | | | | | | | |
| ● The learner will be able to interpret human population graphs to infer the effect on global resources, political systems and political systems. | | | | | | | | | | | | | | | | | | | | |

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| ● The learner will be able to document his/her nutritional intake for one week, calculate the amount of caloric intake each day for each biomolecule, and assess his/her diet to create a plan of improvement. | | | | | | | | | | | | | | | | | | | | |
| ● The learner will be able to survey a habitat that is outside and recognize its living and nonliving factors, kinds of populations, producers, consumers and decomposers. | | | | | | | | | | | | | | | | | | | | |
| ● The learner will be able to research examples where human impact has altered an ecosystem using recent publications and prepare a written and/or oral presentation of his/her findings. | | | | | | | | | | | | | | | | | | | | |
| ● The learner will be able to gather data from local or regional records about population counts of a particular species found in the area and hypothesize what events might impact populations. | | | | | | | | | | | | | | | | | | | | |
| ● The learner will be able to gather data, create and analyze population graphs to find out if the population is stable, increasing or decreasing. | | | | | | | | | | | | | | | | | | | | |
| ● The learner will be able to plan and perform a controlled experiment to survey enzymatic actions and recognize potential sources of error. | | | | | | | | | | | | | | | | | | | | |
| ● The learner will be able to analyze modes of inheritance involving co-dominance, incomplete dominance, multiple alleles and polygenic traits utilizing genetic problems or Punnett squares. | | | | | | | | | | | | | | | | | | | | |
| ● The learner will be able to analyze modes of inheritance involving sex-linkage, co-dominance, incomplete dominance, multiple alleles and polygenic traits. | | | | | | | | | | | | | | | | | | | | |
| ● The learner will be able to create and/or interpret a karyotype and recognize abnormalities for chromosome number, deletions and translocations. | | | | | | | | | | | | | | | | | | | | |
| ● The learner will be able to investigate and assess DNA technologies from an ethical and scientific perspective. | | | | | | | | | | | | | | | | | | | | |
| ● The learner will be able to explore the scientific and ethical implications of genetic engineering, recombinant DNA, selective breeding, hybridization, cell and tissue culturing, transgenic animals, and DNA fingerprinting. | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to model or depict the movement of water, oxygen, nitrogen and carbon dioxide through a plant. | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to differentiate plant and animal cells. | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to find similarities and | | | | | | | | | | | | | | | | | | | | |

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| differences in the cell cycle of plant and animal cells. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to interpret a variety of cell processes. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to compute the ratio of cell surface area to cell volume. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to investigate the organelles of various kinds of cells. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to liken the organelles of various kinds of cells. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to make a three-dimensional model of a cell. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to create a diorama or time line that shows the alteration of living things over time. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to recognize the reactants and products of respiration when provided with the equations. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to order the steps of cellular respiration. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to find similarities and differences in the biological processes that are involved in energy transfer during photosynthesis and respiration. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to order the steps of anaerobic respiration. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to investigate the efficiency of aerobic respiration. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to investigate the efficiency of anaerobic respiration. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to explore how respiration and photosynthesis relate. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to connect the way that respiration and photosynthesis are dependant on one another to organisms. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to liken the efficiency of aerobic and anaerobic respiration. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to differentiate between aerobic and anaerobic respiration with respect to the presence or absence of oxygen and the production of ATP. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to create charts showing the similarities and differences among the reactants, products and energy transfer in photosynthesis and respiration. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to find differences between asexual and sexual reproduction. | | | | | | | | | | | | | | | | | | | | | |

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| ■ The learner will be able to find similarities between asexual and sexual reproduction. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to recognize producers, consumers and decomposers in food chains or webs. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to group living things as producers, consumers, or decomposers when provided with their behaviors and environments. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to recognize abiotic and biotic factors in an ecosystem. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to build a model of an ecosystem in order to identify the general conditions required to maintain an ecosystem. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to maintain a model of an ecosystem. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to differentiate between abiotic and biotic components of the environment. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to estimate the age of a fossil when provided with the amount of Carbon 14 atoms and the half-life of C-14. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to distinguish between the relative ages of a variety of fossils in sedimentary rock when provided with an illustration of rock strata. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to find similarities and differences in the processes of fossil formation. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to make pretend fossils utilizing casts and molds. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to deduce which animals or plants are native to an environment when provided with illustrations of various organisms and descriptions of the environment. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to survey or model body plans with asymmetry, radial and bilateral symmetry. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to observe embryos of a variety of vertebrates to liken their early embryonic development to demonstrate relatedness. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to distinguish between selective breeding and natural selection. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to compose a persuasive essay, using current scientific journals to support it, which associates a certain disease with particular lifestyle choices. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to survey or depict the alternation | | | | | | | | | | | | | | | | | | | | | |

