

From Babbage to Cray

A brief history of computers

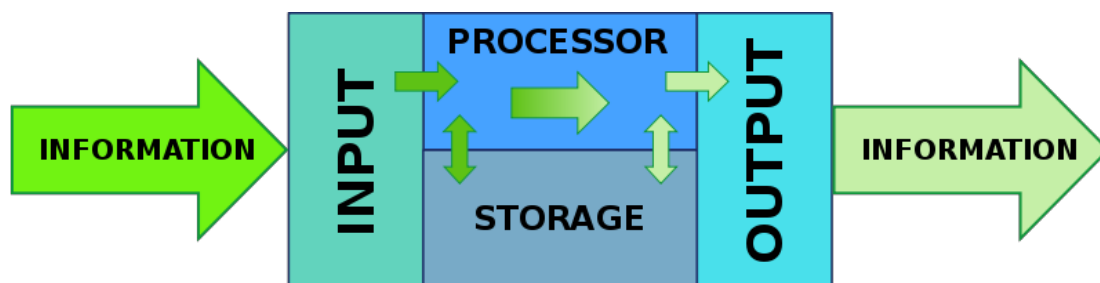
First we have to establish what a computer is. Is it as simple as an abacus? Or can we call a slide rule a computer?



Discuss this subject with the students. This Wikipedia article may be helpful.

http://en.wikipedia.org/wiki/History_of_computing_hardware

The discussion should end in an agreement that a computer is a device with input, calculation, storage and output.



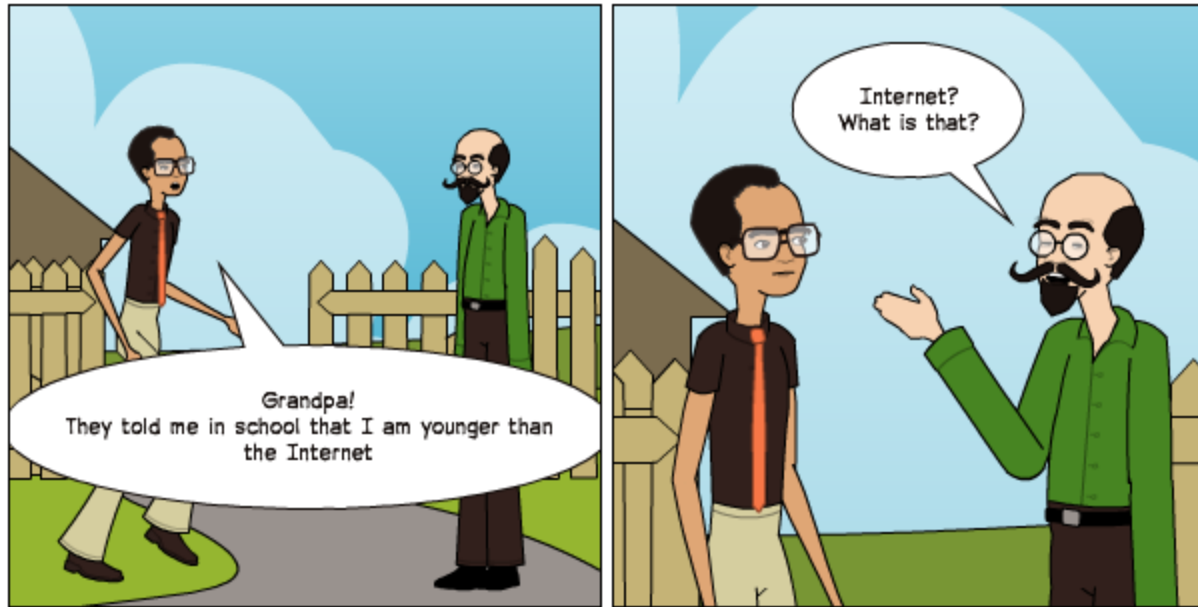
Here is a link to the definition of a computer: <http://en.wikipedia.org/wiki/Computer>

If you want to extend this discussion you can add the topic using problem based learning (PBL)

"What would the world be like without computers?"

What is the difference in the world now compared to before we had computers

http://en.wikipedia.org/wiki/Problem-based_learning



Working in groups

First introduce the students to some historic facts about computers.

<http://en.wikipedia.org/wiki/Computer>

<http://www.historyofcomputer.org/>

Use this link and do a work in groups on the following topics. One topic each group

<http://www.computerhope.com/issues/ch000984.htm>

The groups task is to find out more about the inventor and his work. What did other people think? Was the world ready for this kind of technology? What did the world look like in the present year and what other technology was present at that time?

- In 1822, Charles Babbage purposed and began developing the **Difference Engine**, considered to be the first automatic computing engine that was capable of computing several sets of numbers and making a hard copies of the results.
- The **Z1**, originally created by Germany's Konrad Zuse in his parents living room in 1936 to 1938 and is considered to be the first electro-mechanical binary programmable (modern) computer and really the first functional computer.

- The **Colossus** was the first electric programmable computer and was developed by Tommy Flowers and first demonstrated in December 1943. The Colossus was created to help the British code breakers read encrypted German messages.
- The **ENIAC** was invented by J. Presper Eckert and John Mauchly at the University of Pennsylvania and began construction in 1943 and was not completed until 1946. It occupied about 1,800 square feet and used about 18,000 vacuum tubes, weighing almost 50 tons. Although the Judge ruled that the ABC computer was the first digital computer, many still consider the ENIAC to be the first digital computer because it was fully functional.

The groups produce a presentation about their topic and present it for their classmates. They can use Google docs, Prezi etc.

Then they can collect their work and together write an article about all the topics above in a Wiki. For example Wiki Spaces.

<http://www.wikispaces.com/>