



Tuesday, May 5

12:00pm

History Detectives - 4th thru 8th grade

Manhattan Project - A contributor is certain that his father worked on the Manhattan Project during World War II. His father refused to talk about his war assignment, except to say that he sold his patent to the U.S. government for a single dollar. Along with the patent, the contributor has a letter from the Atomic Energy Commission stating that his father's patent had been declassified. Galleon Shipwreck - A woman in Portland, Oregon, has a large chunk of what she believes is very old beeswax. This 23-pound block, dug up on the northern Oregon coast in the late 1930s, seems to have been deliberately carved with strange markings. Creole Poems - A HISTORY DETECTIVES fan from Chicago recently unearthed a French manuscript rolled in a cardboard tube. "Duplessis," his great-grandmother's mother-in-laws surname, is jotted in a margin, and "Rouzan," his grandmother's maiden name, appears at the bottom of another page.

After watching this episode, choose from the following questions and/or tasks to extend your learning

Question Box 1

- What was the Manhattan Project?
- During what years did World War II take place?
- What part did the atomic bomb play in World War II?
- How did Spanish Galleons protect themselves from pirates?
- What is the Spanish Galleon trail?
- What did the History Detectives find out about the odd markings on the old beeswax?
- The poems in the episode were 160 years old. Why are they considered to be primary source documents? Why are primary sources so important to history detectives?
- Could this beeswax have been cargo on a legendary ship that foundered more than 300 years ago? And what do those odd markings mean?

Question Box 2

- What is the most important thing I learned personally?
- If a part 2 of this program was created, what you like them to focus on?
- Which story was your favorite and why?
- How would you feel if you found documents from a distant relative written in a language that you cannot read? Who would you go to for help with translation?

Box 3 (Tasks)

• Research James Konant Veneer Bush's relationship to the atomic bomb. What effect did the patent purchase program have on the atomic bomb production?

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- Research Eisenhower's Atom's for Peace. What was it? Howe effective was it?
- What is the Calutron and how was it integral in the Manhattan project?
- What is a shipwreck archeologist? What other types of archeology are there? Pick three that seem interesting to you. Why did you select the ones you chose?
- The approximate cost to build the atomic bomb was \$2,000,000. The patent was sold for \$1. What fraction of the cost was the patent? Do you think that was a good value? If so, for whom? If the cost of the patent should be changed, what should it be? Justify your reasoning, use mathematics in your justification.
- The piece of beeswax that was found was 23 pounds. If that was 50% of the original, what was the weight of the original? If it was 25% of the original, what was the weight of the original piece of beeswax?

Box 4 (Enrichment)

- Research Tsutomu Yamaguchi. Who is he and how is he related to the Atomic Bomb.
- What role did women play in handling the Calutron?
- Research the Bee Lab at Oregon State University. What do the scientists do there?
 Why is it important?

Box 5 (Extend/Real-Life)

- The Manhattan project was about the development of nuclear weapons, however there are other uses for nuclear energy that may help the atmosphere. But as with any energy source there are some drawbacks. To learn more about nuclear energy and how it is produced visit the website or watch the video:
 - https://www.ducksters.com/science/physics/nuclear_energy_and_fission.php https://www.youtube.com/watch?v=44ovdxOvP_A
 - List 3 benefits of using nuclear energy.
 - List 3 drawbacks to using nuclear energy.
- California is reducing its reliance on nuclear energy. Research nuclear energy in California and list the locations of the nuclear plants.
- Brainstorm a list of alternative power sources that are being used in California. (If you get stuck as a family member for ideas)
- Watch this video to learn about how energy is generated, distributed, and delivered in California:
 - https://www.youtube.com/watch?time_continue=41&v=VMPF_U1xxew&feature=emb_I ogo
- Complete a home safety inspection:
 - https://sce.esmartonline.net/images/66263_kid_elec_inspec.pdf
 - o Did your house pass the inspection?
 - Show the results to a family member.
- The energy and utilities industry is growing very fast in California. Follow this link to learn about the careers: https://www.cacareerzone.org/clusters/CA6