

**Sample Syllabus
(Elementary Grades)**

	Lesson	Materials	Objective
Week One:	Snap Circuits	Snap Circuits	Introduce students to electricity & circuits. Students should understand how to build a complete circuit and where the power is coming from.
Week Two:	6-in-1 Solar	6-in-1 solar kits, screwdrivers, solar lamp	Discuss alternative energy sources, including solar power. Complete build of 6-in-1 solar kit.
Week Three:	Windup Ostrich	Windup ostrich kits, screwdrivers, batteries, side cutters	Continue discussion of alternative energy, including dynamos (hand cranks). Begin windup ostrich kit build.
Week Four:	Windup Ostrich	Windup ostrich kits, screwdrivers, batteries, side cutters	Continue windup ostrich kit build. Make sure students understand the mechanics of the gearboxes.
Week Five:	Windup Ostrich	Windup ostrich kits, screwdrivers, batteries, side cutters	Complete windup ostrich kit build. Troubleshoot any non-working robots, teaching students how to look for solutions
Week Six:	K'Nex	K'Nex	Students should understand scale and how to match actual parts to images in a diagram.
Week Seven:	Push Button Robot	Push button robot kits, screwdrivers, batteries	Discuss robot programming. Begin push button robot build.
Week Eight:	Push Button Robot	Push button robot kits, screwdrivers, batteries	Complete push button robot build. Experiment with programming using worksheet
Week Nine:	Tin Can Robot	Tin can robot kits, screwdrivers, batteries	Discuss how "found" objects can be incorporated into robotic design. Complete tin can robot build.
Week Ten:	Remote Control Machines	Remote Control Machines	Students should understand how the same parts can be used to create different end products. Discuss the mechanics of robotic movement.