

**Academic Standards for Science and Technology
Magic of Electricity/Electric 1**

<i>Lesson/Chapter Objectives</i>	<i>Academic standards</i>	<i>Grade Level</i>	<i>Activity to Achieve Objective</i>
Chapter One			
Plugging in		4	Identify how you use Electricity (Appreciating Electricity)
Bright lights	3.4.4B: Apply knowledge of basic electrical circuits to design and construct simple direct circuits	4	Build a flash light/Wiring a simple circuit
Chapter Two			
Control the flow	3.4.4B: Apply knowledge of basic electrical circuits to design and construct simple direct circuits	4	Build and test a switch. Compare open and closed switches
Circuit sense		4	Identify closed and open circuits
Conducting things	3.4.4B: Classify materials as conductors and non-conductors	4	Identify conductors of electricity. Testing materials for electrical conductivity.
Is there a fork in the road?	3.4.4B: Apply knowledge of basic electrical circuits to design and construct simple direct circuits	4	Discover parallel and series circuits.
Chapter Three			
May the Force be with you	3.4.4C:Recognize forces that attract or repel	4	Test and classify material. Understanding magnetism.
Attract or Repel	3.4.4C:Recognize forces that attract or repel	4	Determine North and South Poles of magnets
Earth Attractions	3.4.4C:Recognize forces that attract or repel	4	Build and test a compass. Understanding earth's magnetic poles.
Chapter Four			
Electric attractions	3.4.4C:Recognize forces that attract or repel	4	Build an Electromagnet
Make it Spin		4	Build an electric motor. Transferring energy into motion.