Original Title: Archaeologists investigate time period of found coin.
Primary Subject Area: Social Studies
Outside Subject Area: Language Arts
Description of student roles and Problem Situation:
Students assume one of the following roles; archeologist, researcher, coin collector, historian, or librarian for the National Archeologist Society. A top archeologist has recently found a vintage American coin and needs to know what presidential timeframe the coin is from. The archeologist sends the following memorandum and documents.

Teacher: Mrs. Cynthia Fuller
Grade Level: 2nd grade

Adaptations for Student from Non-Western Culture:
I will include Committee members that are of the same culture as the student.
I will actively solicit input from the student during class discussions and/or group discussions.

Adaptations for ESOL Student:
I will include resources in the student’s native language.
I will provide translations for the documents/handouts that are provided to the students.
Tile, Learner Characteristics, and Sunshine State Standards
PBL Lesson Plan for Diverse Learners

Teacher: Mrs. Cynthia Fuller
Tile: Archaeologists investigate time period of found coin
Primary Subject Area: Social Studies
Outside Subject Area: Language Arts
Class and Level: Social Studies (only one grade level at this school)
Grade Level: 2nd Grade

Primary Sunshine State Standards:
SS.A.4.1.1: The student knows significant individuals in United States history to 1880 (e.g., revolutionary leaders, individuals important to American democracy, and individuals who fought for human rights, equality, and the common good).

SS.A.4.1.3: The student knows the history of American symbols (e.g., the eagle, the Liberty Bell, George Washington as the “father of our country,” and the American flag).

Outside Subject Area Sunshine State Standards from Language Arts:
LA.C.1.1.4: The student retells specific details of information heard, including sequence of events.

Learner Characteristics of Primary Grade Students:

Physical: Primary grade children are still extremely active.
Justification: Within this unit I plan to utilize the children’s abundant amounts of energy by having them form small groups to complete some class assignments and present their work. This will give the students a constructive outlet for their energy. (Some noise will be tolerated.)

Social: Children during this age span like organized games in small groups, but they may be overly concerned with rules or get carried away by team spirit.
Justification: It is important to teach students within this particular age group in ways that are fun and constructive to the learning process. If students are able to gain information in a fun nonthreatening way they will be more likely to retain the information they encounter. Having activities for small groups to do on the subject of George Washington will be very constructive to retaining information on him. (It will be important that the teacher lays out the rules and accounts for students following them.)
**Cognitive:** Primary grade children understand that there are different ways to know things and that some ways are better than others.

Justification: Primary grade students usually prefer that their explanations are based on evidence or that it is “fact based”. When giving an explanation it will be easy for students to point to evidence (or facts) about George Washington since most of the lesson will be fact based.

**Emotional:** Most primary grade children are eager to please the teacher.

Justification: This is an issue that will be important in this lesson and in every other lesson. Students at this age want to be assigned jobs within this classroom to help them feel that they have contributed to helping the teacher in some way. It will be of great importance that within each day that I assign different students specific jobs to help the class function as a whole. (I.e. paper distributor)

**Emotional:** Children of this age are becoming sensitive to the feelings of others.

Justification: Since there will be a lot of group assignments and activities within this lesson it will be important to make sure that the students are treating each other with respect. If the students are able to treat each other with respect then more teaching and learning can take place. (A close eye on the groups will be conducted by the teacher.)
Learning Outcomes, Student Role and Problem Situation, Meet the Problem Method
PBL Lesson Plan for Diverse Learners

Original Title: Archaeologists investigate time period of found coin.
Teacher: Mrs. Cynthia Fuller

Primary Sunshine State Standards:
SS.A.4.1.1: The student knows significant individuals in United States history to 1880 (e.g., revolutionary leaders, individuals important to American democracy, and individuals who fought for human rights, equality, and the common good).

LO #1: After reading the handout, “Top 10 Most Influential Presidents,” students will compose a short essay on at least one the listed presidents of the United States of America. A score of at least 80% is required. (Synthesis)

SS.A.4.1.3: The student knows the history of American symbols (e.g., the eagle, the Liberty Bell, George Washington as the “father of our country,” and the American flag).

