**Biology I:**

**Areas of Weak Performance**

Standard 14 Organization and Development of Living Organisms.

SC.912.L.14.26 Identify the major parts of the brain on diagrams or models.**SM2**

SC.912.L.14.7 Relate the structure of each of the major plant organs and tissues to physiological processes

SC.912.L.14.3 Compare and contrast the general structures of plant and animal cells. Compare and contrast the general structures of prokaryotic and eukaryotic cells.

SC.912.L.14.36 Describe the factors affecting blood flow through the cardiovascular system.

Standard 15 Diversity and Evolution of Living Organisms.

SC.912.L.15.6 Discuss distinguishing characteristics of the domains and kingdoms of living organisms.

SC.912.L.15.8 Describe the scientific explanations of the origin of life on Earth **SM2**.

Standard 16 Heredity and Reproduction

SC.912.L.16.2 Discuss observed inheritance patterns caused by various modes of inheritance, including dominant, recessive, codominant, sex-linked, polygenic, and multiple alleles. **SM2**

SC.912.L.16.3 Describe the basic process of DNA replication and how it relates to the transmission and conservation of the genetic information

SC.912.L.16.5 Explain the basic processes of transcription and translation, and how they result in the expression of genes.

SC.912.L.16.9 Explain how and why the genetic code is universal and is common to almost all organisms.

SC.912.L.16.10 Evaluate the impact of biotechnology on the individual, society and the environment, including medical and ethical issues.

SC.912.L.16.17 Compare and contrast mitosis and meiosis and relate to the processes of sexual and asexual reproduction and their consequences for genetic variation. **SM2**

Standard 17 Interdependence.

SC.912.L.17.8 Recognize the consequences of the losses of biodiversity due to catastrophic events, climate changes, human activity, and the introduction of invasive, non-native species.

Standard 18 Matter and Energy Transformation

SC.912.L.18.9 Explain the interrelated nature of photosynthesis and cellular respiration.

SC.912.L.18.12 Discuss the special properties of water that contribute to Earth's suitability as an environment for life: cohesive **SM2**

SC.912.L.18.11 Explain the role of enzymes as catalysts that lower the activation energy of biochemical reactions. Identify factors, such as pH and temperature, and their effect on enzyme activity.