

*Essential skills and knowledge for this Davis School District course*

## **Universe and Solar System**

- a. Describe the Big Bang Theory and the evidence that supports it.
- b. Relate the structure and composition of the solar system and universe.

## **Biosphere**

- a. Describe, compare and evaluate the Earth's evolving environment.
- b. Observe, compare and evaluate the biodiversity of Earth over time.
- c. Analyze, predict, and observe ecosystem interactions and changes.

## **Geosphere**

- a. Explain and evaluate the evidence of plate tectonics.
- b. Describe, model, and predict the processes of plate tectonics.

## **Hydrosphere**

- a. Identify, illustrate, and analyze the water cycle.
- b. Analyze the physical and biological dynamics of the ocean.

## **Atmosphere**

- a. Describe, diagram and interpret matter cycles through Earth systems.
- b. Identify and evaluate how the atmosphere has been altered over time.

## **Energy distribution**

- a. Describe, illustrate Selection and use of appropriate scientific instruments and model energy transformation and flow.
- b. Relate how energy sources and transformation affect Earth's systems.

## **Skill acquisition through practice**

- a. Make predictions, design and conduct experiments, and collect data to formulate conclusions.
- b. Construct models to describe concepts and principles.
- c. Compare, contrast and calculate data.
- d. Use precise scientific language in oral and written communication.
- e. Select and use appropriate scientific instruments.