Student learning outcome (SLO):

• Early calculating devices	• Evolution of computers
• Characteristics of Computers	

Overview:
The main purpose of this lesson is to reinforce early calculating devices and evolution of computers. Know how about the characteristics of computers.

Introduction:

The purpose of this guide:
- It is designed to introduce you to the relevant support material about early calculating devices. It helps you to organize and plan your teaching.
- Understand the different generations of computers
- Encourage the students to know the difference between early calculating devices and modern day computers.
- Introduction to artificial intelligence

Some interesting video related to this topic is:

https://www.youtube.com/watch?v=Uos53AX7OdM	

Resources:
A toy abacus, mobile phone, flash cards with pictures

Key terminology:
Abacus, Napier's bones, Pascaline, Difference engine, Analytical engine, ENIAC, EDSAC, UNIAC 1, Artificial intelligence, Diligence, Versatility

Activities:

1. Arrange two types of cut-outs; ones for the **generations** and the others for the **characteristics**. Divide the class into two groups. Give the cut outs of the generations to first group. And the cut outs with the characteristics to the second group. Ask them to match the cut outs.

2. Make a four column table and distinguish amongst the four generation computers on the basis of size, main component used and efficiency.

3. How will computers be used in the future? Make some rough notes or design to demonstrate your ideas.

Essential questions:

Before starting the lesson, ask some questions to explore the background knowledge of students:

1. What is computer?
2. What was the size of the computers in 19's?
3. Who is the father of the computers?
4. Have you ever seen a robot? What does it look like?
5. Do you know about AI?
6. How people count in the ancient times?

A Computer

Scheme of Work

Unit	Lesson No	Topic wise allocation of periods	Lecture and Activity	Worksheet
A Computer	Lesson 1	1 Period	Early calculating devices (Abacus, Napier's bones)	Questions (ii)
	Lesson 2	1 Period	Early calculating devices (Pascaline, Difference and analytical engine)	
	Lesson 3	1 Period	Generations of computers (first, second)	Questions (i)
	Lesson 4	1 Period	Generations of computers (third, fourth and fifth)	
	Lesson 5	1 Period		Question (iii, iv)
	Lesson 6	1 Period	Examples of first generation computers	Question (v-vi)
	Lesson 7	1 Period	Examples of first generation computers	Question (vii-viii)
	Lesson 8	1 Period	Artificial intelligence	Crosswords and jumbled words
	Lesson 9	1 Period	Characteristics of computers	MCQs and Fill ups
	Lesson 11	1 Period	Characteristics of computers	T/F and columns
	Lesson 12	1 Period		Identify the early calculating and word search
	Lesson 13	1 Period		Comprehension, Drag and drop
	Lesson 14	1 Period	Interesting information	Abbreviation
	Lesson 15	1 Period	Make up lecture	

	Lesson 16	1 Period	Practical	
	Lesson 17	1 Period	Revision	
	Lesson 18	1 Period	Revision	
	Lesson 19	1 Period	Test (Subjective)	Written
	Lesson 20	1 Period	Test (Objective)	Written
Total	**20 lessons**	**20 periods**	Assessment	