|  |  |  |
| --- | --- | --- |
| **TEXAS CTE LESSON PLAN**  [www.txcte.org](http://www.txcte.org) | | |
| **Lesson Identification and TEKS Addressed** | | |
| **Career Cluster** | Information Technology | |
| **Course Name** | Computer Technician Practicum | |
| **Lesson/Unit Title** | History of Information Technology | |
| **TEKS Student Expectations** | **130.311. (c) Knowledge and skills**  (1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:  (A) identify and demonstrate work behaviors and qualities that enhance employability and job advancement such as regular attendance, attention to proper attire, maintenance of a clean and safe work environment, pride in work, flexibility, and initiative;  (B) employ effective verbal and nonverbal communication skills;  (C) employ effective reading and writing skills; and  (G) demonstrate planning and time-management skills such as storyboarding and project management, including initiating, planning, executing, monitoring and controlling, and closing a project. | |
| **Basic Direct Teach Lesson**  (Includes Special Education Modifications/Accommodations and  one English Language Proficiency Standards (ELPS) Strategy) | | |
| **Instructional Objectives** | The students will be able to:   * Explain the history of computers and technology. * Describe the evolution of the computer and technology. * List the elements of a computer. * Compare and contrast the earliest iterations of the computer to modern computing. | |
| **Rationale** | Upon completion of this lesson, each student will have an understanding of the evolution of technology and how information technology impacts their lives today. | |
| **Duration of Lesson** | This lesson should take 3 class days. | |
| **Word Wall/Key Vocabulary**  *(ELPS c1a,c,f; c2b; c3a,b,d; c4c; c5b) PDAS II(5)* | None | |
| **Materials/Specialized Equipment Needed** | **Instructional Aids:**   * Student outline and handouts * Student activity handouts   **Materials Needed:**   * Butcher paper or poster board as an option for the “It’s About Time” activity * Map pencils/markers * Students can provide other materials as needed   **Equipment Needed:**   * Teacher computer | |
| **Anticipatory Set**  (May include pre-assessment for prior knowledge) | * Ask students to describe what they believe technology ‘looked like’ in the years 500 AD and earlier (they may not realize it but counting boards and abaci were the first forms of technology). * Ask students if they have ever heard of the Digesting Duck. Tell them it was the first example of an automated machine. * Students should be made aware that various forms of ‘computers’ have been in existence and used since ancient times. * Ask students: why do they think it is important to see where technology was in the past? * Present and discuss concepts of technology from early days to modern day-now. | |
| **Direct Instruction \*** | Outline | Instructor Notes |
| 1. Counting boards and abaci  2. Jacques de Vaucanson 1709 – 1782  3. Charles Babbage 1791 – 1871  4. Countess of Lovelace (Augusta Ada Byron King) 1815 – 1852  5. Konrad Zuse 1910 – 1995  6. Grace Hopper 1906 - 1992  7. John von Neumann 1903 – 1957  8. ENIAC 1946  9. Keyboards and RAMACs 1956  10. Jack Kilby 1923 - 2005  11. 1960 – Development of Major Languages  12. 1301 Disk Storage Unit  13. ASCII 1963  14. 1964  a. Networking  b. BASIC  15. 1965  16. Space race  17. UNIX  18. 1970  a. ATM  b. ARPANET  c. Shakey  19. 1972  a. 8008 CPU  20. 8800 Computer Kit  21. Steve Wozniak 1950 –  22.1977  a. PET (Personal Electronic Transistor)  b. TRS-80  c. 2600 Game console  23. Worms 1979  24. 1981  25. 1984  a. First mouse and GUI driven computer introduced  26. C++ is introduced  27. 1990  a. World Wide Web  b. Windows 3.0  28. 1991  29. 1993  a. Pentium CPU  b. Mosaic | * Use Student Notes Key as a guide for teacher presentation. * Have the Student Notes Outline ready to hand out at the beginning of class. Have students fill in the missing blanks during your presentation. * Do “It’s About Time” which involves students making and presenting their own timeline. * Have the students complete the “Peer Review” that goes with this assignment. * Do “Then and Now” have students complete both of these assignments which will take at least 4 days total for all activities, including student presentations. * Use the suggested rubrics for grading. |
| **Guided Practice \*** | The teacher will discuss and explain the changes made in information technology throughout the ages and up to 1993. Point out that as new technology is developed the lifecycle of technology shortens and advances more rapidly. This should be a reference tool for the writing assignment in this unit. | |
| **Independent Practice/Laboratory Experience/Differentiated Activities \*** | Students will perform independent research to complete the following activities.   * Create a personal timeline detailing specific IT events that have occurred within their lifetime. * Develop a multi-media presentation based on their personal timeline. * Write an essay comparing and contrasting two forms of technology. | |
| **Lesson Closure** | * What changes have taken place in information technology over the years? * How has information technology become more complex? * Which decade to you feel has experienced the biggest change? Why? | |
| **Summative/End of Lesson Assessment \*** | **Informal Assessment:**   * Daily work on assignments to monitor progress.   **Formal Assessment:**   * Rubrics will be used to assess both activities.   **Accommodations for Learning Differences:** Lessons must accommodate the needs of every learner. These lessons may be modified to accommodate your students with learning differences by referring to the files found on the Special Populations page of this website (cte.unt.edu). | |
| **References/Resources/**  **Teacher Preparation** |  | |
| **Additional Required Components** | | |
| **English Language Proficiency Standards (ELPS) Strategies** |  | |
| **College and Career Readiness Connection[[1]](#footnote-1)** |  | |
| **Recommended Strategies** | | |
| **Reading Strategies** |  | |
| **Quotes** |  | |
| **Multimedia/Visual Strategy**  **Presentation Slides + One Additional Technology Connection** |  | |
| **Graphic Organizers/Handout** |  | |
| **Writing Strategies**  **Journal Entries + 1 Additional Writing Strategy** |  | |
| **Communication**  **90 Second Speech Topics** |  | |
| **Other Essential Lesson Components** | | |
| **Enrichment Activity**  (e.g., homework assignment) |  | |
| **Family/Community Connection** |  | |
| **CTSO connection(s)** | SkillsUSA  Technology Student Association | |
| **Service Learning Projects** |  | |
| **Lesson Notes** |  | |

1. Visit the Texas College and Career Readiness Standards at <http://www.thecb.state.tx.us/collegereadiness/CRS.pdf>, Texas Higher Education Coordinating Board (THECB), 2009. [↑](#footnote-ref-1)