**Министерство образования Республики Башкортостан
УФИМСКИЙ ГОСУДАРСТВЕННЫЙ КОЛЛЕДЖ РАДИОЭЛЕКТРОНИКИ**

Открытый урок

на тему

«History of computers»

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History of computers

Vocabulary

Calculating device	['kælkjuleɪtɪŋ]	Вычислительное устройство
Multiple of tens	['mʌltɪpl]	Кратные десяти
Abacus	['æbəkəs]	Счёты; абак(a)
Calculus	['kælkjuləs]	Исчисление
Data	['deɪtə]	Данные
Processing	['prəusesɪŋ]	Обработка
Bead	[biːd]	Шарик
Gear wheel	[gɪə] [(h)wiːl]	Зубчатое колесо
Square root	[skweə] [ruːt]	Квадратный корень
Warehouse	['weəhaus]	Хранилище

Vocabulary

To devise	**[dɪ'vaɪz]**	Разрабатывать
Linear	**['lɪnɪə]**	Линейный
Equation	**[ɪ'kweɪʒ(ə)n]**	Уравнение
Addition	**[ə'dɪʃ(ə)n]**	Сложение
Multiplication	**[ˌmʌltɪplɪ'keɪʃ(ə)n]**	Умножение
Subtraction	**[səb'trækʃ(ə)n]**	Вычитание
Evaluation	**[ɪˌvælju'eɪʃ(ə)n]**	Вычисление, определение
Division	**[dɪ'vɪʒ(ə)n]**	Деление

Active / Passive Verb Forms

The professor	teaches	the students.
subject doing action	verb	object receiving action

John	washes	the dishes.
subject doing action	verb	object receiving action

Active / Passive Verb Forms

The students — are taught — by the professor.

subject
receiving action

passive verb

doing action

The dishes — are washed — by John.

subject
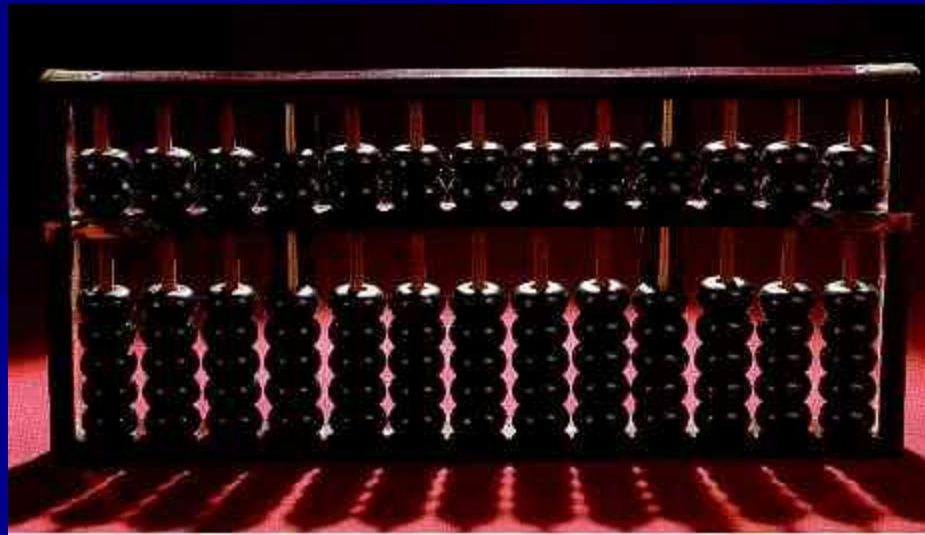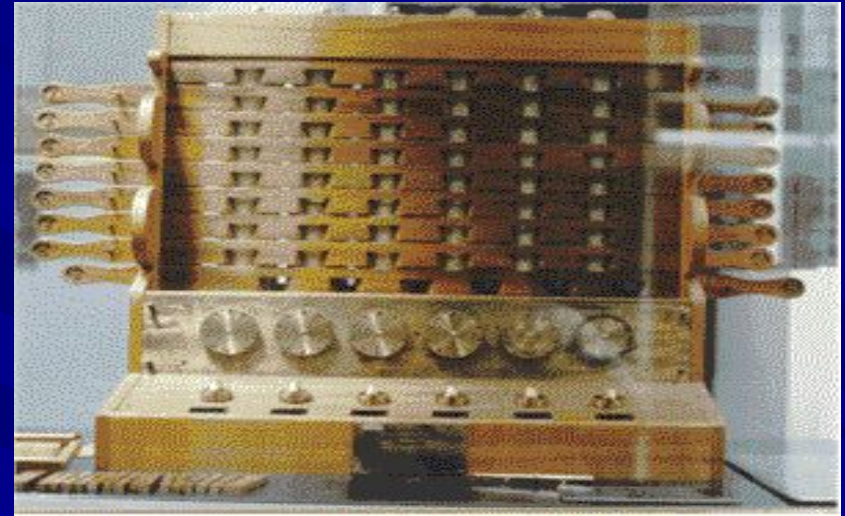receiving action

passive verb

doing action

Examples

	Active	**Passive**
Simple Present	Once a week, Tom **cleans** the house.	Once a week, the house **is cleaned** by Tom.
Simple Past	Once a week, Tom **cleaned** the house.	Once a week, Tom **was cleaned** the house.

