ERC Nevada County
Economic Resource Council

K-12

PROGRAM	DESCRIPTION	GRADES	Open to Non-enrollees?
CLEAR CREEK SCHOOL (www.clearcreekschool.org)			
Engineering	An enrichment class that challenges the students to complete engineering tasks as teams.	7th/8th	No
Embedded STEAM activities	All of our grades (K-8) use STEAM activities in their daily classes. It is not a "stand alone" class, but rather embedded so students have it as part of the daily curriculum. We tie in math/science/language arts/social studies/art in these projects.	K-8th	No
UNION HILL SCHOOL (district.uhsd.k12.ca.us)			
Robotics Class	Two teachers, one teaching coding of the robots using chromebooks and the other teaching the production and the manipulation of the robots. Simple projects at first like going to the end of a table and back without going off the table. Final project will be "Sumo Wrestling" with robots competing to knock each other out of a bounded area.	7-8th	No
Computer Programming	This twelve week Junior High elective class will focus on block programming and the Java language. Coding teaches problem-solving, communication, computational, critical, and analytical thinking skills. It will not only teach students about technology, but how to think differently about any problem.Through the twelve weeks students will learn: conditions, loops, functions, and debugging.	7-8th	No
Multimedia class	This advanced technology class will spend a semester exploring WEB 2.0 TOOLS. We will look at the INTERNET not only as a place to retrieve information, but also as a place for us to CONNECT, AUTHOR, and SHARE.	7-8th	No
Broadcasting team	Broadcasting team for the BBC (Bearcat Broadcasting Channel) (7/8) Video news broadcasts produced by students about students.Check it out.... http://tech.uhsd.k12.ca.us/mriley/bearcat-broadcast-channel/	7-8th	No
Chrome books	Chrome book usage for shared assignments in ELA, Social Studies, Science (4 - 8) Two fully equiped chrome books used by classes to produce and share work. Assignments posted through Google classroom are accessed by students and submitted electronically.	4-8th	No
Computer lab	Computer lab used for technical training with coding, video production and web 2.0 tools. We also have a media center where are 1 - 3 grade students are trained in basic computer skills.	K-8th	No
LYMAN GILMORE (gilmore.gvsd.us)			
Video Journalism Class	Students create the content for stories that are produced in a 15 minute online segment for the Gilmore News Network Friday mornings. It is posted on the school's website and accessible to the public. In the enrichment portion of the program students write stories. The stories that the students are tasked to write are specific to current events, the happenings at Lyman Gilmore Middle School, sports, anti-bullying, charitable fundraising, etc.	7-8th	No
Gilmore News Network	Live broadcast show that goes out 1/week - 9am Friday. The live broadcast is shown through YouTube with the link being shared online, on the Gilmore website, so family and friends can view from anywhere.	5-8th	No
Digital Footprint	Students create a digital portfolio demonstrating the work they've accomplished while at Lyman Gilmore. This is started in the 5th grade with the students elective wheel that includes a Digital Media class. In Digital Media, students will use a Google Drive that has been issued to them and will use that drive to store work they have done throughout their career at Lyman Gilmore	5-8th	No
STEAM Academy	This is a project-based, hands on learning programs. They serve 2 strands, honors and at-risk. The honors strand, a more excelerated program, serves students seeking enrichment in the areas of Science, Technology, Engineering, Arts, and Mathematics. The at-risk strand, serves to engage students that are struggling to tap into their education due to a variety of extenuating circumstances including, but not limited to, their home life. Highlights of the academy include: coding, hands-on engineering activities (Popsicle stick bridges, air rockets, bottle rockets, egg drops, simple machine challenges, Rube Goldberg Machines, product development, alternative energy, and Environmentally sound residential and commercial construction), robotics and computer programming (Lego Mindstorm Ev3 Robots), Inquiry based learning, etc.	6th	No

