Science Learning Progression

Grade: Middle School

Prerequisite skills/knowledge:

4-5 PS3A *Energy* has many forms, such as *heat*, light, sound, *motion*, and electricity.

4-5 PS3B *Energy* can be *transferred* from one place to another.

4-5 PS3E Electrical *energy* in *circuits* can be changed to other forms of energy, including light, *heat*, sound, and *motion*. *Electric circuits* require a complete loop through conducting materials in which an electric current can pass.

Sub skill/knowledge:

Energy exists in many forms which include: Heat, light, chemical, electrical, motion of objects, and sound.

Sub skill/knowledge:

Energy can be transformed from one form to another.

Sub skill/knowledge:

Energy can transferred from one place to another.

Sub skill/knowledge:

Energy from a variety of sources can be transformed into electrical energy, and then to almost any other form of energy.

Sub skill/knowledge:

Electricity can be distributed quickly to distant locations.

Big Idea Standard 6-8 PS3A&E

Energy exists in many forms which include: heat, light, chemical, electrical, motion of objects, and sound.

Energy can be transformed from one form to another and transferred from one place to another.

Later big ideas that build on this big idea include:

9-11 PS3A Energy can be *transferred* or *transformed* but not created or destroyed.

