Learning Target: I can analyze the evolution of computers

Success Criteria/Objectives:

- ☐ summarize key events in the history of computers
- ☐ discuss the different forms and types of computers that emerged throughout history
- ☐ list key players in the history of computers
- ☐ explain how and why inventions can change the way we live

Standards: 7-8.DL.5 Transfer knowledge of technology in order to explore new technologies; New technologies could include different tools for collaboration, creation, etc. that the student has not used before.

Key Ideas: People have used mechanical calculators like the abacus since ancient times. Greek astronomers took it a step further, with precision instruments that tracked the stars. A computer is an electronic device that accepts data (input), manipulates the data (process), produces information based on the manipulation (output) and stores the results (storage). In 1884, Charles Babbage, an English mathematician, tried to build a complicated machine called the "analytical engine." It was mechanical, rather than electronic, and Babbage never completed it, but computers today are based on many of the principles he used in his design.

1. **Introduction**
    a. What is a computer?
    b. When were computers created?
    c. What do you want to learn about the history of computers?
2. **Mini Lesson:**
    a. Video History of Computers – How were Computers Invented Short Documentary or BrainPOP Computer History
        i. Watch, think, write:
            1. Jot the gist: big ideas, key points, important details, new vocabulary terms, models, diagrams, concept maps
            2. Jot any questions you have about the topic
        ii. Discuss-Talk about your notes using the sentence starters
        iii. Write-Summarize the big ideas using the key points, new vocabulary, etc.
3. **Activity**

a. Each group is assigned to a decade from the 1930-2015 of the Timeline of Computer History and reports back to the class on the major developments in computing history during that time period.

4. **Summary**
    a. Draw a timeline that shows 4 major developments in the evolution of computing/computers.
    b. Who are 2 pioneers in the history of computing? What were their contributions?
    c. How and why can inventions change the way we live?
5. **Resources**
    a. https://www.computerhistory.org/timeline/computers/
    b. https://www.britannica.com/technology/computer/The-first-computer
    c. https://www.commonsense.org/education/lesson-plans/computer-history-timeline-with-google-slides
    d. https://www.commonsense.org/education/lesson-plans/parts-of-a-computer
    e. https://educators.brainpop.com/lesson-plan/inventions-lesson-plan-origins-computers-technology/
    f. https://www.tsl.texas.gov/sites/default/files/public/tslac/ld/ld/LibrariesLiteracy/1-1%20Computer%20Basics%20Lesson%20Plan.pdf
    g. http://www.nysed.gov/common/nysed/files/programs/curriculum-instruction/computer-science-digital-fluency-standards-k-12.pdf