LO #2: Given the handout, “American Icons,” the students will create a four lined poem on how a particular American symbol is related to a particular president. A score of at least 75% is required. (Evaluation/Synthesis)

Outside Subject Area Sunshine State Standards from Language Arts:
LA.C.1.1.4: The student retells specific details of information heard, including sequence of events.

LO #3: Given the Presidential Timeline and the Meet the Problem documents, student groups will classify important details in U.S. history on their own timeline. A score of at least 80% is required on the graph. (Analysis)

Description of Student Roles and Problem Situation:
Students assume one of the following roles; archeologist, researcher, coin collector, historian, or librarian for the National Archeologist Society. A top archeologist has recently found a vintage American coin and needs to know what presidential timeframe the coin is from. The archeologist sends the following memorandum and documents.

Meet the Problem Documents:
Memorandum, American Icon, Presidential Timeline, and Top 10 Most Influential Presidents.
Recently I discovered a vintage American coin in the Grand Canyon. This coin’s presidential background is unknown to me. I need your help in trying to determine what presidential era the coin is from.

The Museum of National Coin History wants to put the coin on display in two months. We are on a limited budget of $25,000.00 for this research and it is important that we stay within this budget. You have two months to complete this assignment. I have attached documents to help you in determining what presidential period the coin is from. There are symbols on the coin and I need to know the meaning of these symbols too. I will be in contact to collect your findings.
American Icons

Symbols of America are listed below.

George Washington  Statue of Liberty  American Flag  Abraham Lincoln  Liberty Bell

Bald Eagle  Fourth of July  Declaration of Independence  United States Constitution  Washington Monument

Lincoln Memorial  Pledge of Allegiance  Star-Spangled Banner

(taken from www.kidport.com/reflib/UsaHistory/AmericanIcons/AmericanIconIndex.htm)
United States Presidential Timeline

George Washington : 1789-1797
   John Adams : 1797-1801
   Thomas Jefferson : 1801-1809
   James Madison : 1809-1817
   James Monroe : 1817-1825
   John Quincy Adams : 1825-1829
   Andrew Jackson : 1829-1837
   Martin van Buren : 1837-1841
   William Henry Harrison : 1841-1841
      John Tyler : 1841-1845
      James K. Polk : 1845-1849
      Zachary Taylor : 1849-1850
      Millard Fillmore : 1850-1853
      Franklin Pierce : 1853-1857
      James Buchanan : 1857-1861
      Abraham Lincoln : 1861-1865
      Andrew Johnson : 1865-1869
      Ulysses S. Grant : 1869-1877
   Rutherford B. Hayes : 1877-1881
      James A. Garfield : 1881-1881
      Chester A. Arthur : 1881-1885
      Grover Cleveland : 1885-1889
      Benjamin Harrison : 1889-1893
      Grover Cleveland : 1893-1897
      William McKinley : 1897-1901
      Theodore Roosevelt : 1901-1909
         William H. Taft : 1909-1913
         Woodrow Wilson : 1913-1921
         Warren G. Harding : 1921-1923
         Calvin Coolidge : 1923-1929
         Herbert C. Hoover : 1929-1933
      Franklin D. Roosevelt : 1933-1945
         Harry S. Truman : 1945-1953
      Dwight D. Eisenhower: 1953-1961
         John F. Kennedy : 1961-1963
         Lyndon B. Johnson : 1963-1969
Gerald Ford : 1974-1977
George Bush : 1989-1993
Bill Clinton : 1993-2001

Barack Obama: 2009-

(Taken from http://www.paralumun.com/prestimeline.htm )
Top 10 Most Influential Presidents

By Martin Kelly, About.com

Of the 42 men who have been president of the United States, there are some truly clear choices of who were the most important and influential presidents. There were also many who would never have made the list. My picks for the top ten influential presidents were based on their historical influence and their actions while in office. This was a tough list to create - especially once we move past the 7th president. If one more could be added it would be Ronald Reagan. He helped bring the Cold War to an end after years of struggle. He definitely gets an honorable mention for this list of influential presidents.

1. Abraham Lincoln

Abraham Lincoln saved the Union during the American Civil War. His leadership during the war was one of no compromise but at the same time understanding that he would eventually have to unite the states once the North won the war. His actions eventually led to the abolition of slavery across the United States.

