

RCSD Elective/Course Review Form

Teachers: Please use this form to provide information so HR can determine which credential pathway may be needed to approve your elective course you will be teaching. Please complete ONE FORM for EACH elective or course you will teach.

The respondent's email (**dhopper@rcsdk8.net**) was recorded on submission of this form.

Teacher Full Name *

David Hopper

Credentials I hold (please be specific eg, Multiple Subject, Single Subject Math, added/
supplemental authorization etc)

*

CTE teacher credential

School Site *

- ☐ Adelante/Selby
- ☒ Clifford
- ☐ Cloud
- ☐ Garfield
- ☐ Hoover
- ☐ Kennedy
- ☐ MIT
- ☐ NSA
- ☐ Orion
- ☐ Roosevelt
- ☐ Taft

Grade Level *

K-8

Elective Course title *

Steam class

We have different models of elective delivery in RCSD. I will be teaching this course in: *

- ☐ Trimester 1
- ☐ Trimester 2
- ☐ Trimester 3
- ☐ The entire school year
- ☐ Aug-Dec
- ☐ Jan-June

Outcomes/Goals for students. What project or end product will be produced? *

Each class of students will have a different goal or outcome. Kindergarten will focus on early coding through physical computing and basic Lego building and coding. 1st grade will continue with Lego coding and start on fine motor skills including paper-craft, blocks, scissor work, origami, community planning and maker challenges. 2nd grade will continue with Lego coding, and start competing with each other in basic robot building. We will start with BBC microbits and Birdbrain Hummingbird robot kits. Their goals will be to be able to program basic cardboard mechanical machine's. 3rd grade will finish up the Lego Essentials kits and move on to Lego prime kits. With these kits they will be extend their programming to Makercode projects and do basic sumobot in class competitions. We will continue with microbit coding and create interactive machines. We will be building more with cardboard and using hot glue and cardboard cutters to do projects integrated with the Clifford 3rd grade curriculum. 4th grade will continue with Lego Prime kits, making more complicated machines and robots. They will conclude with a cardboard interactive carnival that the community will be invited to. 5th grade will be the top of the Lego prime robot builders. They will break up into teams and work on Old first Lego League challenges. We will be stating basic woodworking projects that will include using basic hand tools. The goal will be to have a planned and executed project. The 6-8th graders will be taught the Engineering process through Design Thinking. They will be coached to come up with ideas and inventions that can help and improve the world that we live in. I would also like to do community projects that will benefit Redwood City. More advanced Robotics and introduction to AI and the usefulness and caution of innovation over conservation.

Describe the standards/topics/activities that will be taught. *

1. Science & Engineering:

CA NGSS Disciplinary Core Ideas:

Fundamental scientific concepts in Physical, Life, and Earth/Space sciences. Science and Engineering

Practices: Skills such as asking questions, defining problems, developing models, and designing solutions. Crosscutting Concepts: Broad, overarching themes (e.g., patterns, cause and effect, systems) that bridge all disciplines

2. Mathematics: CA Common Core Mathematical Practices: Problem-solving, reasoning, and abstract thinking. Core Domains: Foundational math concepts taught sequentially, including counting, operations, algebraic thinking, measurement, and geometry

3. The Arts: CA Visual and Performing Arts (VAPA) Arts Integration: The "A" in STEAM uses the arts (visual arts, dance, music, and theater) as a medium to communicate, design, and deeply explore math and science concepts.

4. Technology & Computer Science CA Computer Science Standards: Used to guide technological literacy, digital citizenship, and foundational coding/programming depending on the school district's specific offerings.

What background do you have to teach this course? Does the standards fall within your credential? Are these topics a hobby? Please explain. *

Qualifications

26 years of teaching Music, Maker/STEM and Drama classes in K-12 private schools, a public charter school and a public Spanish immersion school

Holds a CTE credential focusing on art, media, entertainment and information and communication technologies

Co-Founder of a cutting edge school for twice exceptional middle and high school students

Manages all aspects of audio-visual technology, theater lighting and stage design for school productions

Coordinates student, parent and faculty volunteers for productions

Proficient in the following software programs: Propellerhead's Reason, Sibelius composing software, Logic, Native Instrument's Kontakt and Maschine, Neurotron's PhotoScore, Audacity, Google Suite and all Microsoft Office products, Moodle, Photoscore

Cross-curricular collaborator

Teaching and Directing Experience

STEAM Teacher at Adelante-Selby Spanish Immersion School

Redwood City, CA, August 2022-present

Implements STEAM curriculum developed by the RWC Steam Team

Teaches TK-5th grade students coding, Lego engineering and computational thinking

Supports classroom teachers with class projects

Runs after school enrichment clubs

Directs the technical aspects of school musicals

Cofounder Music, Maker/STEM and Drama Teacher at Renaissance Learning Academy

San Jose, CA, September 2019- June 2022

Developed curriculum for new maker program which integrates with other subjects of the school curricula

Taught students how to program Arduinos and make robots from Lego Technics and Raspberry Pi kits. I

also teach: basic electronic circuitry and soldering, woodworking, auto mechanics, paper making, leathercraft, sewing, musical instrument design and DJing. Additionally, I taught circuit bending, 3D printing, and how to use online digital audio workstations

Led drama performance program

Music, Drama and Maker teacher, Stanbridge Academy

San Mateo, CA, August 2008- June 2019

Developed and implemented a music program for K-12 students

Wrote and directed an annual drama production

Directed an improvisational drama club

Started a small high school choir

Oversaw the set-up of the audio-visual equipment for school shows

Established a maker space and high school maker classes

Planned and directed holiday and spring sing concerts

Taught a differentiated curriculum to students with mild to moderate learning differences.

Started a successful student rock band that performed regularly at school events
Originated a DJ club that played at the school dances

Music Teacher at Serendipity School, Belmont, CA August 2008- May 2017

Planned, scripted and directed Halloween, holiday and spring musical shows
Developed and implemented a brand new music program for K-5 students.
Taught after-school group guitar lessons.
Set up and maintained all audiovisual equipment for school shows and presentations.

Music and Theater Teacher, Belmont, CA, July 2008-September 2008

Taught "Music Together" program to parents and children in a variety of settings
Taught music and recorder to fourth grade students at Taft Elementary for Music for Minors in Redwood City, CA.
Music Director for San Carlos Children's Theater for a Fall production

Director of Music, All Saints' Episcopal Day School, Carmel, CA, August 2003-
June 2008

Directed middle school musical and Shakespeare programs
Designed light and sound shows for the productions
Acted as a one-man production team and supervised student and parent volunteers
Created a complete K-8 music curriculum
Taught 17 classes a week, including: music history, Orff music ensemble and choir
Led songs and played guitar for daily chapel service
Other contributions included: organizing a new projection system which allowed students to read song lyrics; recommending and ordering new technical equipment that enabled students to compose their own music, and composing original pieces of music for Shakespeare and musical productions

Director of Performing Arts, Cypress Grove Charter High School, Seaside, CA, August 2001-June 2003

Generated creative drama and music appreciation curriculum
Directed four successful theater productions with advanced and first-time actors
Started and maintained a choir
Created an original Renaissance Handicrafts class, which was the most popular elective class
Developed a film appreciation class that inspired a few students to pursue careers in film directing

The CTC requires the District to prove you are qualified to teach this course. Please explain how you qualified to teach this course. *

Please see previous question

I agree I would like the Local Committee on Assignments to review this course information and recommend an approval to the School Board so students may take this course. Please type your name as your signature. *

David Hopper

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MM DD YYYY

06 / 12 / 2026

This form was created inside of Redwood City School District.

Google Forms