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| of generations in a plant or animal species. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to find similarities and differences in the life cycles of a variety of living things to include alternation of generations when provided with pictorial representations. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to research careers that have to do with the study of cells. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to research careers that have to do with diversity. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to research careers that have to do with the environment. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to research careers that have to do with respiration and photosynthesis. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to research careers that have to do with genetics and inheritance. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to research careers that have to do with biological evolution. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to identify the transfer of energy from respiration to cellular work when provided with a diagram or an equation of the ATP cycle. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to explore the role of biomolecules in cell metabolism. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to utilize microscopes to study plant and animal cells. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to prepare wet mount slides. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to prepare a slide utilizing the correct staining technique. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to show the correct care and use of compound light microscopes. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to make a time line that shows the development of microscopes. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to associate a time line showing the development of the microscope with cytology. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to estimate the function of an organ when provided with descriptions of its component tissues. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to estimate the function of a system when provided with descriptions of the properties of its component organs. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to estimate the function of an organ or system when provided with structural descriptions whether in the earthworm, crayfish, frog or | | | | | | | | | | | | | | | | | | | | | |

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| human. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to find similarities and differences in the organs and organ systems of a variety of plant and animal species with respect to their structural parts and functions. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to associate the survival of living things to their behaviors and adaptations. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to associate the learned and innate behaviors of organisms to their survival. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to estimate the kinds of plant and animal life that might be native to a biome by determining the properties of the biome. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to deduce in what biome an animal or plant lives when provided with a description of the organism and illustrations of a variety of biomes. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to depict or create a biome for particular plant and animal species by finding out the requirements of the species. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to recognize the relatedness of species utilizing DNA strands. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to liken homologous structures in species to establish the relatedness of particular species when provided with illustrations of the species. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to estimate how the formation or extinction of a species will be encouraged or discouraged by environmental alterations. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to explore how the emergence of a new species can be affected by natural selection, mutations and adaptations. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to identify the contributions of scientists, including Darwin, that led to the idea of evolution. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to transfer knowledge of divergent evolution to establish why species with shared ancestors have adapted differently when provided with a diagram of the various species. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to provide evidence for evolution utilizing current knowledge of DNA and comparative anatomy. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to analyze the evidence for biological evolution. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to analyze the fossil evidence for | | | | | | | | | | | | | | | | | | | | | |

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| biological evolution. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to explore the forces of natural selection on the development of living things. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to assess the fossil evidence for biological evolution. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to identify the two principal functions of DNA, replication and protein synthesis, when provided with illustrations depicting a strand of bases with a complimentary strand. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to recognize a DNA molecule when provided with a selection between various structural formulas. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to describe replication by utilizing models of DNA and RNA. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to explain how DNA can be interpreted to recognize the individual from whom the DNA came. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to interpret DNA fingerprinting utilizing an illustration of DNA bands. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to explore the structure of DNA. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to explore the molecular makeup of DNA. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to connect the process of replication to the structure of DNA and RNA. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to explore the molecular makeup of RNA. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to explore the structure of RNA. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to liken DNA sequences to establish the relatedness of various living things. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to make a model of DNA. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to create charts showing the similarities and differences in the structure, functions and molecular composition of DNA and RNA. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to interpret various behaviors in order to establish if they are learned or innate. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to explore the behaviors of living things. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to explain the habitat and niche of a living thing in an ecosystem. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to study the impact of human activity on ecosystems. | | | | | | | | | | | | | | | | | | | | | |

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| ■ The learner will be able to investigate how the activities of people change ecosystems. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to recognize the chloroplasts in a leaf. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to recognize basic cell parts. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to investigate the chloroplasts in a leaf. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to explore the structure and function of the biomolecules in cells with respect to cellular processes. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to explore the role of biomolecules in cell structure. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to explore the roles of producers, consumers, and decomposers in an ecosystem. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to show the flow of energy through an ecosystem from the sun to producers, consumers, and decomposers. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to interpret the flow of energy in ecosystems utilizing pyramids of energy and biomass. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to study the flow and loss of energy through the trophic levels of an ecosystem using a sketch of an energy pyramid. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to infer how environmental factors would impact population growth. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to find similarities and difference in analogous and homologous structures of living things to show relatedness. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to deduce the body symmetry of a living thing when provided with an illustration of the living thing. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to identify the types of living things found at the base of a food chain. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to use graphs to analyze population growth curves. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to interpret a graph of the distribution of the population of peppered moths as their environment altered. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to recognize a positive test for carbohydrates and lipids when provided with an experimental procedure, data and results. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to recognize the biomolecules responsible for communicating, regulating or reproducing | | | | | | | | | | | | | | | | | | | | | |