2. Franklin Delano Roosevelt

Having won four terms as president, FDR was sure to have a huge impact on the United States. His leadership throughout World War II was key to our victory. Further, he worked tirelessly to end the Great Depression including the creation of numerous programs through his New Deal to help Americans get back on their feet.

3. George Washington

As the first president, Washington couldn't help but set precedents that were followed by later presidents. His lack of a desire to be seen as a 'monarch' was an extremely important part of creating a citizen president. Also, the fact that he retired after two terms set a precedent only broken by Franklin Roosevelt. After Roosevelt's death, the two-term limit was added as the 22nd amendment to the Constitution.

4. Thomas Jefferson

Through Thomas Jefferson's Louisiana Purchase, the size of the United States doubled overnight. Jefferson was a strong states' rightest who also realized the need for consolidating power in the federal government in certain instances.

5. Andrew Jackson

Jackson's election showed the rise of the common man. He was the first president elected from humble beginnings. His popularity was huge. Further, he was a strong nationalist who often made
controversial decisions such as the removal of Native Americans east of the Mississippi. He was president during the 'Trail of Tears'. He also fought against the national bank.

6. Theodore Roosevelt

TR was an extremely influential president. Not only did he earn the title of 'Trust Buster' as president by fighting against corrupt businesses, but he also was deeply committed to conservation. He established numerous national parks to preserve the wildlife that was quickly being overtaken through industrialization.

7. Woodrow Wilson

Wilson piloted the ship that brought America onto the world stage. He made the first steps of leading us out of isolationism, violating Washington's tenet of avoiding foreign entanglements. He led America during World War I. His fervent hope was for the US to join a League of Nations, the precursor to the United Nations.

8. Harry S Truman

Harry S Truman took over after the death of Franklin D. Roosevelt. He made one of the hardest decisions in American History by deciding to drop the atomic bombs on Hiroshima and Nagasaki. He presided over the end of World War II and set precedents for leadership during the beginning of the Cold War.

9. James K. Polk

After Thomas Jefferson, James K. Polk increased the size of the United States more than any other president through the acquisition of California and New Mexico as a result of the Mexican-American War. He also claimed Oregon Territory after a treaty with England. He was a key figure in Manifest Destiny. He was also an extremely effective leader during the Mexican-American War. He is considered to be the best one-term president.

10. Dwight Eisenhower

During Eisenhower's time in office, America experienced a great amount of economic prosperity. Eisenhower also provided crucial leadership during the Cold War.

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Problem Statement, Know/Need to Know Board and Possible Resources

PBL Lesson Plan for Diverse Learners

Original Title: Archaeologists investigate time period of found coin.
Teacher: Mrs. Cynthia Fuller

Primary Sunshine State Standards:
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LO #1: After reading the handout, “Top 10 Most Influential Presidents,” students will compose a short essay on at least one the listed presidents of the United States of America. A score of at least 80% is required. (Synthesis)

SS.A.4.1.3: The student knows the history of American symbols (e.g., the eagle, the Liberty Bell, George Washington as the “father of our country,” and the American flag).
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Outside Subject Area Sunshine State Standards from Language Arts:
LA.C.1.1.4: The student retells specific details of information heard, including sequence of events.
LO #3: Given the Presidential Timeline and the Meet the Problem documents, student groups will classify important details in U.S. history on their own timeline. A score of at least 80% is required on the graph. (Analysis)

Problem Statement:
How can we, as archeologists, determine what timeframe the coin is from in such a way that
- We identify a timeframe for the coin within two months.
- We have a budget of $ 25,000.00 for research that we cannot go over.
- We determine the meaning of the symbols on the coin itself.
- We conduct the research in a manner that does not damage the actual coin.
# Know/Need to Know Sample Board

