1 Exploring the Evolution of Computers

Title: Understanding the Evolution of Computers

Description: Students will explore the history and evolution of computers by engaging in hands-on activities that illustrate how ancient and modern computers functioned.

Purpose: The purpose of this practical is to help students understand the progression from ancient computing tools to modern computers. This will deepen their appreciation of how technology has advanced over time and how modern computers have evolved from simple calculation tools.

Group Activity: Creating a Timeline of Computer Evolution

Steps:

1. **Form Groups:**
    - Divide the class into small groups (3-4 students per group).
2. **Assign Time Periods:**
    - Assign each group a specific period from the evolution of computers:
        - **Group 1:** Ancient Computers (e.g., Abacus)
        - **Group 2:** First Generation Computers (1937 – 1959)
        - **Group 3:** Second Generation Computers (1959 – 1965)
        - **Group 4:** Third Generation Computers (1965 – 1971)
        - **Group 5:** Fourth Generation Computers (1972 – 2010)
        - **Group 6:** Fifth Generation Computers (2010 Onwards)
3. **Research & Presentation:**
    - Instruct each group to research their assigned period using the information provided.

- Ask them to use the provided computer to search for images related to their assigned period (e.g., search for "Abacus," "ENIAC computer," etc.):

    - Open a web browser
    - Visit Google Images.
    - Type in the name of their period (e.g., "Abacus," "ENIAC," "Intel 4004," etc.).
    - Review the images and select a few that best represent their period.

- Groups should prepare a short presentation about the key features of their period, including a visual demonstration.

4. **Create a Timeline:**

    - After the presentations, each group will place their findings on a large timeline displayed in the classroom.

    - The timeline should include:
        - A title for their period.
        - A brief description of the main developments.
        - Images printed from the computer or drawn by students.
        - A comparison of the technology of that era to today's technology.

5. **Discussion & Reflection:**

    - After all groups have presented, lead a class discussion to reflect on how computers have evolved.

    - Ask questions like:
        - "What was the most surprising thing you learned about ancient computers?"
        - "How do you think these old computers compare to the ones we use today?"

By participating in this group activity, students will develop a clear understanding of how computers have evolved over time. They will also gain experience in researching, collaborating with peers, and presenting their findings to the class.