Geo-Detective: A Cross-Curricular Global Investigation

Materials Needed

- A computer with reliable internet access
- A Geoguessr account (A Pro account is recommended for creating custom challenges and unlimited play)
- A digital notebook (like Google Docs or Microsoft Word) or a physical journal
- Spreadsheet software (like Google Sheets or Microsoft Excel)
- Access to online research tools (e.g., Google Maps, Google Earth, Wikipedia, online encyclopedias, currency converters)
- Art supplies (paper, pencils, markers) OR digital design software (e.g., Canva, Krita)
- Video editing software (e.g., DaVinci Resolve, CapCut, iMovie, Clipchamp)
- Presentation software (e.g., Google Slides, PowerPoint)

Project Overview & Theme

In this project, the student takes on the role of a "Geo-Detective." They will use the Geoguessr game to "drop" into ten random locations around the world. For each location, they must use visual clues to figure out where they are. But the game is just the beginning! The student will then conduct a cross-curricular investigation into five of their favorite locations, culminating in a creative video presentation or digital portfolio that showcases their findings from multiple academic perspectives.

Learning Objectives

Upon completing this project, the student will be able to:

- **(Social Studies)** Analyze and describe the human and physical geography of five distinct global locations, identifying cultural, political, and economic characteristics.
- **(Math)** Apply mathematical concepts to calculate distances, convert currencies, and analyze and represent geographical data in charts or graphs.
- **(Science)** Identify and describe the biome, climate, and significant geological or ecological features of different regions based on visual evidence.
- **(English)** Compose a descriptive and evocative travel journal entry, employing sensory details and a clear narrative voice.
- **(Health)** Research and evaluate a health-related topic, such as the nutritional value of a local dish or a regional public health consideration.
- **(Visual Art)** Create a piece of artwork that communicates the unique visual identity or "feel" of a chosen location.
- **(Video & Design Technology)** Synthesize research and creative work from multiple subjects into a cohesive and engaging digital presentation.

Step-by-Step Instructions

Phase 1: The Expedition (Data Collection - Estimated Time: 2 hours)

1. Play a game of Geoguessr with at least 10 different locations (a world map is best). The goal isn't a perfect score, but exploration.
2. For each of the 10 locations, take a screenshot of the starting panorama.
3. In your digital notebook or journal, create a log. For each location, record:
    - Screenshot of the location.

    - Your initial guess of the country/region.
    - A list of 3-5 key clues you used (e.g., "language on sign," "type of architecture," "license plate color," "sun's position," "vegetation").
    - The actual location revealed by Geoguessr.
    - Your score for that round.
4. After completing the 10 rounds, review your log and choose the **five most interesting locations** to investigate further. These five locations will be the focus for the rest of the project.

Phase 2: The Investigation (Research & Analysis - Estimated Time: 5-7 hours)

For each of your five chosen locations, complete the following research tasks in your journal. This is where you connect the clues to real-world knowledge.

- **Social Studies Detective:**
    - Identify the country, major city/region, and continent.
    - What is the primary language spoken? What is the form of government?
    - Research one significant historical event that occurred in this country.
    - Find one interesting cultural fact (e.g., a holiday, a tradition, a local etiquette).
- **Math Detective:**
    - Using Google Maps, calculate the distance in kilometers or miles from your home to the Geoguessr location.
    - Identify the local currency. Find the current exchange rate and calculate what $50 USD is worth in that currency.
    - Find the population of the country and its total area (in km^2 or mi^2). Calculate the population density (people per km^2/mi^2). Record this in a spreadsheet.
- **Science Detective:**
    - Based on the visual evidence and research, identify the location's biome (e.g., temperate forest, desert, tundra, tropical savanna).
    - What is the typical climate? (e.g., tropical wet, arid, Mediterranean). What is the average temperature for the current month?
    - Describe one unique plant, animal, or geological feature native to that region.

Phase 3: The Presentation (Creation & Synthesis - Estimated Time: 6-8 hours)

Now, synthesize all your research into a final creative project. The student will produce the following individual components and then assemble them.