Program	Description	Grades	
Film Appreciation	How film has affected history and history affected film. Students will focus on classic film.		No
STEAM Rotation	Community members, with expertise in the area of Science, Technology, Engineering, Arts, and Mathematics will come in and provide enrichment to 5th grade students. The rotation will be classes rotating through each of the 5 STEAM enrichment opportunities provided by the community experts.	K-5	No
Maker lab	It's a place to create, collaborate, invent, compete, challenge, learn, and have fun doing it. There are design challenges, along with time to explore and make things. Our investigations will be hi-tech (computers, robotics, circuitry), lo-tech(paper, tape, glue), and everything in between. Students are taught to think outside of the box to make something new!	7-8th	No
STEAM day	Lyman Gilmore, the school's namesake, was an innovative pilot that, according to some, flew before the Wright Brothers. In fact, the Lyman Gilmore Field was the site of the first commercial airport west of the Mississippi. Because Lyman Gilmore was an innovator, Lyman Gilmore Middle School students thrive to be the same. To honor Lyman Gilmore, on his birthday in May the school holds a Flight Day. On this day, students, staff, and comminuty members set up STEAM/Flight related booths where students are exposed to STEAM/Flight hands on learning experiences. The day kicks off with over 30 local pilots doing a flyover the Gilmore Field. As it is toward the end of the school year, it's a wonderful culminating event that showcases Lyman Gilmore Middle School's committment to STEAM.	K-8th	No

NEVADA JOINT UNION HIGH SCHOOL (www.njuhsd.com)

Program	Description	Grades	
Academies	Academies are cross-curricluar and multi-disciplinary they include core depts and teachers		No
Partnership Academy	Video focus		No
Green Academy	The Green Academy is a full scale comprehensive small learning community based on an Environemtal Resources theme drawn from the CA CTE model standards. It is a based on three distnct core strands, the primary strand being Science, and the secondary and tertiary strands are Englich and Social Science. The course sequence in Science begins with Green Biology, a course designed to employ supplementary Environmetal Resource CTE Pathway standards (housed within the CA CTE standards sector of EEU [Environment, Energy and Utilities]. This leads to Green Chemistry structured identically, but satidfying the A-G Chemistry standards. This leads to a third capstone course Sustainable Career Apprenticeship, involving mentorships and internships related to the targeted Green Academy industries, and also emplying a large scale research project that links with the Senior Porject graduation requirement at NUHS. As an Academy, the curriculum is cross curriculuar, which means it links across the three strands and this specific CTE based cross currcular learning is PBL (Project Based). The Academy theme is specficaly, Environemtnal Resources, Outdoor Education and Activism. The Academy currently has five teachers, a coordinator and will soon move to 8 teachers, and the following year likely 10. The Academy serves approximately 120 students.		No
Humanities Academy	Liberal Arts focus on a classical education with extra attention on languages - spanish now, germany now		No
Pathways - (Sequence)	These are sequences not programs & only exist in specific departments		No
Design& Engineering Pathway	Pre-Engineering/Industrial Design 4 course Pathway (Project Lead the Way) 1st course is a UC "F" Visual and Performing Arts course titled Introduction to Design. It is a largely CAD/Design Process based course employing industry standard 3D modeling software, an online Learning Managment System, and an applied sciences experimental component. 2nd course is titled Principles of Engineering. This course is a detailed, physics-based study of mechanics and electronic systems, largely taught through VEX robotics and the RobotC programming language. This leads to the 3rd course, Computer Integrated Manufacturing. This course is largely an applied CAM course. It is an preview of advanced maunfacturing processes and emplys the use of 3D printing, laser cutting and engraving systems, robotic CNC routers, and a CNC plasma cutter. The capstone course is Engineerign Design and Development. This course is a full fledged application of the previos three course and devoted to solving a full scale engineering problem, involving prototyping, iterative design processes, and presentations. This course links to the required Senior Project at NUHS. The D&E Pathway serves approximately 120 students. It has its own 1000 sq ft computer lab and 2000 sq ft engineering prototyping maker lab.		No
Agricultural Pathway	2 strands - agra-science (Ag Biology, Forestry, Horticulture) ag-mechanics (Ag mechanics 1 & 2, metal fabrications, and adv. metal sculpture.) Also includes Ag Leadershipa and Ag Career Apprenticeship 9 courses, three teachers, comprehensive CTE pathway with connected CTSO (Career Tech Student Organization -- FFA)		No
NUHS Theater Tech Crew	The Theater Tech Crew is the student crew that "Makes Things Happen!" in the Bear River Theater. Students learn how to run sound equipment, lighting equipment and work with video equipment. They are taught how to use the equipment and run the actual shows.	9th-12th	No

