



Oxford City Schools

# Proficiency Scale

Are you looking for resources to help your child? [Click Here](#)

**GRADE LEVEL: 9    COURSE NAME: Biology**  
**MEASUREMENT TOPIC: Use Models to Illustrate Energy Conversions**

<b>4</b>	In addition to Score 3, the student makes in-depth inferences and applications. <ul style="list-style-type: none"><li>• Predict the effect of a change in a factor that influences cellular respiration or photosynthesis.</li></ul>
<b>3</b>	The student can: <ul style="list-style-type: none"><li>• Use models of the reactants and products of photosynthesis to illustrate the conversion of light energy into stored chemical energy within cells.</li><li>• Use models of the reactants and products of cellular respiration (both aerobic and anaerobic) to illustrate how chemical energy is stored in the bonds of carbohydrates and lipids and converted to ATP and heat when the bonds are broken.</li></ul>
<b>2</b>	The student can: <ul style="list-style-type: none"><li>• Plan and carry out investigations and utilize results to explain the role and cycling of products and reactants involved in the cellular conversion of energy.</li><li>• Identify the reactants and products of photosynthesis and cellular respiration.</li></ul>

**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:**