<table>
<thead>
<tr>
<th><strong>We Know</strong></th>
<th><strong>We Need to Know</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>We are researching a vintage American coin.</td>
<td>The time period of the coin.</td>
</tr>
<tr>
<td>There are symbols engraved on the coin.</td>
<td>What symbols are engraved on the coin.</td>
</tr>
<tr>
<td>The major American Icons.</td>
<td>The meaning of the symbols that are engraved on the coin.</td>
</tr>
<tr>
<td>Symbols that represent the major American Icons.</td>
<td>The presidential era of the coin.</td>
</tr>
<tr>
<td>The presidential timeline from the first president to the current president.</td>
<td>What significant events happened during the time period that the coin was created.</td>
</tr>
<tr>
<td>That the coin is not a current coin in circulation.</td>
<td>Proper tools needed for handling the vintage coin.</td>
</tr>
<tr>
<td>We know the 10 most influential presidents.</td>
<td>How to preserve the coin.</td>
</tr>
<tr>
<td></td>
<td>Why there are no more of these coins in circulation.</td>
</tr>
<tr>
<td></td>
<td>Important individuals of American history.</td>
</tr>
<tr>
<td></td>
<td>Timeline of important events in American history.</td>
</tr>
</tbody>
</table>
Resources:

Books


Videos


Websites


Capstone Performance
PBL Lesson Plan for Diverse Learners

Original Title: Archaeologists investigate time period of found coin.
Teacher: Mrs. Cynthia Fuller

Primary Sunshine State Standards:
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SS.A.4.1.3: The student knows the history of American symbols (e.g., the eagle, the Liberty Bell, George Washington as the “father of our country,” and the American flag).
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Outside Subject Area Sunshine State Standards from Language Arts:
LA.C.1.1.4: The student retells specific details of information heard, including sequence of events.
LO #3: Given the Presidential Timeline and the Meet the Problem documents, student groups will classify important details in U.S. history on their own timeline. A score of at least 80% is required on the graph. (Analysis)
The PBL Problem: How can we, as archeologists, determine what timeframe the coin is from in such a way that:

- We identify a timeframe for the coin within two months.
- We have a budget of $25,000.00 for research that we cannot go over.
- We determine the meaning of the symbols on the coin itself.
- We conduct the research in a manner that does not damage the actual coin.

How Students Will Share the Solution to the Problem:

The capstone performance for this problem contains two parts: and individual report and a group presentation. Individual students will be assessed on both of these parts by using two different rubrics-a individual report rubric and a presentation rubric.

In the individual report the students (while in character as an archeologist) will present their findings to the group. Each student will be required to describe two possible solutions to the problem and then provide four justifications for choosing one over the other. The students will also address at least one president that could have influenced the presidential timeframe of this coin. Additionally, the students will identify an important detail in U.S. history that is related to the timeframe of this coin.

The team (in groups of four) will individually rate the solutions of each group member on a “Rating Solutions” table. After rating all of the group members’ solutions the group will either pick the “best” solution or revise the solution to include several portions of solutions.

In the oral presentation, each “archeologist” will present their “best” solution to the problem and address why an alternative solution could not be the “best” solution to the problem. One member from each group will present the team’s “overall best solution.” Each member of the team must provide at least 1 justification for the team choosing this solution as their “overall best” solution. At the conclusion of the presentation students will present a four lined poem on how an American symbol on the coin is related to a particular president.

A member from the Children’s Museum, Bay County Library, Archeologist, and a Coin Collector will serve as “The Committee for the Museum of National Coin History.” The Committee will be prepared to ask individual questions to each group member on the American symbols displayed on the coin. The room will be arranged so that the Committee will be seated to the student’s left side, the fellow archeologists will be seated directly in front of the team presenting, and the team that is presenting will be standing in front of the class. Each Archeologist may use the white board for display if needed. (See Room Arrangement)
Student autonomy is incorporated in that each student will choose their individual “best” solution to the problem. Meta-cognition is also encouraged in that after each presentation the students will be required to fill out an individual debriefing survey.

**ROOM ARRANGEMENT**

**WHITE BOARD**

**PRESENTING TEAM**

**FELLOW CLASSMATES/ARCHEOLOGISTS**
Rubric for Assessing the Capstone Performance

Original Title: Archaeologists investigate time period of found coin.
Teacher: Mrs. Cynthia Fuller

Primary Sunshine State Standards:
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LO #3: Given the Presidential Timeline and the Meet the Problem documents, student groups will classify important details in U.S. history on their own timeline. A score of at least 80% is required on the graph. (Analysis)
Capstone Performance Description

The PBL Problem: How can we, as archeologists, determine what timeframe the coin is from in such a way that:

- We identify a timeframe for the coin within two months.
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How Students Will Share the Solution to the Problem:

The capstone performance for this problem contains two parts: an individual report and a group presentation. Individual students will be assessed on both of these parts by using two different rubrics—individual report rubric and a presentation rubric.