THE VERY FIRST CALCULATING DEVICE

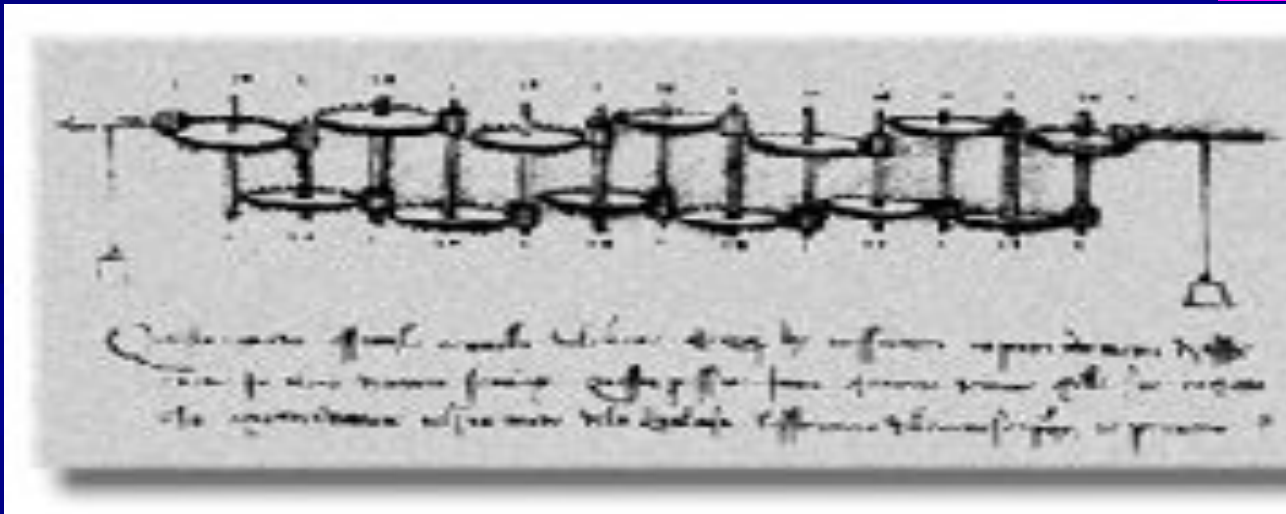# THE FIRST CALCULATING DEVICES

The First Calculating Devices

Then people invented the abacus, a bead frame in which the beads are moved from left to right. People went on using some form of abacus well in the 16th century. In fact, the oldest abacus was used in 300 B.C. by the Babylonians. The abacus is still in use today, principally in the far east.

LEONARDO DA VINCI

In XV century *Leonardo da Vinci* invented the summing device with gear wheels carrying out addition of 13-digit numbers.

WILHELM SCHICKARD

In XVI century the German professor *Wilhelm Schickard* invented summing «calculating clock». It carried out addition and multiplication of 6-digit numbers.

BLAISE PASCAL

The first mechanical adding device was developed in 1642 by the French scientist-philosopher, Pascal. His machine «Pascalina» carried out addition and subtraction of 8-digit numbers.