BEAR RIVER HIGH SCHOOL (bearriver.njuhsd.com)

Course	Description	Grades	
Communication Arts	This introductory course not only provides an overview of the most important aspect of our age—communication—it also goes in-depth with a look at the history of film starting with Charlie Chaplin's silent films, progressing through the "talkies," and ending with a study of the innovations in modern film block- busters. Students will learn how to make their own digital videos using techniques common to both visual and performing arts. No prior knowledge of	9th-12th	No
Advanced TV Production	This course is for both advanced video production students wishing to further their knowledge and skill base as well as for students new to the field of digital arts who want to work in a studio setting producing programming appropriate for television broadcasting. This class is also open to students wanting to learn 3- D animation.	10th-12th	No
BRHS News Club	This club utilizes staff, students and equipment from the Communication Arts and Advanced TV classes to produce, edit and deliver the daily bulletin to classrooms via our TV channel.	9th-12th	No
Agriculture Mechanics III/IV	An introduction to artistic and creative perception including aesthetic valuing through a series of projects in various media including; Metal, Iron, and a variety of Alloys. Students are also introduced to the elements and principles of design such as line, shape/form, balance, and emphasis using a series of metal-based projects to explore the connections, relations, and application to visual arts design. Emphasis is on the use of power machinery and computers using arc welding, gas welding, mig welding, tig welding and the plasma cutter. Students will research and study metal fabrication trends to understand and develop an appreciation for metal design within historical and cultural, formal and casual, ceremonial and traditional, including an understanding that metal designs are affected by society, culture, history, politics, and economic influence. Various assignments based on abstract two and three dimensional designs, historical culture and theory, practical theory, and analytical critiques of various metal art works using design vocabulary in conjunction with development of technical skills in metal art will serve as a foundation for more complex works such as multi-part art designs and creative expression.	11th-12th	No
BRHS Theater Tech Crew	The Theater Tech Crew is the student crew that "Makes Things Happen!" in the Bear River Theater. Students learn how to run sound equipment, lighting equipment and work with video equipment. They are taught how to use the equipment and run the actual shows.	9th-12th	No
STEM Club	On campus club open to all students interested in careers in math, science and technology. They recently built and tested their (ROV's) remote, underwater vehibles in their swimming pool	9th-12th	No

BITNEY COLLEGE PREP HIGH SCHOOL (www.bitneyprep.net)

Course	Description		
Internship Program	Qualified students are placed in work/learning opportunities with local businesses and organizations. They earn credits and service hours toward graduation and gain hands-on experience in environments and professions that interest them.		
Career Pathways Training Grant	Students receive academic and vocational training aligned with possible future career paths. We are eager to develop a tech pathway through this grant funding		
Coding/Programming	Offered as electives		
Digital Media	Graphic Design. Offered as an elective		
Sustainable Design	Offered as an elective. Students design, build and/or implement projects which promote sustainable energy efficiencies, greening of the campus, and the development of resourcefulness skills.		
Flipped Classrooms	Routinely used as a method of instruction		
Video/Photojournalism	Offered as an elective.		