In the individual report the students (while in character as an archeologist) will present their findings to the group. Each student will be required to describe two possible solutions to the problem and then provide four justifications for choosing one over the other. The students will also address at least one president that could have influenced the presidential timeframe of this coin. Additionally, the students will identify an important detail in U.S. history that is related to the timeframe of this coin.

The team (in groups of four) will individually rate the solutions of each group member on a “Rating Solutions” table. After rating all of the group members’ solutions the group will either pick the “best” solution or revise the solution to include several portions of solutions.

In the oral presentation, each “archeologist” will present their “best” solution to the problem and address why an alternative solution could not be the “best” solution to the problem. One member from each group will present the team’s “overall best solution.” Each member of the team must provide at least 1 justification for the team choosing this solution as their “overall best” solution. At the conclusion of the presentation students will present a four lined poem on how an American symbol on the coin is related to a particular president.

A member from the Children’s Museum, Bay County Library, Archeologist, and a Coin Collector will serve as “The Committee for the Museum of National Coin History.” The Committee will be prepared to ask individual questions to each group member on the American symbols displayed on the coin. The room will be arranged so that the Committee will be seated to the student’s left side, the fellow archeologists will be seated directly in front of the team.
presenting, and the team that is presenting will be standing in front of the class. Each
Archeologist may use the white board for display if needed. (See Room Arrangement)

Student autonomy is incorporated in that each student will choose their individual “best”
solution to the problem. Meta-cognition is also encourage in that after each presentation the
students will be required to fill out an individual debriefing survey.
# Report Rubric

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Superior</th>
<th>Adequate</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content Accuracy</strong></td>
<td>30 points</td>
<td>30 points</td>
<td>10 points</td>
</tr>
<tr>
<td>Accuracy</td>
<td>All factual historic information is 100% accurate.</td>
<td>All factual historic information is 90% accurate.</td>
<td>All factual historic information is less than 90% accurate.</td>
</tr>
<tr>
<td><strong>Alignment to Problem Statement</strong></td>
<td>20 points</td>
<td>15 points</td>
<td>5 points</td>
</tr>
<tr>
<td></td>
<td>Each solution must align with all conditions stated in the problem statement</td>
<td>One solution aligns with all conditions; the other aligns with all but one condition</td>
<td>Neither solution aligns with all conditions</td>
</tr>
<tr>
<td><strong>Required Components</strong></td>
<td>50 points</td>
<td>40 points</td>
<td>10 points</td>
</tr>
<tr>
<td></td>
<td>Report must contain: a) The group’s problem statement b) One important detail in U.S. history that is related to the timeframe of the coin. c) One president that influenced the presidential timeframe of the coin. d) Two different solutions (these don’t have to be exact opposites) e) Four reasons for choosing one solution over another</td>
<td>The report contains a) One important detail in U.S. history that is related to the timeframe of the coin. b) One president that influenced the presidential timeframe of the coin. c) Two different solutions (these don’t have to be exact opposites) d) Four reasons for choosing one solution over another</td>
<td>The report contains less information than listed in the “Adequate” category.</td>
</tr>
<tr>
<td><strong>Mechanics</strong></td>
<td>10 points</td>
<td>7 points</td>
<td>3 points</td>
</tr>
</tbody>
</table>

## Scoring Guide

<table>
<thead>
<tr>
<th>Letter</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>110-120</td>
</tr>
<tr>
<td>B</td>
<td>95-109</td>
</tr>
<tr>
<td>C</td>
<td>85-94</td>
</tr>
<tr>
<td>D</td>
<td>75-84</td>
</tr>
<tr>
<td>F</td>
<td>Less than 75</td>
</tr>
</tbody>
</table>
# Oral Presentation Rubric

