



Teacher's Guide

Integrated Learning Concepts 2

ChronoQuest Teacher Worksheet 8



ChronoQuest is a premiere classroom tool promoting all elements of STEAM curriculum. ChronoQuest is an augmented reality (AR) experience which makes learning come alive in any subject. While ChronoQuest comes with pre-loaded content and lesson plans, this tool can be integrated, customized, and implemented for any teacher or student.

As a leader in STEAM products, HamiltonBuhl® promotes 5 Integrated Learning Concepts which you can use to bring ChronoQuest into daily teaching and learning.

Integrated Learning Concepts

- 1. Project-Based Learning page 3**
 - a. Research
 - b. Collaboration
 - c. Solving real-world problems
 - d. Content creation (Chronos)
- 2. Student-Led Presentations. page 4**
 - a. Research
 - b. Content creation (Chronos)
 - c. Presentation design and planning
 - d. Oral presentation with visual aids
- 3. Co-Teaching Across Subjects. page 5**
 - a. Two or more teachers (grade teams)
 - b. CQ as central focal point for core unit
 - i. All new material added by each teacher
 - ii. Students add/create relevant content per class
 - 1. Music added to timeline relevant to the history in music class
 - 2. Discoveries made at relevant times related to the core lesson
 - 3. Etc.
- 4. Brain-Mapping page 6**
 - a. Students track their learning at the end of each class on the timeline
 - b. Tag relevant concepts with appropriate URLs for review
 - c. Collaborate with other students to compare contrast events in different classes
 - d. Use Chronos to connect projects throughout time in their classes
- 5. Student-Centered Learning Content Delivery Tool page 7**
 - a. Teacher creates Chronos to present new material
 - b. Have students discover learning at their own pace and depth
 - c. Students use class time to explore the timeline and debrief with classmates before new lessons, during down time, or as a review of unit materials



Lesson Samples

1. Project-Based Learning:

ChronoQuest is perfectly suited for project-based learning (PBL) because it promotes research into historical events, lets your student explore content in a student-led way in which to understand and personalize their own learning. Working individually or in groups, students can address a real-world challenge and map their findings visually by creating a Chronos.

Sample Project-Based Learning Case

Project-Based Learning Challenge:	People often say “history repeats itself.” What evidence in history can you find that is reminiscent of what is happening in the world today? Create a Chronos showcasing your findings and predict what you think will happen 15 years from now.
Research:	Students will read about current events happening in the world today. Identify themes and issues that the world is facing. When in history has this been seen?
Collaboration:	In groups, students assign roles such as: historian, journalist, cartographer, visionary. Students participate in each stage of the work together, with the assigned member as leader. First, reviewing current events. Then researching historical moments that are resonant in today’s news.
ChronoQuest:	Teams create their own Chronos of events that they have researched as well as their modern day counterparts.
Solving Real-World Problems:	What were the impacts of the original events? What are the potential impacts from the current events? Compare history with modern day news. Predict what might happen and map these predictions on ChronoQuest.



2.

Student-Led Presentations:

ChronoQuest is the perfect presentation tool for student-led presentations. ChronoQuest supports oral presentation skills while providing an engaging visual aid that integrates augmented reality and curated content into an otherwise static presentation.

Sample Student-Led Presentation Case

Research:	Gender inequality is a hot button issue in today's society. Discuss how gender issues have evolved over time and what needs to change to achieve gender equality in America.
Chronos Creation:	Using ChronoQuest, students should create Chronos showing the history of the women's movement in America.
Presentation Design and Planning:	Curating and carefully aligning content in their Chronos, students should build an argument for the next steps to be achieved in order to attain total gender equality.
Oral Presentation with Visual Aids:	While fellow students explore each curated Chronos, the student presenter should act as a guide, tying the points on the timeline together, telling the story, and allowing classmates to ask questions as if they were on a tour or a walk through a museum. After the presentation walk-through, students reflect on the Chronos and give feedback to the presenter.



3. Co-Teaching Across Subjects:

ChronoQuest is a powerful tool for sharing learning between classrooms. With an interdisciplinary approach, ChronoQuest can be the connecting thread which weaves content together.

Sample Co-Teaching Across Subjects Case

Interdisciplinary Topic:	A grade team of teachers decide that they would like to co-teach a unit on music. In ELA, they analyze lyrics and write songs; in history, they study musical achievements through time; in Science they study sound waves and experiment creating their own instruments, and in Math they learn about the mathematics of sound and the creation of euphony.
Class Time:	In each subject, as students learn new material, they build a Music Chronos. The more they learn, the more is added to the timeline.
Assessment:	ChronoQuest will serve as a work product from the unit, should ask students to use the Chronos they've created to showcase the evolution of music through time, advances of technology on music, and present how music is at once it's own topic as well as intertwined with all of the core subjects.



4. Brain-Mapping:

ChronoQuest provides an excellent slate for mapping and aligning topics. As students go from class to class, Chronos can provide deep insights into innovations and inventions of the past by mapping events that necessitated new discoveries and add context to different subjects.

Sample Brain-Mapping Case

Summarize:	At the end of an Art History class period, students will add the pieces they learned to their own Chronos.
Align:	At the end of their English Literature class, students will place the texts they studied on the appropriate place in their Chronos. Having both subjects on the same timeline puts both Art History and English Literature into context, showing that art reflects life in both mediums.
Review:	With multiple class learnings on the same Chronos, students will gain a deeper understanding of history. The Chronos can be used to catalog important works for review, and give teachers the ability to pull in content from other classes for meaningful compare and contrast assignments.



5.

Student-Centered Learning Content Delivery Tool

ChronoQuest works well as a student-centered learning tool because it allows students to see a wide range of events on a timeline which are linked to websites that lead to self-paced exploration and the option to hone in on topics that are of interest to the individual learner.

Sample Student-Centered Learning Case

Content:	As an intro to a unit on evolution, the teacher can create a Chronos linking to important content for students to learn and discuss.
Pace:	At their own pace, students can discover the content, reading and reflecting on what interests them.
Depth:	When a student is excited by a topic, the attached links allow them to dive a deep into the content as they wish to go, helping to build context and richness to the student's understanding.
Collaboration:	When the teacher convenes the class together, students can share about the topic(s) they discovered as if they are putting together the pieces of a puzzle. Once students have had time to share either in small groups or as a whole class, students will have been exposed to all of the salient points of the unit.
Assessment:	After the teacher reviews relevant information as a whole class, the students can reflect on evolution as seen through the perspective of their research in short essay format.



ChronoQuest Teacher Worksheet

Consider:

- What unit(s)/lesson(s) are you teaching that could be supported by students discovering the content through ChronoQuest?
- What events are of utmost importance that students learn and understand them? When did they occur?
- What images get to the heart of the event? What should students see every time they remember that historical event?
- What primary documents, media resources, or websites do you typically show in class, but you'd like students to explore at their own pace?
- Which ChronoQuest century panels will you need to upload as trigger images?

Date	Event	Overlay Image	Media Link (Video, Song, Website, etc.)



ChronoQuest Teacher Worksheet

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