

## Children's Community Charter School STEAM Program

	Kindergarten	1 <sup>st</sup> Grade	2 <sup>nd</sup> Grade	3 <sup>rd</sup> Grade
<b>Science</b>	<p><b>Earth Science:</b> Land, Water, Air, &amp; Weather  <b>Physical Science:</b> Matter, Water  <b>Life Science:</b> Plants, Animals  <b>Scientific Process</b></p>	<p><b>Earth Science:</b> Weather-observe, measure &amp; describe  <b>Physical Science:</b> Solids, liquids &amp; gases  <b>Life Science:</b> Plants &amp; animals meet their needs in different ways  <b>Scientific Process</b></p>	<p><b>Earth Science:</b> Rocks, soil, fossils &amp; resources  <b>Physical Science:</b> Objects in motion; Forces at Work; Magnets; Sound  <b>Life Science:</b> Life cycles of plants &amp; animals  <b>Scientific Process</b></p>	<p><b>Earth Science:</b> Earth, Sun, Moon &amp; Stars  <b>Physical Science:</b> Energy, matter, light, &amp; elements  <b>Life Science:</b> Adaptations  <b>Scientific Process</b></p>
<b>Technology</b>	<p>Click an icon with a mouse;            Strike the correct key to the letter or number requested;            Use the arrow keys to move a cursor left, right or up, down;            Use the Enter key to start a new line</p>	<p>Use the double-click action to open a program; Use the Shift keys to capitalize letters and create punctuation symbols; Use the Delete key to erase characters to the right of the cursor; Use the Backspace key to erase the characters to the left of the cursor; Identify a computer, monitor, mouse, keyboard, window, cursor, icon, menu</p>	<p>Open pull down menus in a program with a mouse; Select commands from pull down menus; Add clipart or photo images to enhance a piece of writing; Save files to a specified location</p>	<p>Type with both hands anchored from "home row" position;            Use the thumb (right thumb traditionally) to add spaces between words or sentences;            Exhibit correct posture.            Produce a 1-page document that combines good use of fonts, colors, and graphics</p>
<b>Engineering</b>	<p>Legos; Wooden blocks; popsicle sticks; Lincoln Logs; Plastic Building Shapes</p>	<p>The Best of Bugs: Designing Hand Pollinators            A Work in Progress: Improving the Play Dough Process</p>	<p>Catching the Wind: Designing Windmills            To Get to the Other Side: Designing Bridges</p>	<p>Now You're Cooking: Designing Solar Ovens            Water, Water Everywhere: Designing Water Filters</p>
<b>Arts</b>	<p><b>Art:</b> Abstract shape/pastel resists, shape mosaics, line drawings in finger paint, Seurat warm/cool color paintings, animal creations in model magic, Goyatoku fish prints, tempera leaf prints, spider in a web crayon resist, Monet water lily prints, Rousseau jungle tissue paper prints, bird directed drawings, City at Night collage, Abraham Lincoln paper collage portraits  <b>Music:</b> Steady beats, pitch, rhythmic &amp; melodic, listening/following, long/short vowel sounds in songs, fast/slow, loud/soft, body percussion, movement to rhythm &amp; songs, sign language with selected songs, dynamics in songs &amp; music, learning new songs, performing as a solo/duo/trio/quartet, using numbers &amp; letters in songs, instruments: use, care, playing, idea of major scale  <b>Drama:</b> Movement &amp; Expression</p>	<p><b>Art:</b> Circus clowns in watercolor/ink, Van Gogh sunflower watercolor/pastel resist, ceramic pinch pots, ceramic animal palm creatures, story book based on <u>Harold and the Purple Crayon</u>, lion directed drawings, create-a-scene Collagraph prints, paper bag haunted houses, Poinsettia flower sponge painting, color wheel flowers, Eric Carle inspired collages, pumpkin patch drawing, George Washington paper collage portraits, group mural paintings  <b>Music:</b> Rhythms (intro of ¼ note, 1/8 notes for rhythm, major scale vs. minor scale (sound &amp; mood differences, timber high &amp; low melodies, dynamics in a song, music listening &amp; appreciation (new songs, other cultures/genres of music), instruments (wood, metal, shakers, membrane, etc.): use, care, playing, found sounds vs. vocal sounds, solos/duets/trios/quartets/group singing, music alphabet, tempo, singing posture &amp; breath support, melodic patterns in music, recognizing 4/4 vs. 3/4 rhythms, meter do/re/mi music &amp; art (drawing to a piece of music)  <b>Drama:</b> Rainforest Musical</p>	<p><b>Art:</b> Matisse