

LINCOLN PUBLIC SCHOOLS
Science Learning Expectations: Grade 3

<p>PHYSICAL SCIENCE <i>Magnetic Properties</i></p>	<p>Big Ideas:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Without touching them, a magnet pulls on all things made of iron and either pushes or pulls on other magnets.
<div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>Massachusetts Standard(s): <i>-Recognize that magnets have poles that repel and attract each other.</i></p> </div> <p><i>-Identify and classify objects and materials that a magnet will attract and objects and materials that a magnet will not attract.</i></p>	<p>Key Outcomes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Students will understand that magnets can produce motion by attracting some materials (e.g., steel) and have no effect on others (e.g., plastic) by demonstrating and describing the differences between magnetic and non-magnetic objects.
	<p>Essential Knowledge and Skills: <i>Students will know...</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> How to use scientific inquiry* to access, explore and explain their understanding of core knowledge <input type="checkbox"/> Those magnets can produce motion by attracting some materials (e.g., steel) and have no effect on others (e.g., plastics) <input type="checkbox"/> That forces can act at a distance <input type="checkbox"/> Magnets can be used to make some things move without being touched <input type="checkbox"/> All magnets, and thus all compasses, have a north-south seeking pole. <input type="checkbox"/> A magnet is an object that can push or pick up materials made of iron, steel, or nickel; magnet is made of these same materials <input type="checkbox"/> Objects that are attracted by magnets have similar properties <input type="checkbox"/> Every magnet has two places where its strength is concentrated <input type="checkbox"/> A magnet that is free to turn will come to rest with its poles aligned in a north-south direction <input type="checkbox"/> Unlike poles of a magnet attract each other; like poles of a magnet repel each other <input type="checkbox"/> Magnet can be made from a steel object by striking it with a magnet. <input type="checkbox"/> Once magnetized, a piece of steel can remain magnetized indefinitely <p><small>*Scientific Inquiry Standards are embedded in each unit of study.</small></p>