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| ■ The learner will be able to recognize causes of genetic diseases in plants and animals. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to recognize the impact of genetic diseases in plants and animals. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to use Mendel's laws to predict offspring. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to find out the probability of a child having cystic fibrosis, sickle cell anemia or Tay-Sachs if both parents are carriers. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to estimate the genotype and phenotype of a monohybrid cross when provided with a Punnett square. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to interpret a dihybrid cross when provided with a completed Punnett square to find out the probability of a specific trait. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to explore factors that affect the Hardy-Weinberg equilibrium. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to make a monohybrid cross when given a genetic problem to solve. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to make a dihybrid cross and utilize it to estimate genotypic and phenotypic ratios. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to deduce what kinds of living things are indigenous to certain environments in the principal biomes that are on the earth. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to identify the importance of homeostasis to the viability of humans and other living things when provided with the definition of homeostasis. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to estimate the movement of water molecules across the membrane of the cell when provided with various concentrations. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to show the movement of molecules across a semi-permeable membrane. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to differentiate between active and passive transport when provided with examples of various molecules. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to find the genus and species of a living thing using a dichotomous key which includes the descriptions of the property of each classification level. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to classify various organisms by utilizing a dichotomous key and properties of the organisms. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to liken historically relevant | | | | | | | | | | | | | | | | | | | | | |

Curriculum Grade Book

Jefferson County Schools
Final, 05/30/01

Grade 10 Science

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
|--|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
| classification systems utilized in Biology. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to research a position paper defending perspectives on the ethics of a chosen group of DNA technologies. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to model the process of recombinant DNA. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to debate the scientific and ethical issues related to current emerging DNA technologies and/or the Human Genome Project. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to assess current and future DNA technologies, including recombinant DNA, by utilizing an ethical model. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to recognize the sex chromosomes in people. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to describe transcription by utilizing models of DNA and RNA. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to describe translation by utilizing models of DNA and RNA. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to distinguish between transcription and translation when provided with illustrations. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to connect the process of protein synthesis to the structure of DNA and RNA. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to demonstrate various kinds of mutations by manipulating a DNA model. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to estimate the role mutations play in the survival of a population. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to explore causes of mutations. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to explore the impact of mutations. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to interpret a series of DNA bases to establish the sequence which depicts a mutation. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to connect the causes of mutations to alterations in the DNA instructions when provided with illustrations. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to recognize the dominant trait when provided with the results of a monohybrid cross. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to differentiate between dominant and recessive traits when provided with the results of a monohybrid cross. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to establish if an insect undergoes complete or incomplete metamorphosis when | | | | | | | | | | | | | | | | | | | | | |

Curriculum Grade Book

Jefferson County Schools
Final, 05/30/01

Grade 10 Science

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
|--|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|--|
| provided with illustrations of the insect in its stages of development. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to model or survey the stages of complete and incomplete metamorphosis. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to recognize an example of mutualism. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to recognize an example of commensalism. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to recognize an example of parasitism. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to explore the effect of parasites on human population. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to find similarities and differences in various kinds of symbiotic relationships. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to find similarities and differences in the three kinds of symbiotic relationships: parasitism, commensalism and mutualism. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to explore the significance of fermentation to the pharmaceutical, agricultural, and food and beverage industries. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to research the economic and political effect of recycling on nonrenewable resources. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to assess the economic and political effect of recycling on nonrenewable resources. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to explore the structure and function of cell membranes. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to explore the makeup of the cell membrane. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to explore the importance of the cell membrane to homeostasis. | | | | | | | | | | | | | | | | | | | | | |
| Physical Science | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to create a rationale for a classification system for a set of given objects. | | | | | | | | | | | | | | | | | | | | | |
| Research and Inquiry | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to explain the advantages and disadvantages of a variety of kinds of classification systems including the Aristotelian, Linnean and DNA sequencing systems. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to create various systems for classification. | | | | | | | | | | | | | | | | | | | | | |
| ■ The learner will be able to deduce the relatedness of | | | | | | | | | | | | | | | | | | | | | |