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Superior</th>
<th>Adequate</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Delivery</strong></td>
<td>30 points</td>
<td>20 points</td>
<td>10 points</td>
</tr>
<tr>
<td>Maintains eye contact with audience 90% or more of the time; fluctuations in volume and inflection are intended and add to clarity of presentation; volume is loud enough to be heard in back of room 90% or more of the time.</td>
<td>Maintains eye contact with audience over 80% of the time (but less than 90%); volume is loud enough to be heard in the back of the room 80-89% of the time.</td>
<td>Eye contact is less than 80%; inaudible in back of room more than 20% of the time.</td>
<td></td>
</tr>
<tr>
<td><strong>Comprehension and Accuracy</strong></td>
<td>20 points</td>
<td>12 points</td>
<td>5 points</td>
</tr>
<tr>
<td>Student answered Committee’s questions correctly, providing at least 2 historical references</td>
<td>Student answered Committee’s questions correctly, providing at least 1 historical reference</td>
<td>Student failed to answer questions correctly or could not provide a historical reference</td>
<td></td>
</tr>
<tr>
<td><strong>Quality of Individual Solution Explanation</strong></td>
<td>20 points</td>
<td>12 points</td>
<td>5 points</td>
</tr>
<tr>
<td>Individual solution aligns to all conditions in group problem statement</td>
<td>Solution aligns with all but one condition</td>
<td>Solution fails to align with 2 or more conditions</td>
<td></td>
</tr>
<tr>
<td><strong>Quality of Individual Justification Explanation</strong></td>
<td>20 points</td>
<td>10 points</td>
<td>5 points</td>
</tr>
<tr>
<td>Reason given for advocating the group “best solution” Is historically accurate and feasible</td>
<td>Reason is historically accurate, but may not be feasible.</td>
<td>Reason is not historically accurate, but may or may not be feasible.</td>
<td></td>
</tr>
<tr>
<td><strong>Poem</strong></td>
<td>10 points</td>
<td>6 points</td>
<td>0 points</td>
</tr>
<tr>
<td>Poem contains 4 lines that include:</td>
<td>Poem contains 3 lines that include:</td>
<td>Poem contains 2 lines or less. There is no description of how the president is related to a particular American symbol from the coin.</td>
<td></td>
</tr>
<tr>
<td>a) 1 president and how that president is related to</td>
<td>a) 1 president and how that president is related to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) 1 American Symbol from the coin</td>
<td>b) 1 American Symbol from the coin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflection</td>
<td>10 points</td>
<td>6 points</td>
<td>0 points</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----------------------------------</td>
<td>----------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td></td>
<td>Student answers all 5 reflection questions</td>
<td>Student answers 4 of the reflection questions</td>
<td>Student answers less than 4 reflection questions</td>
</tr>
</tbody>
</table>

**Score Conversion Chart**

- **A** 88-100
- **B** 74-87
- **C** 60-73
- **D** 50-59
- **F** Less than 50
Two Alternative Solutions and “Best” Solution Analysis

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Teacher: Mrs. Cynthia Fuller

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LO #1: After reading the handout, “Top 10 Most Influential Presidents,” students will compose a short essay on at least one the listed presidents of the United States of America. A score of at least 80% is required. (Synthesis)

SS.A.4.1.3: The student knows the history of American symbols (e.g., the eagle, the Liberty Bell, George Washington as the “father of our country,” and the American flag).
LO #2: Given the handout, “American Icons,” the students will create a four lined poem on how a particular American symbol is related to a particular president. A score of at least 75% is required. (Evaluation/Synthesis)

Outside Subject Area Sunshine State Standards from Language Arts:
LA.C.1.1.4: The student retells specific details of information heard, including sequence of events.
LO #3: Given the Presidential Timeline and the Meet the Problem documents, student groups will classify important details in U.S. history on their own timeline. A score of at least 80% is required on the graph. (Analysis)

Problem Statement:
How can we, as archeologists, determine what timeframe the coin is from in such a way that
• We identify a timeframe for the coin within two months.
• We have a budget of $25,000.00 for research that we cannot go over.
• We determine the meaning of the symbols on the coin itself.
• We conduct the research in a manner that does not damage the actual coin.

Solution One:
The archeologist determine that the coin’s timeframe of creation is somewhere between 1789 and 1809. The timeframe the archeologists give is a wide span that covers three presidential time periods. The archeologists are able to provide the timeframe of the coin within two months from the date of the assignment. They spend less than $25,000.00 on researching the coin. They determine the meaning of two of the three symbols that are on the coin itself. The two symbols they are able to decipher are of a bald eagle and the Liberty Bell. Since the coin is vintage the archeologists carefully handle the coin so as to not damage the coin in any way.
The archeologists spend less than the $25,000.00 on their research.

