Integrating
Computer Science + Geography

Professional Fellowship
Session #3
Dec 19, 2023: 6:00-7:30 p.m.

CALIFORNIA
global education
PROJECT CGEP

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Session Agenda

- Connecting

- Student GIS Mapping Competition

- Planning an individualized fellowship path

You should do this!

My California

GIS MAPPING SHOWCASE AND COMPETITION

FOR 4-8TH AND 9-12TH GRADES

2024 COMPETITION TIMELINE

JANUARY 26 — Deadline for schools to sign-up for the optional mentoring program

MARCH 1 — Deadline to submit student work for mentoring

MARCH 22 — School registration deadline

APRIL 19 — Entries due to CGA

MAY 10 — CGA announces state winners

Grades 4-12

Schools/teachers register and submit up to 5 entries to state competition

1-2 student authors per entry (StoryMap)

Contest info and past winners at calgeography.org

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StoryMap Structure

Relevant geographic question that drives:

- discussion of issue and framing of findings

- analysis and mapping of geographic data

Student selected inquiry using as much original content as possible since contest rules limit use of images and maps that students do not create themselves.
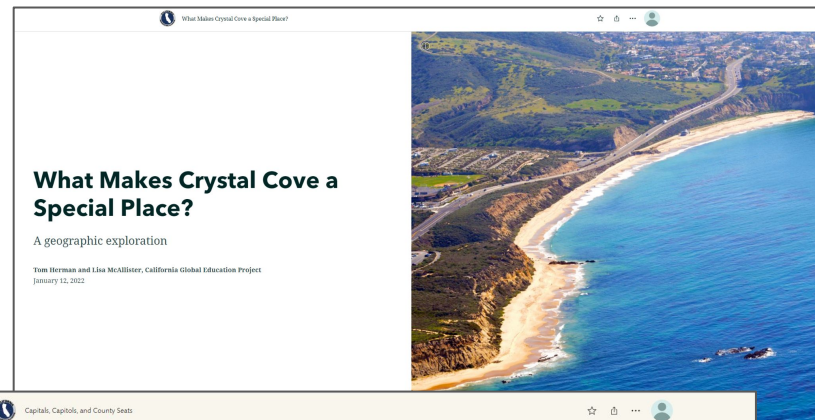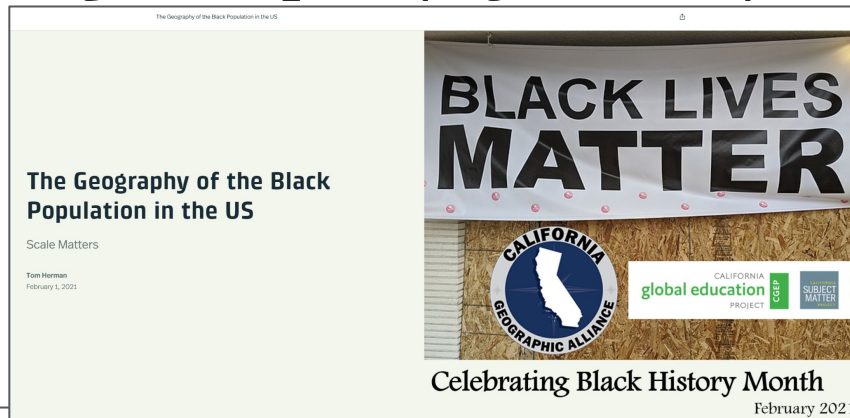
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StoryMap Starters

- CalEnviroScreen and Community EJ Screening Tool

- 2020 US Census Demographic Data

- California Historical Census Data (counties or cities/towns)

- ???

