Year at a Glance – 3rd Grade

	Science Curriculum				Extensions
6 weeks	Science Topics	TEK Objective	Concepts to Learn	Vocabulary	Lab/ Activities
1st	Lab Safety Life Cycles of Animals and Animal Adaptations	3.1 (a) 3.4 (b) 3.9(a, b) 3.3(c, d, e) 3.2(c, e) 3.10(b) 3.10 (c)	1) Safe practices during field & lab investigations 2) How to use lab tools such as: microscopes, cameras, safety goggles, clock, computers, thermometers, hand lenses, meter sticks, rulers, balances, magnets, and compasses. 3) Organisms have characteristics that help them survive. 4) Changes in a food chain can affect the ecosystem.	calculators ,microscopes, safety goggles, thermometers, hand lens, meter sticks, balances, magnets, compasses, adaptation, trait camouflage, habitat, classify, hibernate, migrate predator, prey	1) Paper Bag Science Lab Safety rules activity 2) Scientific Tool Scramble 3) Animal adaptation- different beaks for different birds 4) Charting the migration of hummingbirds using the Journey North website. 5) Foss: Structures of Life- Crayfish Habitats
2nd	Earth Materials: Rocks, Minerals, and Soil	3.7 (a) 3.11 (a) 3.11(b)	1) An earth material has properties that can be observed and described-such as color, shape, and texture. 2) A rock is an earth material composed of different ingredients called minerals. 3) A mineral is a basic earth material that cannot be broken down any further. 4) Hardness, a mineral property, is the resistance of a mineral to being scratched. 5) Soil particles differ in size such as large in gravel, to medium such as sand, to small such as clay.	rock, mineral, dissolve, geology, property, circumference, diameter, depth, meter tape, balance, mass, clay, gravel, sand, quartz, fluorite, gypsum, loam, peat	1) *FOSS- Earth Materials Investigating Mock Rocks 2) Taking Rocks Apart* 3) Observing Crystals * 4) What Makes Soil? (AIMS- Overhead and Underfoot)
3rd	Weather Water Cycle Recycling	3.7(a, b) 3.4(a) 3.2(a) 3.7(a) 3.8(c) 3.5 (c)	1) Air temperature can be measured with a thermometer. 2) Cycles occur in nature such as: the seasons and the water cycle. 3) Water can change into different states of matter through the processes of condensation and evaporation. 4) Types of clouds are associated with different types of weather.	air pollution, air pressure, axis, barometer, cirrus clouds, condensation, cumulus clouds, dew, equator, evaporation, humidity, mass, matter, nimbostratus clouds, precipitation, stratus clouds, thermometer, water cycle, water vapor, weight	1) Make a rain gauge. 2) Use weather station to graph patterns in precipitation, wind, sun, and cloud cover. 3) Tornado in a Bottle 4) Create a barometer with a balloon, jar, straw, and rubber band and observe air pressure patterns over a period of 10 days.
4th	Matter and Mass Forces and Motion	3.6 (a) 3.7 (a) 3.2 (b) 3.4 (a) 3.7 (b)	1) A push or a pull is a force. 2) Mass is measured in units of grams or kilograms using a balance. 3) Magnets pull or attract certain metals, magnets use force. 4) Friction is the force that causes objects to slow down or stop. 5) Matter comes in three forms: solid, liquids, gas. 6) Changes in energy (heat, for example) cause changes in the state of matter. The molecules in matter are always moving. Their speed changes when they are heated or cooled. If a substance is heated or cooled enough, it changes state	friction, force, magnetism, gravity, mass, push, pull, attract, repel matter. mass, solid, liquid, gas, molecules, transparent, translucent, colored, opaque, viscous, bubbly, foamy, volume, molecules, north pole, south pole, iron, inertia, newtons, temporary magnetism, induced magnetism	1) Aims Book: Popping with Power Activity- Catapults pg. 40 2) Activity- A First Class Job (pg.49) Activity- Fulcrums on the Move 3) Foss: Magnetism and Electricity- Investigation 1: The Force 4) Inertia demonstration and experiment: The Spinning Egg- raw vs. hard boiled.

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5th	Plants Hydroponics Simple Machines	3.10 (a) 3.6 (b) 3.10 b)	1) A lever, a wheel and axle, and a pulley are simple machines that change the directions of the force needed to start or stop an object. 2) Inclined planes can be used to move heavy objects. 3) Living things grow and change. Nonliving things do not grow and change. 4) The parts of a plant use food, water and air to grow and change. 5) Plants can be classified by their similarities and differences. 6) The four main parts of a plant are: roots, stems, leaves and flowers. 7) The plant wouldn't be able to make food if it didn't have leaves.	Living, nonliving, plant, leaf, pistil, soil, stamen, pollen, pollination, stigma, stem, roots, flower, petal, xylem, phloem, seed, seed coat, seedling, germinate, nutrients, hydroponic, lever, fulcrum, inclined plane, pulley, screw, wheel and axle	1) FOSS: Structures of Life Investigation 1: Origin of Seeds 2) Foss: Investigation 2- Growing Further 3) Foss Kit- Construct 3 or 4 wheel carts using wheels and axles, then test their mobility on an inclined plane.
6th	Solar System/ Planets	3.3 (c) 3.8 (b) 3.8 (c)	1) Day and night are caused by the earth's rotation. 2) Seasons are caused by earth's rotation and tilt. 3) The moon moves and changes by its orbit around the earth, and the orbit seems to change the way it looks. 4) The moon looks like it has it's own light because the sun's light reflects off of the moon. 5) We can see constellations and comets in the night sky.	Solar system, moon, solar energy, constellation, rotation, orbit, season, axis, Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune, satellite	1) Planet Brochures 2) Planet Riddles 3) Solar System Cookies