The story of how 200 years ago, the daughter of Lord and Lady Byron, Ada Lovelace, wrote the first program - before there was electricity to make it work. Working with Thomas Babbage on the Analytical Engine, she wrote step-by-step how Bernoulli numbers could be coded for the machine.

Teaching Ideas

**Vocabulary**

Partly because England was invaded by the Norman French in 1066, many English words have French origins, and have made their way into everyday use. In this book, *baroque* and *derriere* are two of the French words used.

From the letter B, here is a small sample of English words that began as French: *baroque, bachelor, bacon, bailiff, ball (the party not the toy), bandage, banquet, barge, barrette, barricade, base, basil, basket, basset (he hound), baste (sew), batter, bauble, bayonet, beagle, beast, beautification, beauty, beef, beggar, beige, benevolent, berate, beret, bestial, beverage, bias, bigamy, bikini, billiards, billion, binocular, biopy, biscuit, bison, bistro, bizarre, biscuit, blame, blank, blanket, blemish, blister, block, blouse, boil, boisterous, bomb, bon appetite, butcher, bon voyage, border, botanic, bottle, butler, boulevard, boundary, bouquet, boutique, bowl, buzzard, brace, bracelet, Braille, branch, brave, bribe, brick, brown, brunette, brute, bucket, buccaneer, buffet, bulge, bullet, bulletin, bureaucracy, burglar, and bushel.*

- **French Throughout the Alphabet.** Have each students (in teams of 4) make a list of 10 of the most interesting words for each letter of the alphabet that started as French. Wikipedia has a good list - Google *List of English Words of French Origin*. Alternatively, give them a list of countries in the world that have contributed words to English and have them identify 15 loan words and their definitions. One of the great qualities of English is its ability to absorb words from other languages.
The Complete Sentences in French-Origin Words. Challenge students to write the longest totally English sentence, using as many words that began as French words as possible,

“The buccaneer berated the butler for boiling bacon for the buffet.” (6 words out of 11)

“The bestial brute (with bayonet drawn) browsed the banquet, barricading the beggar from crossing the boundary to the buffet.” (8 work out of 19)

Categories of Words From French. Put the words on individual cards, and ask students create categories for the words as much as possible. For example from the “b” list words about clothing include baste, bauble, beret, blouse, bracelet, brunette, bikini, and boutique. Words about food include: basil, banquet, bacon, biscuit, bistro, bon appetit, butcher, bracelet, buffet, beverage, batter, boil, and beef. Discuss what the categories might mean. For example, the French are famous for good food, so a lot of food words were borrowed.

Extreme Writing
Always present three possible topics for Extreme Writing so that students will have a choice. My book, The Power of Extreme Writing is available at ASCD for a complete explanation of this unique approach to journaling.

- Dancing in my life. Stories about watching dancing, dancing, participating in dancing, taking lessons, etc.
- Times when I was embarrassed, or someone I know was embarrassed.
- My opinion of royalty (good and bad) – the past, and the present.

Mnemonics
A great way of remembering lists of things or connections of things is through mnemonics – memory devices. Most students easily remember “In fourteen hundred and 92, Christopher Columbus sailed the ocean blue” (because it rhymes). We can remember HOMES as the names of the Great Lakes – Huron, Ontario, Michigan, Erie, Superior. Think of them as being in your HOME country,

Well, to remember when the French Revolution was, you need to think of the song, The Marseilles, and then sing,

Louis the Sixteenth was the king of France, in 1789,
He was worth than Louis the fifteenth
He was worse than Louis the fourteenth
He was worse than Lou-o-ie the Thirteenth
He was the worst...da, da, da, da
Since Louie the First.

Why does this matter to this book? It doesn’t, except that Louis XIV, the Sun King and “hero” of this book, was an extravagant builder, the richest king in Europe. His extravagance depleted the county’s financial resources. By the time his grandson, Louis XVI, helped finance the American Revolution in 1778, the country was nearly broke. By the time 1789 rolled around, it was easy for the French Revolution to ignite.

Ironically, helping the American Revolution helped cause the French Revolution.

Shoe Stuff
An important method of developing vocabulary is to look for themes; in this case, varieties of shoes. Challenge students to brainstorm in teams, the longest list they can of shoe styles. Some might include: running shoes, high heels, stiletto heels, platform shoes, slippers, sandals, rubber boots, ski boots, roller skates, roller blades, ice skates, clogs, ballet shoes, flip flops, wing-tips, moccasin, tennis shoe, pumps, cowboy boot, kitten heel, maryjanes, penny loafers, etc. Students could also be asked to identify from pictures the names of shoes and shoe styles.
The Palace of Versailles
The book says Louis XIV built the largest palace in the world. There’s a YouTube of the history of the Palace of Versailles, that could add a lot to student understanding.
https://www.youtube.com/watch?v=XxIzMr2E&ko

The Wigs and Shoes of Louis XIV
There are some nice images of Louis XIV on the Internet to show the size of his wigs, which were an important part of his style. You might also catch a glimpse of his high heel red shoes.

Roman Numerals
Although he isn’t referred to by his title in Roman numerals, King Louis is actually Louis XIV. This could be an interesting opportunity to introduce students to Roman numerals.

The website below provides a clear and entertaining explanation of how to read the numbers. Plus, it gives the reason to learn them: to read the titles of royalty, Egyptian dynasties, and the pope; to read the date of issue of movies; to read the titles of many computer games; to read the numbers on analog watches and clocks; Olympic Games (Games of the XXVIII Olympiad); for sections in the introduction to a book (section II); on public buildings and monuments; World War I and World War II; and so on.

https://all-about-roman-numerals.com/
**Sumptuary Laws**

Note the red heels of Louis XIV I in one of his portraits. There was a rule that only members of the aristocracy could have red heels on their shoes. These kinds of laws are called the Sumptuary Laws – they regulate consumption. Through history there have been many sumptuary laws, to distinguish the important from those who could afford to buy prestigious clothing but were not considered important enough to own them.

Some examples of sumptuary laws over time have been:

- Roman matrons were not allowed to be followed by more than 1 slave.
- Tyrian purple was a very expensive dye, so only the Emperor of Rome could wear a purple cloak. Roman senators could have a Tyrian purple stripe on their toga.
- In China only the highest aristocracy could have grave stele mounted on the back of a stone turtle – others had to use a rectangular pedestal.
- In Colonial Massachusetts only people who had a personal fortune of over 200 pounds were allowed to wear lace, or buttons, or silver or gold thread.

It might be interesting for students to quickly research the sumptuary laws of different cultures and times - rules about what people can wear, and not wear, eat and not eat, build and not build, etc.

The word sumptuous, meaning lavish, opulent, and grand, is related to the word sumptuary.

**Analyzing Character**

After reading the book, ask students to discuss what is implied about the character of Louis XIV by the author. Are those things true to history?

**Grasshopper Pie and Other Poems**

I think Grasshopper Pie and Other Poems was D.J. Steinberg’s first book. I was surprised to find that there grasshopper pie recipes are a “real thing”. In the poem, the boy brings actual grasshoppers to his grandmother, and madness ensues.