SIERRA COLLEGE (www.sierracollege.edu) and Ghidotti Early College High School (ghidotti.njuhsd.com)

Course	Description		
Mechatronics	Mechatronics is the study of electronics, mechanics, and computer control in one cohesive, hands-on, project-based program. Includes robotics, industrial automation, industrial process control and electro-mechanical systems. Associates or certificate degrees available. For more information: www.realskillsrealiobs.com.	Post-secondary	No
Engineering	Pre-Engineering courses available at the Nevada County Campus to include Chemistry, Math, Mechatronics, Computer Information Systems, Geographic Information Systems, General Physics to prepare students for degree pathways.	Post-secondary	No
Energy Technology	Three class series in photovoltaics leading to a Skills Certificate; beginning course offered at Nevada County Campus. First two classes prepare students to take the national certification examination.	Post-secondary	No
Computer Science	Most computer science classes offered online every semester. Nevada County Campus offers the exploratory class for non-majors and first level course in transfer pattern.	Post-secondary	No
Computer Information Systems	Program prepares students for occupations requiring computer applications, database, technicial and customer support services, web authoring/developing, computer techician, network administration and related areas. Prepares students for associates degrees, certificates and industry certification exams.	Post-secondary	No

Intro to Digital Imaging	Introduction to fundamental concepts and techniques of art and design on the computer. Includes basic computer skills, digital image capture, image manipulation, drawing, page layout, and preparation of images for print, web or multimedia. Students develop creative projects using current graphics software.	9-th-12th	No
Intro to Video Production	Introduction to principles, techniques and the terminology of video production and post-production. Guided classroom exercises and projects, including pre-production planning, video and audio recording techniques, remote (field) system set-ups and studio set-ups, lighting for single camera video shoots, and basic video editing and output.	9-th-12th	No
Three-Dimensional Design	Introduction to the concepts, applications, and historical references related to three-dimensional design and spatial composition, including the study of the elements of art and principles of design as they apply to three-dimensional space and form. Development of visual vocabulary for creative expression through lecture presentations and use of appropriate materials for non-representational three-dimensional studio projects.	9-th-12th	No
Computer Science	This course is designed allows students to develop skills in web development and various computer languages.	9-th-12th	No

INNOVATIVE COMMUNITY EDUCATION RESOURCES

Organizations

Curious Forge - (thecuriousforge.org/)	Yes
Collaborative Technology Center @ Madelyn Helling Library (mynevadacounty.com/nc/library/Pages/Collabrative-Technology-Center.aspx)	Yes
Sierra Digital Media Campus/Economic Resources Council (DETAILS COMING SOON)	Yes
Kaleidoscope (Sierra College Continuing Education) (www.sccommed.org/)	Yes
OLLI: Osher Lifelong Learning Institute:(Sierra College) (http://www.sierracollege.edu/academics/enrichment/olli/)	Yes
Junior Achievement - (http://www.jasac.org/)	Yes

Programs

Cyber Patriot	CyberCamp is for teens entering 7th thru entering 12th grade. It emphasizes fun, hands-on learning of cybersecurity principles that are relevant and applicable to everyday life. At CyberCamp, students learn the importance of cyber safety and how to protect their personal devices and information from outside threats. The AFA CyberCamp curriculum was first piloted during the summer of 2014. 2016 is the first year we will have it in Nevada County as a joint project between the CA Community College system, Sierra College, Nevada Joint Union High School, Nevada County Superintendent of Schools and the Economic Resource Council.	7-12th	Yes
Girls Who Code	Coordinated by the Nevada City Rotary and hosted at Bitney College Prep High School, the Girls Who Code Program offers programming instruction to 40 girls in grade 6-12 from schools throughout Nevada County. Taught by volunteer instructors and supported by many guest presenters, the curriculum ranges from beginning through advanced programming instruction.		Yes
ACME Robotics Club	A Nevada County-based robotics team that competes in the FIRST Tech Challenge (FTC) league. Composed primarily of high school students, their activities include robot construction and design, project management, software development. They are in their second year.	7-12th	Yes

SCHOOLS THAT PROVIDE INTERNSHIPS

Bitney Springs

Sierra College