The archeologists are able to determine the meaning of some of the symbols on the coin.

The archeologists do not damage the vintage coin.

A timeframe for the coin is established.

**PRO**

<table>
<thead>
<tr>
<th>PRO</th>
<th>CON</th>
</tr>
</thead>
<tbody>
<tr>
<td>The archeologists spend less than the $25,000.00 on their research.</td>
<td>If the archeologists had spent the full $25,000.00 designated for the project than they could have discovered more information on the coin.</td>
</tr>
<tr>
<td>The archeologists are able to determine the meaning of some of the symbols on the coin.</td>
<td>One symbol on the coin was not able to be determined.</td>
</tr>
<tr>
<td>The archeologists do not damage the vintage coin.</td>
<td>Since the coin was under strict guidelines on the handling some of the “timeframe tests” could not be done.</td>
</tr>
<tr>
<td>A timeframe for the coin is established.</td>
<td>The timeframe established covers a wide span.</td>
</tr>
</tbody>
</table>

**Consequences:**

1) There is a defiant problem with this solution because it gives such a wide span in the timeframe of the coin.

2) There is an issue with the symbols displayed on the coin. Only two of the three symbols were established. A researcher with more money might be able to come in and figure out the third symbol on the coin.

3) If the archeologists in this solution had used the full budget more information could have been established.

**Solution Two:**
The archeologists give an exact timeframe for the coin which designated one presidential time period for the coin. The archeologist determines that the coin was created in 1801 from an engraving of the date on the coin. The archeologists are able to provide the timeframe of the coin within two months from the date of the assignment. They spend the full $25,000.00 on researching the coin. They determine the meaning of all of the symbols on the coin itself. The three symbols that the archeologists are able to decipher are of a bald eagle, Thomas Jefferson, and the Liberty Bell. Since the coin is vintage the archeologists carefully handle the coin so as to not damage the coin in any way.

<table>
<thead>
<tr>
<th>PRO</th>
<th>CON</th>
</tr>
</thead>
<tbody>
<tr>
<td>The exact timeframe is established for the coin’s creation.</td>
<td>Information on the time period is limited.</td>
</tr>
<tr>
<td>The archeologists do not go over the budget.</td>
<td>If there was more money the archeologist could most likely find more information on the coin.</td>
</tr>
<tr>
<td>All of the symbols on the coin are established.</td>
<td>Some of the symbols could be crossed with other timeframes too.</td>
</tr>
<tr>
<td>The archeologists meet the deadline.</td>
<td>If the archeologists had a longer deadline they could do more research on the coin.</td>
</tr>
</tbody>
</table>
Consequences:

1) Some of the symbols could be argued to be from other timeframes.
2) Since the coin is so old information on the time period that the archeologists have determined the coin is was created in is very limited. This lack of information will make their case not as strong as they would like it to be.

Justification:

Best solution: Solution Two. It is very important that the coin is given an exact timeframe for its creation. The coin is going to be on display in a museum and the time period is critical for its display. Also, the archeologists in this solution are able to determine the accurate meaning of all of the symbols on the coin. The archeologists give their supported information on determining the historical meaning of the symbols. Additionally, the archeologists in this solution use the full budget allotted for their research. Statistically speaking, we know that using the full budget will give way to more research and more information being uncovered.

Once the public reviews this information some people might argue a number of issues with solution two. First, they might argue that a longer deadline might have given way to more solid information being uncovered. Secondly, they might argue that the information on the time period and the symbols is limited and could (in some critics’ eyes) not be of great historical value. Also, they might argue that the symbols could be from other time periods then the one engraved onto the coin. Lastly, they might argue that the budget was either not enough or too much. No matter which solution was picked there would also be a critic on the other side of the case.

Finally, solution one is defiantly not a solid case. The timeframe for the coin covers to long of a wide time frame. Also, all of the symbols on the coin were not determined. As stated above the budget was not completely used. I believe that means more research could have been done to conclude some of the missing information.
Debriefing Plan and Coaching Questions

Original Title: Archaeologists investigate time period of found coin.
Teacher: Mrs. Cynthia Fuller

**Primary Sunshine State Standards:**
SS.A.4.1.1: The student knows significant individuals in United States history to 1880 (e.g., revolutionary leaders, individuals important to American democracy, and individuals who fought for human rights, equality, and the common good).

