**Calvert County Public Schools**

**Instructional Lesson Plan**

**English Language Arts**

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| **Grade: 2 Unit Title: Serendipity Length:**  approximately 3- 4 weeks |
| **Lesson Overview:**   * Students will research inventions from a select list. (in groups of three) * Students will answer who, what, when, and how questions about their topic. (Students will work cooperatively to answer…) * They will publish research findings in PowerPoint and present to peers. (They will use Pixie to record their information and create a finished product to share.) |
| **Essential Question:**  What are some inventions that were serendipitous in their creation and how did they come about? Does the accidental nature of the invention make it and the inventor less worthy? |
| **Essential Understanding:**  Students will understand that while some inventions are well planned, researched and attempted thru trial and error, other inventions happened quite by chance. |
| **CCSS Grade Level Standards Applicable to Lesson:**  W.2.8 Gather information from provided resources to answer a question.  [W.6](http://www.corestandards.org/ELA-Literacy/CCRA/W/6/) Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.  [W.7](http://www.corestandards.org/ELA-Literacy/CCRA/W/7/) Conduct short research project based on focused questions, demonstrating understanding of the subject under investigation  [RI.2.1](http://www.corestandards.org/ELA-Literacy/RI/2/1/) Ask and answer such questions as *who, what, where, when, why*, and *how* to demonstrate understanding of key details in a text.  [RI.2.5](http://www.corestandards.org/ELA-Literacy/RI/2/5/) Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently.  [SL.4](http://www.corestandards.org/ELA-Literacy/CCRA/SL/4/) Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience. |
| **Materials:**  Pixie (template)  Index cards for note taking @ computers  PowerPoint (optional)  [www.Grolier.com](http://www.grolier.com) (dictionary)  **articles printed from resources** (This would be good for students who have trouble reading and working at the computer.)  **Graphic organizer**  **Website resources**  **Use Worldbook Online**  **SIRS**  **Britannica** |
| **Teacher Planning and Preparation:**  \*\*This unit should be introduced **after** the students have learned about some of the major inventors and inventions so they have that prior knowledge to use to compare.  <http://www.britannica.com/EBchecked/topic/292272/invention>  Offers a brief background on inventions and “serendipity”.  **Media Specialist:**  Will provide student-friendly Internet resources for students, which will be bookmarked on student computers.  Provide graphic organizers for student use. (I would give students the option of using index cards to take notes at their computers. We have done this in the past with some success. Our non-writers would have access to the others in their group to help them. Some of our 2nd graders can toggle between database and Pixie quite well.   1. Will introduce and model PowerPoint and provide student support. 2. Mini-lessons on adding graphics to PowerPoint will be presented as needed.   Option: Use Pixie to make a storyboard about the invention. Use speech bubbles to tell the story from the inventors view point. The students could also record their voices on each page as well to add additional information. Using Pixie would add to their knowledge gain from the kindergarten and first grade research projects which used Pixie for the final product. |
| **Lesson Pre- Assessment:**  What traits did the inventors you learned about have in common? Explain an average timeline from start to finish.  Do you think it’s possible to invent something by accident? Explain. |
| Lesson Procedure:   1. Introduce the vocabulary word “serendipity” to the class using the Grolier student dictionary. 2. Using the inventions unit as prior knowledge, have students answer the pre-assessment questions below. ] 3. Using list provided, distribute inventions to students. Can be random or allow students to self-select. List on smartboard and the class voted on the one to research. I like this. You could use one of the random generator tools on the Smartboard. 4. In the Media Center, students will research their invention using only the websites provided. Model 5. They will read the Internet article for information first. Used 3 articles. 6. Students will complete the graphic organizer with the facts they gleaned from their research. 7. Media Specialist will introduce and model PowerPoint and provide support as students complete their presentations. optional 8. Mini-lessons to show how to add text features to PowerPoint will be provided as needed. 9. Students will complete presentations during Computer Lab with classroom teacher support. teacher not involved 10. Students will peer edit using scoring rubric. Working in groups of three, they would assist each other along the way and edit final product together. 11. Students will present oral presentations to their classroom of peers. These could be presented in the classroom. It can be used as an oral presentation grade by classroom teachers. I like the idea of it being presented during ELA time. The actual process will take time enough during media classes. |
| **Lesson Post-Assessment:**  Journal entry: How were the inventors who planned their research different from those who invented something accidentally?  How were they the same? Was the outcome any less impressive?  If you wanted to invent something, what did you learn from both groups of inventors that would help you? |
| **Lesson Closure:**  Think about all the things you use daily from a pencil to a computer. Someone had to invent them. Imagine what we do without the innovative people who are inventors. |

List of Accidental Inventions

1. X-rays
2. Play Doh
3. Super Glue
4. Matches
5. Slinky
6. Velcro
7. Vulcanized rubber (for tires)
8. Popsicles
9. Coca-Cola
10. Post-it notes
11. Penicillin
12. Silly Putty
13. Ice-cream cone
14. Microwave
15. Potato Chips
16. Corn Flakes
17. Plastic
18. Teflon (non-stick)
19. Chocolate chip cookies
20. Mauve (the color)
21. Safety glass
22. Stainless Steel
23. Saccharin (Sweet-n-Low)
24. Cellophane (Saran Wrap)

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Serendipity Research Project**

One of the three student group members would have an extra Pixie slide with this information, a title page to the group Pixie. The group members could determine who wants to complete this slide. For a citation page, the media specialist would create a Pixie page of all the resources available for use to complete this project. One of the group members would check off the resources used by their group. The citation page would be the last page of a 5 page Pixie as the final group product.

1. **What** is the Invention? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. **Who** was the Inventor? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. **When** was it invented? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. **What** is the purpose of this invention?( Student #1)

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1. **What** was the inventor attempting to do? (Student #2)

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1. (Student #3) **How** did the unexpected invention come about? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Rubric should be revamped to include Pixie.

Source: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Serendipity PowerPoint/Pixie Scoring Rubric

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| --- | --- | --- |
| Essential Element: | Possible Score: | Score Received: |
| Name of Invention | 1 |  |
| Name of Inventor | 1 |  |
| Date of Invention | 1 |  |
| Purpose or use of Invention | 1 |  |
| Information clearly explains what the inventor was attempting and how the invention came about. | 5 |  |
| Text features:  (graphic, bold print, headings, captions, timeline…) | 2 |  |
| Proper Nouns: | (0=none correct, 1 and 2= some are correct, 3= all are correct). 3 |  |
| Citation: | 1 |  |
| Organization: | (scale of 1-3; 1=organization made information difficult to comprehend; 3= organization made comprehension clear)  3 |  |
| Total: | 18 |  |