inspired windows, Hmong design collage and play, feeling faces in watercolor/ink, ceramic turkeys, 3D stage paper dioramas, clay animals, Santa drawings, live model drawing/paintings, Farmer's Market still life, fairy tale puppets, castles in tempera/ink, leaf drawings in watercolor/pastel resist, googly-eyed monsters, Dr. Seuss characters, Georgia O'Keefe tissue paper flowers  <b>Music:</b> Rhythms (recognizing, following, creating), intervals, basic in reading music (clefs, ¼ notes, ½ note, dotted notes, rests, measures, time, signature, etc.), pentatonic scale, dynamics, finding pitch &amp; melodies on melodic instrument, sound, orchestra, rounds, cannons, 2 part singing, call &amp; response, performance study, movement &amp; singing  <b>Drama:</b> Fairy Tale skits</p>	<p><b>Art:</b> Indian clay rattles, Native American rawhide pictographs, space rovers 3D scenes, fairytale faces, leaf print Haikus, chalk camouflaged amphibians, paper flowers, clay insects, people in motion stenciled drawings, contour drawing/stage portraits, square pinch pots, ceramic poinsettia dishes, Wayne Thiebold cakes, Faith Ringgold dream drawings  <b>Music:</b> basic notation, repeat signs in notation, music terminology, chords, triads, keyboard, ukulele, music appreciation, song creation within specific parameters (solo, duet, trio), metronome, soprano, tenor, alto, bass  <b>Drama:</b> Reader's Theatre</p>
<b>Mathematics</b>	<p>Go Math Curriculum</p>	<p>Go Math Curriculum            Rocket Math</p>	<p>Go Math Curriculum            Rocket Math            Principal's Math Challenge</p>	<p>Go Math Curriculum            Rocket Math            Principal's Math Challenge</p>

	4 <sup>th</sup> Grade	5 <sup>th</sup> Grade	6 <sup>th</sup> Grade	7 <sup>th</sup> Grade	8 <sup>th</sup> Grade
<b>Science</b>	<p><b>Earth Science:</b> Properties of rocks &amp; minerals; Changes in Earth's surface</p> <p><b>Physical Science:</b> Electricity &amp; Magnetism</p> <p><b>Life Science:</b> Organisms, matter, &amp; the Environment</p> <p><b>Scientific Process</b></p>	<p><b>Earth Science:</b> Evaporation &amp; Condensation; Weather patterns, The Solar System</p> <p><b>Physical Science:</b> Elements &amp; Matter</p> <p><b>Life Science:</b> Body systems &amp; plant structures</p> <p><b>Scientific Process:</b> Science Fair Project</p> <p><b>CSUC Hands-on Science Lab</b></p>	<p>The Tools of Science; The Four Spheres of the Earth; Plate Tectonics; Volcanoes &amp; Earthquakes; Formation &amp; Erosion; Earth's Systems &amp; Cycles; Energy Resources; Material Resources; Weather &amp; Climate</p> <p>6<sup>th</sup> Grade Environmental Camp at Shady Creek</p>	<p>The Tools of Science; Electromagnetic Spectrum; Cell Theory; Photosynthesis; Heredity; Genetics; Classification; Human Body Systems</p> <p>Field Trip to California Academy of Sciences</p>	<p>The Tools of Science; Density/Buoyancy; The Structure of Matter; States of Matter; Elements, Compounds, &amp; Mixtures; The Atom; Chemical Reactions; Intro to Organic Chemistry; Forces &amp; Motion; The Universe</p> <p>Science Field Trip to Six Flags to study forces &amp; motion</p>
<b>Technology</b>	<p>Browse to specified website addresses;</p> <p>Extract specified information;</p> <p>Use browser navigation features including: Forward, Back, Favorites, Stop, Home, Address Bar; Cite resources properly;</p> <p>Restate copyright rules in own words; Use spell check and thesaurus; Save files; Research using search engines</p>	<p>Create and present a slideshow using text boxes, relevant graphics, tasteful layout, logical organization, and a Works Cited page; Import pictures, images, &amp; charts; Recognize inappropriate or irrelevant Web sites and responsibly report them;</p> <p>Understand and obey plagiarism rules; Cite sources properly;</p> <p>Restate key copyright rules in own words</p>	<p>Enter data into a spreadsheet; Convert data to an appropriate graph for analysis;</p> <p>Cite sources properly;</p> <p>Restate copyright rules;</p> <p>Honor the privacy and ownership of other students' work;</p> <p>Introduction to digital photography and various computer technology through elective course offerings</p>	<p>Enter data into a spreadsheet; Convert data to an appropriate graph for analysis;</p> <p>Cite sources properly;</p> <p>Restate copyright rules;</p> <p>Honor the privacy and ownership of other students' work;</p> <p>Introduction to digital photography and various computer technology through elective course offerings</p>	<p>Enter data into a spreadsheet; Convert data to an appropriate graph for analysis; Cite sources properly; Restate copyright rules; Honor the privacy and ownership of other students' work; Intro to digital photography and various computer technology through elective course offerings</p>
