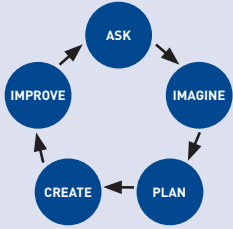




THE CAMPUS SCHOOL *of Carlow University*

STEAM+ Curriculum Matrix

| | SCIENCE | TECHNOLOGY | RESEARCH | ENGINEERING | ARTS & HUMANITIES | MATH |
|--------|---|---|--|--|--|---|
| NOTES | Defined curriculum | <i>“All students need digital literacy, many need computational thinking depending on their career choice, and some will actually do the software development...”</i> | Integrated into curriculum. Developmentally appropriate research skills. Additional documentation for this category can be found in a separate document for the Research Strand. | Integrated into curriculum. Engineering design model. <div></div> | Defined curriculum (Fine Arts, Music) and integrated into curriculum. Defined curriculum (Social Studies) | Defined curriculum <i>“Students learn by grappling with mental obstacles and overcoming them.”</i> UCSMP Math reinforces abstract math concepts through concrete real-world applications. |
| PS 3/M | • Garden Project /Botany | • Message from Me • The Electrifying World of Circuitry • GigaPan PreK-K (EC) | • Animal Research | • Pre CIP • Engineering Mazes | • Responsive Classroom | Text: Montessori Math Materials progression |
| PreK/M | • Garden Project /Botany | • Message from Me • The Electrifying World of Circuitry • GigaPan PreK-K (EC) | • Animal Research | • Pre CIP | • Responsive Classroom • Stuffed Globe INTERDISCIPLINARY • Marbles, Magnets, Melting & Magic | Text: Montessori Math Materials progression |
| K/MK | Exploration and discovery —journal writing • Solar System Model • Garden Project /Botany | Tablet • Message from Me • GigaPan PreK-K (EC) | • Animal Research | • CIP Year 1 • Building Projects | • Responsive Classroom ART • Watts Towers • Totem Sculptures INTERDISCIPLINARY • Gingerbread Fun • DinoLand | Text: Everyday Math Text: Montessori Math Materials progression |
| 1 | Hands on Exploration Observe, experiment, investigate, predict, and communicate. • Literature Trade books • Exploring Matter Interdisciplinary Unit on Butter • Garden Project / Botany | Tablet | | • CIP Year 2 | ART • Pinch Pot Cups • Animal Chairs • Blue | Text: Everyday Math |
| 2 | Hands on Exploration Observe, experiment, investigate, predict, and communicate. Units: human body, electricity, chemical reactions, matter/atoms, energy | • Tablet • Squishy Circuits • ElectriCity Project (Build and electrify a city with series circuits.) | • Penguin Project • Spider project web (graphic organizer) • Insect project | • <i>CIP Year 3</i> • <i>Little Bits</i> • ElectriCity Project | ART • Lines of Maps • Color Math • Castles MUSIC • What Makes a Song a Lullaby | Text: Everyday Math |
| 3 | Inquiry process develops investigative skills Units: earth, astronomy, energy, forces, and motion, ecology, life • Forces and Motion With 5th Grade Roller coaster design | Chromebook • Keyboarding and digital literacy • Scratch Programming • Finch Robot • GigaPan Through the Year (EC) • Hummingbird Curriculum (EC) | • Animal report —coordinates with ART | • Paper Engineering • <i>Little Bits</i> • <i>Arts & Bots (lights & motors)</i> | ART • O’Keefe Desert Paint-ings • Pueblo Pottery • Animal Beds WORLD LANGUAGE • Google Translate v. Dictionary MUSIC • MusicFirst and other software | Text: Everyday Math |



