

### 5<sup>th</sup> Grade Learning Progression Scales

<b>Learning Goal:</b>	<b>For students to be able to understand, demonstrate, and explain the various ways electrical energy can be transformed into heat, light, sound, and motion energy</b>	
<b>Standard(s):</b>	<b>SC.5.P.10.4: Investigate and explain that electrical energy can be transformed into heat, light, and sound energy, as well as the energy of motion (DOK Level 3: Strategic thinking and complex reasoning)</b>	
<b>Scale</b>		<b>Sample Progress Monitoring Assessment Activities</b>
4.0	In addition to 3.0, in-depth inferences and applications that go beyond what was taught the student is able to: I can analyze amounts of electrical energy needed to transform into heat, light, or sound energy by creating a working model. I can analyze my model and determine if improvements can be made.	Students will work in small groups, designing, testing, and redesigning a water heater using common materials. Design Squad: Feel the Heat (Resource ID 8921)
3.0 Target	The student understands and is able to: I can investigate and explain that electrical energy can be transformed into heat, light, and sound energy, as well as the energy of motion. The student exhibits no major errors or omissions.	Students will give examples of heat energy, light energy and sound energy and explain how electrical energy is transformed in each example they give. Students will also explain potential and kinetic energy as related to the energy of motion caused by electrical energy
2.0	There are no major errors or omission regarding the simpler details and processes; however, the student exhibits major errors or omissions regarding the more complex ideas and processes.  The student is able to: I can identify examples of electric energy as well as explain how electricity can produce heat, light, and sound	Using an example of heat, light, or sound energy, the student can explain how the electrical energy was transformed into a different type of energy.
1.0	With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes the student is able to: With help I can correctly identify examples of heat, light, and sound energy	Students can correctly match heat, light, and sound energy to graphics of each one, using graphics of examples and non-examples