



Oxford City Schools

Proficiency Scale

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GRADE LEVEL: 10-12 COURSE NAME: Chemistry
MEASUREMENT TOPIC: Use Models to Explain Chemical Reactions

4

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

3

The student can:

- **Construct explanations using various models of chemical reactions that satisfy the Law of Conservation of Mass**
- **Use models to represent chemical reactions that satisfy the Law of Conservation of Mass**

2

The student can:

- Use reasoning to balance chemical reactions to satisfy the Law of Conservation of Mass
- Analyze data and interpret how the factors affect the rate of chemical reactions
 - Bond Energy
 - Temperature (endo/exothermic)
 - Collision Theory (particle size, concentration, catalyst)
- Classify types of chemical reactions based on reactants and products

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: Law of Conservation of Mass, Synthesis, Decomposition, Combustion, Single Replacement, Double Replacement, Catalyst, Endothermic and Exothermic