StoryMaps (by Tom)

What Makes Crystal Cove a Special Place?
A geographic exploration
Tom Herman and Lisa McAllister, California Global Education Project
January 12, 2022

The Geography of the Black Population in the US
Scale Matters
Tom Herman
February 1, 2021

Celebrating Black History Month
February 2021

California Missions
In Time and Space
California Geographic Alliance
May 31, 2023

Capitals, Capitols, and County Seats
Where does government business get done? A guided inquiry.
Tom Herman, California Geographic Alliance
October 24, 2023

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StoryMaps (by students)

2022 Contest Winners

The first place prize in the 9th-12th grade division is awarded to Daniel Bet Sarghez and Matthew Keshishian of Clark Magnet High School in La Crescenta (L.A. County) for a project entitled "CTE Mission: CubeSat." This StoryMap highlights the work of the school's GIS and Remote Sensing team. The group entered a national competition and ended up implementing the project they designed to map homeless encampments in high-risk fire zones in Los Angeles. They collected their own data using remote sensing techniques.

Other students recognized in the 9th-12th grade division include:

- Second place: Israel Jurado, Bonita Vista High School, Los Angeles: Median Household Income and School Attendance
- Third place: Kaitlin Bertrand, Bonita Vista High School, Chula Vista: Dance in High School
- Fourth place: Ervin Kamali, Clark Magnet High School, La Crescenta: Cannabis Cultivation in California
- Fifth Place: Tadeh Peroomian, Clark Magnet High School, La Crescenta: Classroom Purifier or a Live Wire?

The first place prize in the 4th-8th grade division is awarded to Olivia Shekou of Ross School in Ross (Marin County) for a project entitled "Rising Sea Levels." This StoryMap goes beyond describing the impacts of climate change and rising sea levels to inspire action. The author applies documentary film-making concepts and calls it a "mapumentary."Other students recognized in the 4th-8th grade division include:

- Second place: Gabriela Bizarro and Diana Sorto, Hollenbeck STEM Magnet, Los Angeles: Air Pollution in Boyle Heights
- Third place: Alegra Huck and Charles Sutro, Ross School, Ross: Shark Attacks in California
- Fourth place: Matthew Arce, Hollenbeck STEM Magnet, Los Angeles: The Liquor Store Story: Difficulties Young Students can Face
- Fifth Place: Abigail Silva and Aimee Rios, Hollenbeck STEM Magnet, Los Angeles: Rent and Income in Los Angeles

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California Geographic Alliance

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QUESTIONS?

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Planning Your Fellowship Path

1. **Identify opportunities** to integrate something new into your instruction that advances your goals and connects with student interests while leveraging the power of CS + Geo.

2. **Document** your process and progress, **and periodically share** your work with the group.

3. Set your own **SMART objectives** for the fellowship, with regard to developing and piloting teaching and learning activities.
   (SMART = specific, measurable, achievable, relevant, and time-specific; e.g., *By December 31, 2023 I will identify at least two opportunities to integrate or emphasize CS + Geo in my teaching related to a high-interest topic.*)

4. **Engage networks of collaboration and support** based on your needs

5. Add one or more objectives related to **sharing your work** and the value of CS + Geo.

Planning Your Fellowship Path

- **Planning document shared on Google Drive**

- **One document per fellow. Add note if you choose to work in pairs or groups**

- **Start entering your info.**

- **Sharing planning documents will begin after December meeting.**

Click here to access

Name:

Grade level(s):

Subject(s):

Description of community location and context:

Opportunities I have identified for integrating CS + Geo
(at least 1 by Dec '23, 3 by Apr '24)

My fellowship objectives
(establish 2-3 SMART objectives by Apr '24, update progress on each as relevant)

Questions and/or needs I have in order to meet my objectives

Plans for sharing my work and the value of CS + Geo with colleagues and ed leaders
(at least 1 by Oct '24)

Notes

Links to Key Resources and Shareable Products

Summer 2024 Workshop

July 15-17, 2024

Univ. of San Diego campus

>On-campus accommodation for 7/14-17

>Travel and meal costs covered

>Work time: 8:30-4 Mon/Tue; 8:30-12 Wed

>Field trips in evenings as requested

>Airline tickets will be purchased by USD

Questions?

Source Docs: Geography

- CA K-12 History-Social Science Framework adopted Aug 2016 (link)

- *Geography for Life* standards (link)

Source Docs: Computer Science

- CA K-12 Standards adopted Aug 2018 (link)

- Other CDE info and Computer Science Focus Group Report from 2018 (link)

- Computer Science Teachers Assn Standards (link)

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