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|---|--|--|--|--|--|--|
| 4 | <p>Inquiry process develops investigative skills</p> <p>Units: plants and animals, genetics, weather, ecology, matter, atoms and molecules, electricity and magnets</p> <p>• Science Fair</p> | <p>Chromebook</p> <p>• Keyboarding and digital literacy</p> <p>• Scratch Programming</p> | <p>SOCIAL STUDIES</p> <p>• State Fair Unit</p> <p>SCIENCE</p> <p>• Science Fair</p> | <p>• <i>Arts & Bots (lights & motors)</i></p> <p>• City of Bridges</p> | <p>ART</p> <p>• Drawing In & Out of a Bag</p> <p>• Autumn Leaves</p> <p>• Architecture School Museum Project</p> <p>WORLD LANGUAGES</p> <p>• Ducky World</p> | <p>Text: Everyday Math</p> |
| 5 | <p>Inquiry process develops investigative skills</p> <p>Units: plants and animals, human body, earth forces, weather, ecology, energy</p> <p>• Science Fair</p> <p>• Roller Coasters See 3rd grade</p> | <p>Chromebook</p> <p>LANGUAGE ARTS</p> <p>• Narrative Writing using Google Talk to edit stories</p> <p>• Keyboarding and digital literacy</p> <p>• Audacity and other related digital tools</p> | <p>SOCIAL STUDIES</p> <p>• A View of the World World Fair—research paper</p> <p>SCIENCE</p> <p>• Science Fair research report</p> | <p>LANGUAGE ARTS</p> <p>• Expository Writing Using SCRATCH visual programmer</p> <p>• <i>Arts & Bots (lights, motors & sensors)</i> <i>Build a bot</i></p> | <p>LANGUAGE ARTS</p> <p>• Author Study—soundtrack for a book read</p> <p>• <i>Storybird</i></p> <p>ART</p> <p>• Flotsam Drawings</p> <p>• Tessellations</p> | <p>Text: Everyday Math</p> |
| 6 | <p>Text: Glencoe/McGraw-Hill Earth Science</p> <p>Inquiry process develops investigative skills</p> <p>• Volcano Project with 2nd grade</p> <p>• Science Fair (see 7th)</p> | <p>Chromebook</p> <p>• Scratch Programming—write codes to create a digital presentation</p> <p>• Keyboarding and digital literacy</p> | <p>SOCIAL STUDIES</p> <p>• Ancient Civilizations Research and Presentation</p> <p>SCIENCE</p> <p>• Scientific Paper (see 7th)</p> <p>RELIGION</p> <p>• Old Testament Compare/contrast</p> | <p>LANGUAGE ARTS</p> <p>• Investigating Characters Across Series Arts & Bots (lights, motors & sensors)</p> | <p>SOCIAL STUDIES</p> <p>• Socratic Questioning Activity</p> <p>• Ancient Civilizations Scaled timeline</p> <p>• Thales Shadow</p> <p>ART</p> <p>• Name Kaleidoscope</p> <p>• Canopic Jars</p> | <p>Text: UCSMP Pre Transition</p> <p>• Average CS Student Survey</p> <p>• Math for Science Project</p> |
| 7 | <p>Text: Glencoe/McGraw-Hill Life Science</p> <p>Inquiry process develops investigative skills</p> <p>• Science Fair</p> | <p>Chromebook</p> <p>• Keyboarding and digital literacy</p> <p>• <i>Visual Programmer, other languages</i></p> | <p>SOCIAL STUDIES</p> <p>• Bill of Rights Project</p> <p>• Political cartoon</p> <p>SCIENCE</p> <p>• Scientific Paper</p> | <p>• <i>Arts & Bots (lights, motors & sensors)</i></p> | <p>SOCIAL STUDIES</p> <p>• Primary Document Analysis:</p> <p>• Currency Comparison Auction</p> <p>ART</p> <p>• Papier-mâché figures</p> | <p>Text: UCSMP Transition</p> <p>• Math for Science Project</p> <p>• Grid Graphic</p> <p>• Geometry in Architecture</p> <p>• Flatland geometry and literature</p> |
| 8 | <p>Text: Glencoe/McGraw-Hill Intro to Physical Science</p> <p>Inquiry process develops investigative skills</p> <p>• Science Fair (see 7th)</p> <p>• Rube Goldberg Project</p> <p>• Pasta Cars</p> | <p>Chromebook</p> <p>• Keyboarding and digital literacy</p> <p>• <i>Programming</i></p> | <p>SCIENCE</p> <p>• Scientific Paper</p> <p>LANGUAGE ARTS</p> <p>• Author Research</p> <p>• Library research slideshow</p> <p>RELIGION</p> <p>• Sacramental prep and moral issues</p> <p>SOCIAL STUDIES</p> <p>• Holocaust research</p> | <p>• <i>Arts & Bots (lights, motors & sensors)</i></p> <p>• <i>Little Bits (Rube Goldberg constructions)</i></p> | <p>SOCIAL STUDIES</p> <p>• Primary Doc Analysis</p> <p>• WWII webquest</p> <p>• SPENT—economic simulation</p> <p>• Star Power (SS)</p> <p>ART</p> <p>• Chuck Close self-portraits</p> <p>MUSIC</p> <p>• STEAM and Structure in Music</p> | <p>Text: UCSMP Algebra</p> <p>Math for Science Project</p> <p>• Hills, Steps, Slopes</p> <p>• Carnegie Learning (or other) Geometry Module</p> |