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- We determine the meaning of the symbols on the coin itself.
- We conduct the research in a manner that does not damage the actual coin.

**Debriefing Plan:**
All the teams of archeologists will make presentations to the “Committee” in the presence of all the other archeologist teams. The students will be able to hear all of the possible solutions from the other archeologists. The teacher will record the characteristics of each team’s proposed “best solution”. Following the presentations a handout will be given to all the students that list the characteristics of each team’s proposed “best solution”. Archeologist teams will rate each “best solution” on a numerical scale (#1 is best). For each numerical rate assigned to the solution there
are points assigned to the number. (The points chart is below.) The teacher will tally the points for each solution.

The top two solutions that receive the most points will then be examined by the whole class. The teacher will propose to the class the possibility of combining the two solutions to create a “top notch solution”. Through open class discussion the students will decide which portions of the solutions they feel are the best fit. While discussing the solutions the teacher will write on the board what portions of the solution the class wants to use.

### POINTS CHART

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25 pts</td>
</tr>
<tr>
<td>2</td>
<td>20 pts</td>
</tr>
<tr>
<td>3</td>
<td>15 pts</td>
</tr>
<tr>
<td>4</td>
<td>10 pts</td>
</tr>
<tr>
<td>5</td>
<td>5 pts</td>
</tr>
</tbody>
</table>

**Five Essential Concepts:**

The “best” solution must use accurate historical facts within the solution. This includes an explanation for each of the following:

1) The symbols that are displayed on the coin
2) The historical meaning of the symbols that are displayed on the coin
3) Assigns a presidential timeframe that the coin was created in.
4) Retells the specific details from that presidential time period.
5) How they will not damage the coin.

In addition the students must include a poem that contains four lines a president and is related to one American symbol from the coin.

**COACHING QUESTIONS:**

**C- COGNITIVE**

**M- META-COGNITIVE**

**E- EPISTEMIC**
## MEET THE PROBLEM

<table>
<thead>
<tr>
<th>TYPE OF QUESTION</th>
<th>QUESTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>What is the student role in this problem?</td>
</tr>
<tr>
<td>M</td>
<td>Are there any unfamiliar terms?</td>
</tr>
<tr>
<td>E</td>
<td>How realistic is this problem?</td>
</tr>
</tbody>
</table>

## KNOW/NEED TO KNOW BOARD

<table>
<thead>
<tr>
<th>TYPE OF QUESTION</th>
<th>QUESTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>Where could we find more out on the major American symbols?</td>
</tr>
<tr>
<td>M</td>
<td>Can you say more about the meaning on this symbol?</td>
</tr>
<tr>
<td>E</td>
<td>Why is this symbol important to American history?</td>
</tr>
</tbody>
</table>

## PROBLEM STATEMENT

<table>
<thead>
<tr>
<th>TYPE OF QUESTION</th>
<th>QUESTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>What resources might you need to know so as “not” to damage a coin?</td>
</tr>
<tr>
<td>M</td>
<td>Does everyone in your group agree on the meaning of the first symbol?</td>
</tr>
<tr>
<td>E</td>
<td>Have you considered the needs of all the stakeholders in this problem?</td>
</tr>
</tbody>
</table>

## RESEARCH

<table>
<thead>
<tr>
<th>TYPE OF QUESTION</th>
<th>QUESTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>How might you find out that information?</td>
</tr>
<tr>
<td>M</td>
<td>What does that mean?</td>
</tr>
<tr>
<td>E</td>
<td>Why is that detail important?</td>
</tr>
<tr>
<td>TYPE OF QUESTION</td>
<td>QUESTION</td>
</tr>
<tr>
<td>------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>C</td>
<td>What is the historical evidence you have to backup this solution?</td>
</tr>
<tr>
<td>M</td>
<td>How did the group arrive at this solution?</td>
</tr>
<tr>
<td>E</td>
<td>Do you think this solution would work in the real world of archeologists?</td>
</tr>
</tbody>
</table>