

**Physical Science – Understanding Your Child’s Performance:** Below is a summary of skills and knowledge students must demonstrate to achieve each performance level. A student should demonstrate mastery of knowledge and skills within his/her achievement level *as well as* all content and skills that precede it. For example, a Proficient Learner should also possess the knowledge and skills of a Developing Learner *and* a Beginning Learner.

	Beginning Learner	Developing Learner	Proficient Learner	Distinguished Learner
<b>Physical Science</b>	<p>In general, your child can:</p> <ul style="list-style-type: none"> <li>recognize the differences between atoms and molecules</li> <li>locate metals, nonmetals, and metalloids in the Periodic Table of Elements</li> <li>describe the movement of particles in solids, liquids, gases, and plasmas</li> <li>describe the Law of Conservation of Matter</li> <li>recognize the parts and characteristics of waves</li> <li>describe energy transformations</li> <li>identify simple machines that make work easier</li> <li>determine what produces electricity</li> <li>recognize that data provides support for scientific claims</li> </ul>	<p>In general, your child can:</p> <ul style="list-style-type: none"> <li>recognize and label the structure of an atom</li> <li>recognize that the Periodic Table of Elements arranges elements by properties</li> <li>recognize similarities and differences among solids, liquids, gases, and plasmas</li> <li>describe the three types of energy transfer (radiation, conduction, and convection)</li> <li>recognize factors that affect the rate at which objects dissolve</li> <li>identify energy transformations</li> <li>describe electromagnetic and mechanical waves</li> <li>use data to support scientific claims</li> </ul>	<p>In general, your child can:</p> <ul style="list-style-type: none"> <li>examine the structure of an atom</li> <li>recognize different atomic bonds</li> <li>explain radioactive decay</li> <li>recognize the forces that affect gases</li> <li>use math to analyze data</li> <li>use the Periodic Table of Elements to predict properties of elements</li> <li>apply the Law of Conservation of Matter in a chemical reaction</li> <li>compare acids and bases</li> <li>recognize reflection, refraction, interference, and diffraction</li> <li>apply Newton’s three laws of motion to everyday situations</li> <li>identify AC and DC currents</li> <li>describe an electromagnetic wave</li> </ul>	<p>In general, your child can:</p> <ul style="list-style-type: none"> <li>describe nuclear energy</li> <li>describe the elements of radiation</li> <li>compare solutions in terms of concentration and conductivity</li> <li>describe molecular motion</li> <li>explain magnetism and its relationship to the movement of electrical charges</li> <li>compare and contrast characteristics of electromagnetic and mechanical waves</li> <li>recognize the relationship between specific heat capacity and change in temperature</li> <li>determine which machine would have the greatest advantage</li> <li>make inferences based on analysis of data to identify the relationship between mass and gravitational force for falling objects</li> <li>predict outcomes given series and parallel circuits</li> </ul>