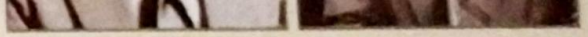
refrigerators and so on.

Robert Noyce and Jack Kilby invented the chip.



Robert Noyce Jack Kilby

CHECK YOUR PROGRESS

Fill in the blanks.

1. Vacuum tubes were made of glass and gave off a lot of heat just like light bulbs.
2. A small electronic device called the transistor was invented in 1947.
3. RCA 501, was built using transistors
4. The integrated circuit is also called the Silicon chip.

FOURTH-GENERATION COMPUTERS (1971–PRESENT)

computers

TEST YOURSELF

A. Tick (✓) the correct answer.

1. The ENIAC gave off heat because it was built with
   a. vacuum tubes. b. transistors. c. integrated circuits.
2. The second generation of computers started in
   a. 1940. b. 1944. c. 1959.
3. Which of the following was used in the third-generation computers?
   a. Integrated circuit b. Transistor c. Vacuum tube
4. A complete CPU on a single chip is called a
   a. motherboard. b. microprocessor. c. control unit.
5. PC stands for
   a. picture contrast. b. page color. c. Personal Computer.

B. Correct the following sentences by changing the underlined word.

1. In first-generation computers vacuum tubes were replaced with transistors.
2. Transistors were made of glass.
3. The integrated circuit was invented in 1947.
4. In third-generation computers, integrated circuits replaced vacuum tubes that could perform operations faster.

Second generation
vacuum tubes
1959
Transistor

C. Match the columns.

1. RCA 501
2. IBM 360
3. Personal Computer
4. ENIAC

a. first-generation computers (4)
b. fourth-generation computers (3)
c. second-generation computers (1)
d. third-generation computers (2)

D. Answer these questions.

1. Mention any three differences between first-generation and second-generation computers.
2. Why were transistors better than vacuum tubes?
3. Computers of which generation were based on transistors?
4. Why have computers shrunk in size over the years?
5. What is a microprocessor?
6. What do you know about fourth-generation computers?

PROJECT WORK

- Make a chart comparing the computers from the different generations. You can compare their sizes, speed and memory capacity.

Teacher's notes

- The teacher can show a vacuum tube, transistor and an integrated circuit to the students to help them understand the difference between these electronic devices.
- The students can be divided into groups–one for each generation. Each group should be asked to explain to the others about the computers of their generation.