The History of Glue: A Timeline Activity

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Description of Activity

- The purpose of this activity is for students to research the history of glue use as well as explore different types of glue.
- This activity is just geared towards glue, however, you may wish to have students research music-themed events focusing on glue.

Note: *While this lesson focuses on the history of glue, you could easily modify this lesson to have students research the history of guitars/musical instruments.*

Learning Objectives:

1. Students will **list** and **summarize** key events in history related to glues.
2. Students will **create** a timeline showcasing these events.

Standards:

Common Core ELA/Literacy:

RST.11-12.1: Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.

RST.11-12.9: Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

WHST.11.12-8: Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.

Materials Required:

- Students will need to use a computer with internet access and a word processor.
- Students will need to access the following website:
http://www.readwritethink.org/classroom-resources/student-interactives/timeline-30007.html

www.guitarbuilding.org

- Note: This website works best with Mozilla Firefox (free download). The Timeline Tool also requires Flash Animation to be enabled.

Safety:

- No additional safety concerns.

References:

- ReadWriteThink's Timeline tool:
http://www.readwritethink.org/classroom-resources/student-interactives/timeline-30007.html
- Other resources may be used. For a list of sample resources for this activity, please see the answer key located at the end of this document.

Activity:

- Students will create a timeline using ReadWriteThink's Timeline Tool. Their timeline will showcase the history of glue. Please see the student handout sheet for more detailed instructions.

Assessment:

- The students will submit their timeline, description of events, and their reference sheet to be assessed.

Reviewing Faculty Cohort Members:

- Include at least two names and schools of reviewing faculty cohort members (refer to email list for faculty cohort member email addresses).

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A Sticky Situation: A History of Glue

Directions: Your task is to create a timeline of the history of glue and how glue has been used in the music industry (especially for lutherie, or guitar making).

Criteria: Your timeline must have ten entries. Each entry must have a title, short description, and an image that relates to the caption.

You will be using the Timeline tool at http://www.readwritethink.org/files/resources/interactives/timeline_2/

This works best with Mozilla Firefox! Note: Adobe Flash is required for this program.

You can organize your timeline by date, time, or event. Examples of these are provided on the website. Please enter your name and a descriptive Project Title in the fields below, then click on "Start."

To add items, click on the timeline. A box will pop up where you enter the label, short description (these two are visible), and a longer description (only visible when you print out your timeline). Upload an image that relates to the entry (e.g., a picture of the Mars probe, or a picture of an event such as the launch of a particular probe). You will need to have an image saved to your computer. You may want to search and get all of the images at once and keep them in a new folder created for this project. Once you are done, click on the check mark. Be sure to note where you retrieved these images from. You will need to turn in a separate reference sheet.

You can save your timeline to your computer. To do so, click on "save." The file will save as the title you enter, with a file extension of .rwt. Your computer most likely will not be able to open the .rwt file if you just click on it from your documents folder. To open it again, go to the website above and select "open." Click on your file.rwt and it will open in the website. You can then resume working on the file.
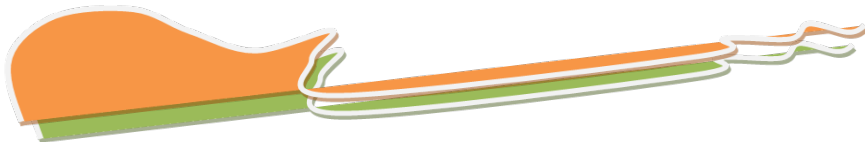
What to turn in: Once you are finished with your timeline, please select, "Finish." From there, you can save your timeline as a .pdf to print out, e-mail to yourself or your teacher, or upload to an online homework system.   Be sure to follow your teacher's instructions regarding how to turn in your work. Also, be sure to turn in a separate reference page noting where you obtained your information and images.

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A Sticky Situation: A History of Glue
References Template

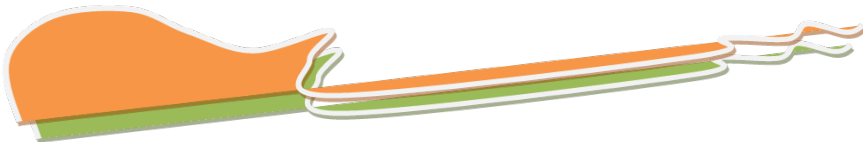| Entry #	Topic	Content (Information) Reference	Image Source
1.			
2.			
3.			
4.			
5.			
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7.			
8.			
9.			
10.			

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A Sticky Situation: A History of Glue
References Template—Sample Answer Key
Students' answers will vary

Note: *As I was researching topics for this lesson, I came across wildly different dates for many of the following events such as the first known use of glue. Some sources say 4000 BC, others 20,000 BC, and finally, 70,000 BC. There will be a lot of flexibility with this assignment.*

Entry #	Topic	Content (Information) Reference	Image Source
1.	First known use of glue	https://www.adhesives.org/resources/knowledge-center/aggregate-single/the-history-of-adhesives	http://www.rsc.org/learn-chemistry/resource/res00001540/prehistoric-pigments#!cmpid=CMP00004103
2.	Greek and Roman use of glue	https://en.wikipedia.org/wiki/Adhesive	https://en.wikipedia.org/wiki/Marquetry
3.	Genghis Khan use of glue in bows	https://en.wikipedia.org/wiki/Adhesive	https://en.wikipedia.org/wiki/Genghis_Khan
4.	Glue use in Europe	https://en.wikipedia.org/wiki/Adhesive Also, Epp, D. N., & Dianne, E. (1998). *Experimental Design: The Chemistry of Adhesives*. Terrific Science Press.	https://commons.wikimedia.org/wiki/File:Commode.jpg
5.	World's 1st glue factory opens in Holland	https://en.wikipedia.org/wiki/Adhesive Also, Epp, D. N., & Dianne, E. (1998). *Experimental Design: The	https://commons.wikimedia.org/wiki/File:De_Zwaan_Windmill_in_Holland,_Michigan.jpg

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		Chemistry of Adhesives. Terrific Science Press.	
6.	1ˢᵗ Parent for fish glue	https://en.wikipedia.org/wiki/Adhesive	https://www.stewmac.com/Materials_and_Supplies/Glues_and_Adhesives/Glues/Wood_Glues/StewMac_Fish_Glue.html
7.	Glue 1ˢᵗ used on postage stamps	https://en.wikipedia.org/wiki/Penny_Black	https://en.wikipedia.org/wiki/Penny_Black
8.	Rubber Cement	https://en.wikipedia.org/wiki/Rubber_cement Also, Epp, D. N., & Dianne, E. (1998). *Experimental Design: The Chemistry of Adhesives*. Terrific Science Press.	https://en.wikipedia.org/wiki/Rubber_cement
9.	Elmer's Glue	http://elmers.com/about/deep-roots	www.elmers.com
10.	Super Glue	https://www.popularmechanics.com/technology/a25067/the-surprising-military-history-of-superglue/	https://www.popularmechanics.com/technology/a25067/the-surprising-military-history-of-superglue/

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