1. **(English) The Travel Journal:** Choose your single favorite location from the five. Write a one-page, first-person travel journal entry as if you spent a day there. Use sensory details (sights, sounds, smells) from your research and the Geoguessr panorama to make the place come alive.
2. **(Health) The Health Report:** For one of your locations, research a common, traditional dish. In a short paragraph, describe the dish and analyze its basic nutritional components (e.g., high in protein, carbohydrates, vitamins). Alternatively, research one local health advisory (e.g., water potability, necessary vaccinations, sun exposure).
3. **(Math) The Data Visualization:** Using your spreadsheet data from Phase 2, create a bar chart comparing the population densities of your five chosen countries. Include a title and clear labels.
4. **(Visual Art) The Postcard:** Create a "postcard" for one of your locations. This can be a physical drawing or a digital creation using Canva or other software. The front should be an artistic interpretation of the location's landscape or a key landmark. On the back, write a short message summarizing what makes it special.

5. **(Video & Design Tech) The Final Briefing:** Combine all your work into a final presentation. This should be a 3-5 minute video.
    - **Structure:** Start with an introduction to the Geo-Detective project. Then, for each of the five locations, create a short segment.
    - **Content per location:** Show the Geoguessr screenshot. Briefly state the key social studies facts. Show your "postcard" art. Mention the science/biome.
    - **Integrate other elements:** At an appropriate point, show and explain your population density chart (Math). Read a portion of your travel journal entry as a voiceover (English). Briefly mention your health finding.
    - **Production:** Use video editing software to combine screenshots, your artwork, your chart, voiceover, and perhaps some background music. Add titles and transitions to make it professional.

Assessment & Evaluation

Use this rubric to evaluate the final project, focusing on the application of skills and creativity.

Category	Needs Improvement (1-2 pts)	Meets Expectations (3-4 pts)	Exceeds Expectations (5 pts)
Research & Analysis (SS, Sci)	Research is incomplete or contains significant inaccuracies. Connections between subjects are unclear.	Research is mostly accurate and complete for all five locations. Key facts about geography, culture, and science are identified.	Research is thorough, insightful, and demonstrates a deep curiosity. Student makes connections beyond the prompts.
Data Application (Math, Health)	Calculations contain errors. The chart is missing labels or is difficult to understand. Health research is superficial.	Calculations are correct. The chart is clear and accurately represents the data. Health topic is researched and clearly explained.	Data is used to draw meaningful conclusions. Chart is well-designed. Health analysis shows critical thinking.
Creative Expression (Eng, Art)	Journal entry lacks detail or voice. Artwork is a simple copy rather than an interpretation.	Journal entry is descriptive and uses a consistent voice. Artwork effectively captures the feeling of the location.	Journal entry is highly evocative and skillfully written. Artwork is creative, original, and thoughtfully composed.
Technical Execution (Video/Design)	Video is poorly structured, difficult to follow, or has major technical issues (poor audio, messy editing).	Video is well-organized, clear, and effectively combines all project components. Editing is clean.	Video is highly engaging, polished, and creatively edited. It tells a cohesive story and demonstrates a strong command of the software.

Differentiation & Extension

- **To Simplify:**
    - Reduce the number of investigated locations from five to three.
    - Use a curated Geoguessr map of "Famous Places" or "Capital Cities" to make identification easier.
    - Instead of a video, assemble the project into a digital slideshow (Google Slides) with

notes.
    - Provide templates for the research journal or sentence starters for the English component.
- **To Extend & Challenge:**
    - Instead of a world map, play a "no moving" or NMPZ (no moving, panning, or zooming) challenge to increase the difficulty of deduction.
    - In the Math component, research and apply the Haversine formula to calculate the great-circle distance between two of the locations.
    - For the Science component, research the plate tectonics of a region or the impact of climate change on that specific area.
    - For the Social Studies component, conduct a comparative analysis of the political or economic systems of two of the chosen countries.
    - Create a more advanced video project, such as a mock "documentary episode" complete with motion graphics and licensed royalty-free music.