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 phylogenic 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.