



Activity Booklet Scope & Sequence

Kinetic Magnetics® Wave Wires® Magnet Set (#731110)

Front Matter:

- Safety
- Tips for Use

Activities (and activity answers):

Activity 1 Attract & Repel	Science Concepts & Skills: <ul style="list-style-type: none"> · Forces & motion · Attraction · Repulsion · Poles/Polarity · Properties of materials · Cause & effect · Compare & contrast
Activity 2 Make a Compass	Science Concepts & Skills: <ul style="list-style-type: none"> · Forces & motion · Attraction · Repulsion · Poles/Polarity · Earth as a magnet · Cause & effect · Integration of math (measurement)
Activity 3 Perpetual Notions	Science Concepts & Skills: <ul style="list-style-type: none"> · Forces & motion · Attraction · Repulsion · Gravity, weight, & balance · Energy · Collect, analyze, & interpret data · Cause & effect · Compare & contrast · Integration of math (measurement & data)
Activity 4 Dangling Challenge	Science Concepts & Skills: <ul style="list-style-type: none"> · Forces & motion · Attraction · Temporary magnetism · Properties of materials · Cause & effect · Collect, analyze, & interpret data · Compare & contrast · Integration of math (data)
Activity 5 Wiggle Wires	Science Concepts & Skills: <ul style="list-style-type: none"> · Forces & motion · Attraction · Repulsion · Gravity, weight, & balance · Energy · Oscillations · Cause & effect · Integration of math (measurement)
Activity 6 Earthquake-Resistant Structures	Science Concepts & Skills: <ul style="list-style-type: none"> · Forces & motion · Attraction · Repulsion · Energy · Collect, analyze, & interpret data · Cause & effect · Compare & contrast · Properties of materials · Engineering · Integration of math (measurement & data)



Teacher's Guide Scope & Sequence

Kinetic Magnetics® Wave Wires® Magnet Station (#731111)
 Kinetic Magnetics® Wave Wires® Magnet Station Pack (#731112)

Front Matter:

- Safety Instructions
- About This Kit
- Educational Standards
- Tips for Use
- Station Assembly
- Activity Materials (included)
- Activity Materials Needed (not included)

Lessons:

Lesson 1 Attract & Repel	Science Concepts & Skills: <ul style="list-style-type: none"> • Forces & motion • Attraction • Repulsion • Poles/Polarity • Properties of materials • Cause & effect • Compare & contrast
Lesson 2 Viewing Magnetic Fields	Science Concepts & Skills: <ul style="list-style-type: none"> • Forces & motion • Attraction • Repulsion • Poles/Polarity • Magnetic fields • Integration of art • Engineering & technology • Cause & effect • Patterns • Integration of math (measurement)
Lesson 3 It's Alive!	Science Concepts & Skills: <ul style="list-style-type: none"> • Forces & motion • Attraction • Repulsion • Poles/Polarity • Magnetic fields • Integration of math • Properties of materials • Cause & effect • Compare & contrast
Lesson 4 Magnetism Matters	Science Concepts & Skills: <ul style="list-style-type: none"> • Forces & motion • Attraction • Kinetic energy • Properties of materials • States of matter • Cause & effect • Compare & contrast
Lesson 5 Science Friction	Science Concepts & Skills: <ul style="list-style-type: none"> • Forces & motion • Stability • Friction • Gravity • Electromagnetic force • Attraction • Cause & effect • Compare & contrast

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<p>Lesson 6 Pinball Machine</p>	<p>Science Concepts & Skills:</p> <ul style="list-style-type: none"> · Forces & motion · Attraction · Repulsion · Energy · Engineering & technology · Cause & effect · Integration of math (measurement)
<p>Lesson 7 Full STEAM Ahead!</p>	<p>Science Concepts & Skills:</p> <ul style="list-style-type: none"> · Forces & motion · Attraction · Engineering & technology · Integration of art · Properties of materials · Cause & effect
<p>Lesson 8 Dangling Challenge</p>	<p>Science Concepts & Skills:</p> <ul style="list-style-type: none"> · Forces & motion · Attraction · Temporary magnetism · Magnetic fields · Newton's third law of motion · Properties of materials · Engineering & engineering design · Cause & effect · Collect, analyze, & interpret data · Integration of math (data) · Compare & contrast
<p>Lesson 9 Tricks on a Bridge</p>	<p>Science Concepts & Skills:</p> <ul style="list-style-type: none"> · Forces & motion · Cause & effect · Engineering & engineering design · Attraction · Collect, analyze, & interpret data · Integration of math (measurement & data) · Compare & contrast
<p>Lesson 10 Make a Compass</p>	<p>Science Concepts & Skills:</p> <ul style="list-style-type: none"> · Forces & motion · Attraction · Repulsion · Poles/Polarity · Earth as a magnet · Human impacts on Earth · Climate change · Cause & effect · Compare & contrast · Integration of math (measurement)

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<p>Lesson 11 Earthquake-Resistant Structures</p>	<p>Science Concepts & Skills:</p> <ul style="list-style-type: none"> · Forces & motion · Attraction · Repulsion · Energy · Waves · Earth & human activity (earthquakes) · Collect, analyze, & interpret data · Cause & effect · Compare & contrast · Properties of materials · Engineering & engineering design · Integration of math (measurement & data)
<p>Lesson 12 Perpetual Notions</p>	<p>Science Concepts & Skills:</p> <ul style="list-style-type: none"> · Forces & motion · Attraction · Repulsion · Gravity, weight, mass, & balance · Newton's second law of motion · Energy · Collect, analyze, & interpret data · Cause & effect · Compare & contrast · Integration of math (measurement, operations, & data)
<p>Lesson 13 Wiggle Wires</p>	<p>Science Concepts & Skills:</p> <ul style="list-style-type: none"> · Forces & motion · Attraction · Repulsion · Poles/Polarity · Gravity, weight, & balance · Oscillations · Waves · Energy · Cause & effect · Compare & contrast
<p>Lesson 14 Stop the Train!</p>	<p>Science Concepts & Skills:</p> <ul style="list-style-type: none"> · Forces & motion · Attraction · Repulsion · Eddy currents, Lenz's Law, & conductors · Engineering & technology · Integration of math (measurement) · Cause & effect · Compare & contrast · Properties of materials

Answers