

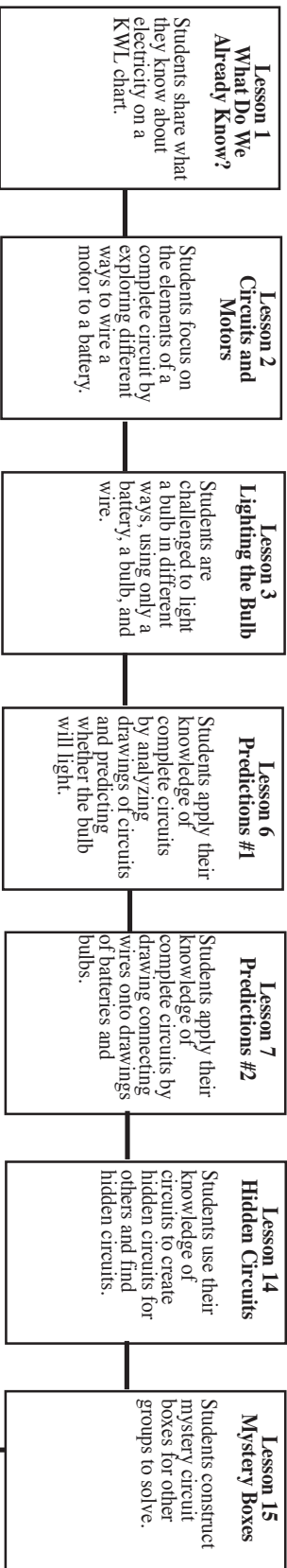
# Circuits and Pathways Conceptual Story

Insights - Grade 4

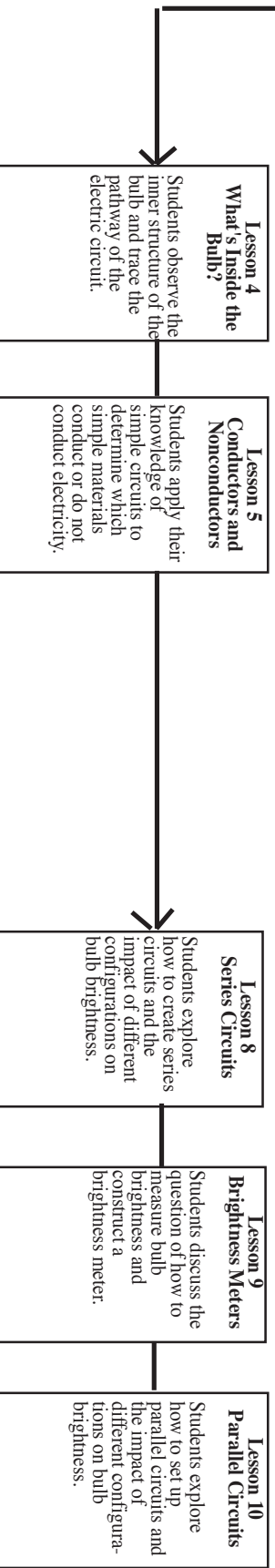
**K-12 Unifying Concept:** Our physical world is made of substances, materials, and objects that can be identified by their unique properties, and is organized into systems that are interconnected. Interactions within and among systems cause changes in matter and energy.

**Fourth Grade Level Concept:** In order to convert the chemical energy in a battery into light, a complete circuit of conducting material is needed.

**Sub-concept:** Current electricity requires a complete circuit in order to work.



**Sub-concept:** Some materials allow current to flow easily (conductors); some do not (insulators).



**Sub-concept:** Series and parallel are kinds of circuits with different characteristics.

**Sub-concept:** Switches and fuses are components of circuits.

