



Oxford City Schools

Proficiency Scale

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GRADE LEVEL: 10th - 12 Grade

COURSE NAME: AP Biology

MEASUREMENT TOPIC: MT 9 Interpret and Evaluate Experimental Results with Graphing

4

In addition to Score 3, the student makes in-depth inferences and applications.

- Justify predictions related to experimental design scenarios.

3

- **Predict the outcomes or results of the experiment that would support or refute each hypothesis, including the null and alternative hypothesis.**
- **Analyze data for patterns, trends, relationships between variables, and specific data points of interest.**
- **Construct graphical representations of data including,**
 - error bars, representing ± 2 SEM (standard errors of the mean)
 - data
 - X and Y axes, with appropriate labels, units, and scaling

2

- **Construct null and alternative hypotheses aligned to testable questions.**
- **Justify the use of an appropriate control within an experiment.**
- **Pose testable scientific questions, and identify experimental design procedures.**

1

With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.

Key Vocabulary: independent variable, dependent variable, constants, negative control, positive control, null hypothesis, alternative hypothesis, error bars, line of best fit, extrapolate, interpolate