

Lesson Plan Title:
Back To The Future: In His Own Words**Overview:**

Gordon Moore's 1965 article *Cramming More Components Onto Integrated Circuits*, attempted to paint a picture of the technological future. Over time it became known as Moore's "Law." Students will read and discuss the original document and research the online exhibition *The Silicon Engine: A Timeline of Semiconductors in Computers* for technological developments between 1965 and 1975.

Note: The quote marks around the word "Law" are used because it is not a law of nature. It is an observation that became a self-fulfilling prophecy as competing companies established their technology development plans to meet its expectations.

Objective:

To enable students to work with primary source documents and to comprehend their importance as tools for learning history.

Vocabulary Words and Key Phrases

Integrated Circuit (IC)

Moore's "Law"

Semiconductor

Silicon

Wafer

Website References:

The online exhibition *The Silicon Engine: A Timeline of Semiconductors in Computers* will provide a wealth of resources and information. See the *Timeline*, *People*, *Companies*, and *Glossary* sections at: <http://www.computerhistory.org/semiconductor/>

Specifically for this assignment see:

1965 - "Moore's Law" Predicts the Future of Integrated Circuits milestone at:
<http://www.computerhistory.org/semiconductor/timeline/1965-Moore.html>

"Cramming More Components onto Integrated Circuits" link to pdf of article
http://download.intel.com/museum/Moores_Law/Articles-Press_Releases/Gordon_Moore_1965_Article.pdf

The subject matter of the lesson plan will inspire students to expand their research on the Web. Additional suggested website links are provided below:

Intel Museum online page of documents related to Moore's "Law"
http://www.intel.com/museum/archives/history_docs/mooreslaw.htm

Teaching Strategy/Procedure:

1. Students will read Gordon Moore's 1965 article *Cramming More Components onto Integrated Circuits* and write a one-page summary answering the following questions: What was Gordon Moore's vision for the high tech industry and did it materialize itself? Give 1-2 examples. Which technological advancements helped to make that happen?
2. Have students imagine themselves as the scientist Gordon Moore, in search of support from a venture capitalist and from the dean of the local university for the continuation of his project. Ask each student to choose from the text the argument that would convince each of these two potential supporters and write a paragraph for each argument.

Materials:

Read the article *Cramming More Components Onto Integrated Circuits* written by Gordon Moore in 1965 and review other web resource links listed above.