V. G. LEIBNIZ

In 1671 Leibniz, a German mathematician and philosopher invented the mechanical adding device which was capable of also doing multiplication, division and the evaluation of square roots by a series of stepped additions, not unlike the methods used in modern digital computers.
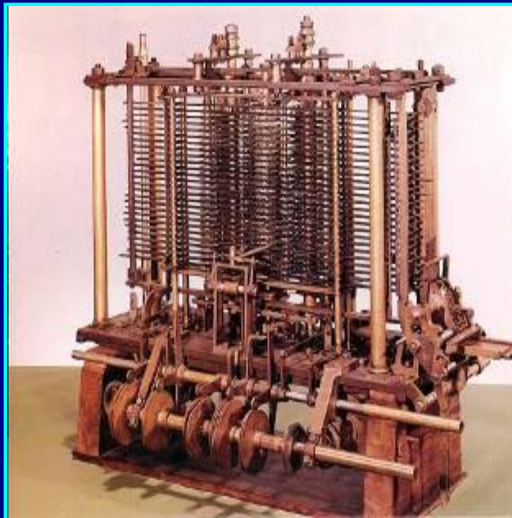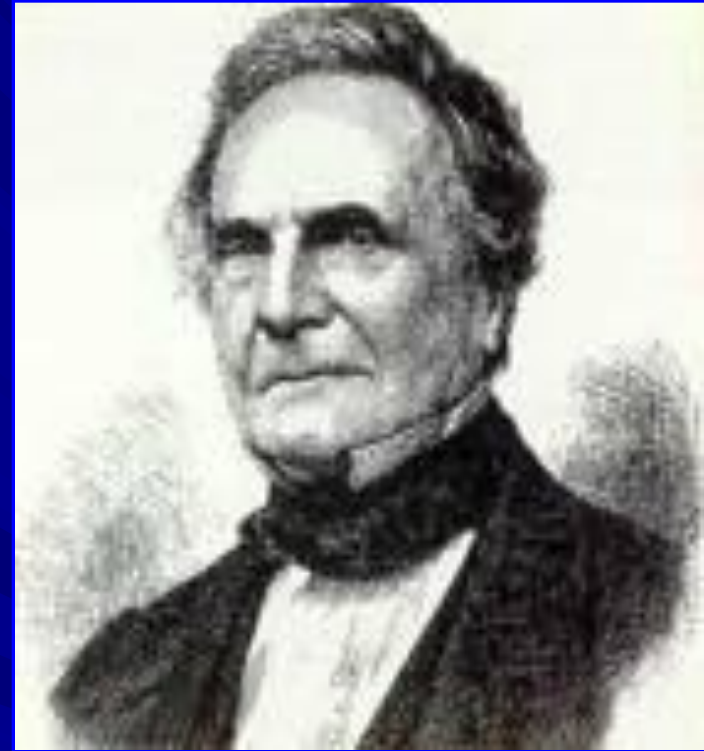
CHARLES BABBAGE

Charles Babbage, an Englishman invented the first calculating machine in 1830. It was called «the Analytical Engine».

It carried out automatic calculations:
- Warehouse (data storage);
- Office (management);
- Data input and
program with punched cards.

Generations of computers

- The first generation of computers

- The second generation of computers

- The third generation of computers

- The fourth generation of computers

- The fifth generation of computers

GENERATIONS OF COMPUTERS

Generations	Components used	Advantages	Disadvantages	Examples
First (1946-1954)				IBM700,ENIAC, EDVAC
Second(1955-1964)				IBM7090, IBM7094 I, IBM9094 II
Third(1965-1974)			-	IBM/370 series, Cyber175
Fourth(1975-1984)				CRAY Y_MPC, WIPRO LANDMARK 860
Fifth(1985-present)			-	Windows 2000, Xp, Linux

GENERATIONS OF COMPUTERS

Generations	Components used	Advantages	Disadvantages	Examples
First (1946-1954)	Vacuum tubes	Machine Language	Costlier, more space, excess power	IBM700,ENIAC, EDVAC
Second(1955-1964)	Transistors	Less expensive, less power, Cheaper & small in size	Used Assembly Language	IBM7090, IBM7094 I, IBM9094 II
Third(1965-1974)	Integrated circuits, Semi conductor memory	Smaller, Faster, Cheaper	-	IBM/370 series, Cyber175
Fourth(1975-1984)	VLSI chips	Faster, Less power consumption	Uses one or more microprocessors	CRAY Y_MPC, WIPRO LANDMARK 860
Fifth(1985-present)	ULSI	Very high performance, Easy access, Multiprocessing	-	Windows 2000, Xp, Linux

Frequently Asked Questions

 Explain different generations of computers?

Quiz

1. How many generations computers are there?

a. 1

b. 4

c. 5

d. 8

Answer: c

Quiz

2. The third generation computers used

a. vacuum tubes

b. transistors

c. integrated circuits

d. microprocessors

Answer: c

Quiz

3. The second generation computers used

a. vacuum tubes

b. transistors

c. artificial intelligence

d . microprocessors

Answer: b

Quiz

4. The first generation computers used

    a. vacuum tubes

    b. transistors

    c. artificial intelligence

    d. microprocessors

Answer: a

Quiz

5. The fourth generation computers used

   a. vacuum tubes

   b. transistors

   c. integrated circuits

   d. microprocessors

Answer: d

Quiz

6. The fifth generation computers used

    a. vacuum tubes

    b. transistors

    c. artificial intelligence

    d. microprocessors

Answer: c

Quiz

7. Who is "a father of the computer"?
   a. Charles Babbage
   b. Konrad Zuse
   c. Blaise Pascal
   d. Leonardo da Vinci

Answer: a

Quiz

8. Computers were developed to perform calculations for military and scientific purposes.

a. Компьютеры были созданы, чтобы выполнять вычисления для военных и научных целей.

b. Созданные компьютеры выполняли вычисления военного и научного назначения.

c. Компьютеры создали для выполнения военных и научных вычислений.

Answer: a

Homework

- **Quantum computers**

- **Biocomputers**

- **Molecular computers**

- **Optical computers**