

Student Science Skills Checklist (Correlated to CRCT)

Grade: <u>Fourth</u>	Strand: <u>Physical Science</u>	Unit: <u>Magnetism and Electricity</u>
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QCC Objectives: S.4.5-S.4.11 (15%)



Student is able to:

_____ Define:

closed circuit
compass
complete circuits
conductor
current electricity
electromagnet
insulator
magnetism
open circuit
parallel circuit
series circuits
static electricity

Essential Questions:

What makes a thing magnetic?
 How can you make a compass?
 What is electricity?
 What is the relationship between electricity and magnetism?
 How does a statically charged object affect other objects?
 How can you make a complete circuit that will light a bulb?
 How does chemical energy change into electrical energy?
 What materials will conduct electricity?
 How does the flow of electricity in a series circuit differ from the flow in a parallel circuit?
 How have electrical inventions changed the way we live?

- _____ Identify cardinal directions (N, S, E, W)
- _____ Identify intermediate directions (NE, NW, SE, SW)
- _____ Demonstrate how to use a compass
- _____ Explain why the needle of the compass point toward magnetic north unless affected by an outside force
- _____ Explain the effect magnetism has on a compass
- _____ Relate directions determined with a compass to a map
- _____ Understand the magnetic relationship that results in repelling and attracting forces
- _____ Identify the characteristics of a simple electromagnet
- _____ List examples of a conductor
- _____ List examples of an insulator
- _____ Identify common examples of static electricity
- _____ Identify common examples of current electricity (complete circuits, ringing doorbell)
- _____ Differentiate among examples of open, closed, parallel and series circuits
- _____ Identify sources of electricity (batteries, generators, photoelectric cells)
- _____ Recognize sources of energy that can be transformed into electric energy (moving water, solar energy, fossil fuels, wind, nuclear energy)
- _____ Describe how electrical energy travels from its source (power plant) to the consumer
- _____ Understand that household electricity is measured by a meter and how to read a meter
- _____ Describe appropriate ways to use electricity safety
- _____ Recognize electrical safety hazards
- _____ Describe what it would be like to live without electricity

4th Grade