

## **EOCEP Biology**

### **2017 Data Review**

On November 16, 2017 the South Carolina Department of Education convened a panel of experts to review item data on the Spring 2017 End of Course Examination Program in Biology1. The panel looked at items with a high percentage of students answering correctly and items with a low percentage of students answering correctly. The discussions of that panel yielded the following recommendations.

*The panel recognizes the hard work of South Carolina educators and offers the following as suggestions for ways to improve student success.*

#### **For Students:**

- Read questions carefully to clarify what is being asked.
- Read all answer choices before making a selection.

#### **For Teachers:**

- Use data, diagrams, and models with all content.
- Incorporate the science practices in every lesson.
- Spiral and connect learning throughout the year by consistently reviewing previous concepts as they relate to new content.
- Give students frequent opportunities to interpret real data and to write their conclusions and support their conclusions using the data.
- Review the ADP-ATP cycle and emphasize that energy is required to form ATP from ADP and phosphate.
- Instruct students in the smaller metric units such as micro-, nano-, and pico-.
- Focus on medical and agricultural applications of biotechnology.
- Students need to be obtaining and evaluating information on the factors (genetic and environmental) that lead to biological evolution.
- Provide phylogenetic trees for interpretation or have students generate their own based on collected information.
- Emphasize function as it relates to structures in the cell.
- Emphasize the role of proteins.