<b>Engineering</b>	<p>Marvelous Machines: Making Work Easier (Simple Machines)</p> <p>Sounds Like Fun: Seeing Animal Sounds</p>	<p>Thinking Inside the Box: Designing Plant Packages</p> <p>A Long Way Down: Designing Parachutes</p>	<p>Build working volcanoes</p> <p>Design bridges with craft sticks</p> <p>Soil erosion project</p>	<p>DNA extraction</p> <p>Cell models</p> <p>DNA coding project</p>	<p>Design and build a roller coaster</p> <p>Synthesis organic molecules (models)</p> <p>Transfer of energy (mouse trap structures)</p>
<b>Arts</b>	<p><b>Art:</b> CA Coastal creatures in watercolor/ink, watercolor techniques sampler, imaginary creatures, paper making, paper mache monster feet, portrait rules/self-portraits, Picasso paintings, ceramic vases, Jr. duck stamp contest, 3D diorama scenes, emphasis collage, Repouse Mexican metal ornaments, loom weaving</p> <p><b>Music:</b> Singing technique, breath support, head vs. chest voice, vocal exercises, following choral director, notation (tied note, repeat sign), unusual rhythms (6/8, 9/8, 7/8), circle of 5ths, song compositions (improv &amp; within parameters), composers (historical &amp; contemporary, many genres), AB/ABA/AABA, etc. song form, major &amp; minor scales and keys, acapella, music genres (blues, jazz, rag, rock, world, chants, folk, latin, rap, punk, bluegrass, classical, pop, etc.), baroque, romantic, 20<sup>th</sup> century music, performance emphasis</p>	<p><b>Art:</b> Native American coil pots, Native American parfleches, 1 pt. perspective drawings/Van Gogh's bedroom, haunted houses in ink/watercolor, representational/abstract collages, tissue paper stained glass windows, sand paintings, Aztec sun prints, insect drawings in colored pencil, tints and shades starbursts, positive/negative space collage after <i>Road Trip, What If</i> drawings in ink/tempera, textured shoes in clear scratch board</p> <p><b>Music:</b> Singing technique, breath support, head vs. chest voice, vocal exercises, following choral director, notation (tied note, repeat sign), unusual rhythms (6/8, 9/8, 7/8), circle of 5ths, song compositions (improv &amp; within parameters), composers (historical &amp; contemporary, many genres), AB/ABA/AABA, etc. song form, major &amp; minor scales and keys, acapella, music genres (blues, jazz, rag, rock, world, chants, folk, latin, rap, punk, bluegrass, classical, pop, etc.), baroque, romantic, 20<sup>th</sup> century music, performance emphasis</p>	<p><b>Art:</b> Social Studies-cave paintings, Egyptian canopic jars; ELA-Mark Twain comic books; Electives-ceramics, digital photo/computer art, watercolor, drawing</p> <p><b>Music:</b> Singing technique, performance practice, advanced music notation, instrumentation, music &amp; song creation, theatre &amp; music</p> <p><b>Drama Elective/Play Production</b></p>	<p><b>Art:</b> Social Studies-Japanese sumi-E paintings/Japanese chops, paper making; Electives-ceramics, digital photo/computer art, watercolor, drawing</p> <p><b>Music:</b> Singing technique, performance practice, advanced music notation, instrumentation, music &amp; song creation, theatre &amp; music</p> <p><b>Drama Elective/Play Production</b></p>	<p><b>Art:</b> Social Studies-colonial silhouette drawings/Japanese chop jugs; ELA-Downtown Chico mural tour/writing project; Electives-ceramics, digital photo/computer art, watercolor, drawing</p> <p><b>Music:</b> Singing technique, performance practice, advanced music notation, instrumentation, music &amp; song creation, theatre &amp; music</p> <p><b>Drama Elective/Play Production</b></p>
<b>Mathematics</b>	<p>Go Math Curriculum</p> <p>Rocket Math</p> <p>Principal's Math Challenge</p>	<p>Go Math Curriculum</p> <p>Principal's Math Challenge</p> <p>CSUC Hands-on Math Lab</p>	<p>Go Math Curriculum</p> <p>CSUC Hands-on Math Lab</p> <p>Math Bowl</p>	<p>Go Math Curriculum</p> <p>CSUC Hands-on Math Lab</p> <p>Math Bowl</p>	<p>Go Math Curriculum</p> <p>CSUC Hands-on Math Lab</p> <p>Math Bowl</p>