| **Required Course Numbers** | | | | | | | | | | | | | | | |
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| **Test Content Categories** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **I. Earth Science (32%)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A. Understands the structure of the Earth system (e.g., structure and properties of the solid Earth, the hydrosphere, the atmosphere) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| B. Understands processes of the Earth system (e.g., processes of the solid Earth, the hydrosphere, the atmosphere) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C. Understands Earth history (e.g., origin of Earth, paleontology, the rock record) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| D. Understands Earth and the universe (e.g., stars and galaxies; the solar system and planets; Earth, Sun, and Moon relationships) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| E. Understands Earth patterns, cycles, and change |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| F. Understands science as a human endeavor, a process, and a career |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| G. Understands science as inquiry (e.g., questioning, gathering data, drawing reasonable conclusions) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| H. Understands how to use resource and research material in science |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| I. Understands the unifying processes of science (e.g., systems, order, organization) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **II. Life Science (34%)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A. Understands the structure and function of living systems (e.g., living characteristics and cells, tissues and organs, life processes) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| B. Understands reproduction and heredity (e.g., growth and development, patterns of inheritance of traits, molecular basis of heredity) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C. Understands change over time in living things (e.g., life cycles, mutations, adaptation and natural selection) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| D. Understands regulation and behavior (e.g., life cycles, responses to external stimuli, controlling the internal environment) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| E. Understands unity and diversity of life, adaptation, and classification |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| F. Understands the interdependence of organisms (e.g., ecosystems, populations, communities) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| G. Knows about personal health (e.g., nutrition, communicable diseases, substance abuse) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| H. Understands science as a human endeavor, a process, and a career |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| I. Understands science as inquiry (e.g., questioning, gathering data, drawing reasonable conclusions) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| J. Understands how to use resource and research material in science |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K. Understands the unifying processes of science (e.g., systems, order, organization) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **III. Physical Science (34%)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A. Understands the physical and chemical properties and structure of matter (e.g., changes of states, mixtures and solutions, atoms and elements) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| B. Understands forces and motions (e.g., types of motion, laws of motion, forces and equilibrium) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C. Understands energy (e.g., forms of energy, transfer and conservation of energy, simple machines) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| D. Understands interactions of energy and matter (e.g., electricity, magnetism, sound) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| E. Understands science as a human endeavor, a process, and a career |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| F. Understands science as inquiry (e.g., questioning, gathering data, drawing reasonable conclusions) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| G. Understands how to use resource and research material in science |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| H. Understands the unifying processes of science (e.g., systems, order, organization) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |