

Sizzling Semiconductor Summer for Grades 3-6



Computer chips are everywhere—powering the Internet, controlling cars, automating factories, enhancing cell phones, and enriching home entertainment. **A free program** at the Intel Museum helps children learn about computer chip science while completing fun, hands-on activities during a summer drop-in program.

Four Different Themes

- **Code and Conductivity.** Discover how computers “talk” while decoding a secret message written in binary code, and then check your knowledge by creating a binary key chain. Test the conductivity of different materials to learn about semiconductors, such as silicon, that can conduct electrical current or block its passage.
- **Sensational Circuits.** Explore the inside of a laptop computer and then build a musical greeting card using the Intel-Powered Classmate PC. Discover that a computer chip the size of a fingernail contains millions of circuits.
- **Keeping It Clean.** The process for making computer chips is called *fabrication*, and the factories where they are made are called fabrication facilities, or *fabs*. Learn why tiny dust particles are not welcome in a fab. Conduct an experiment to count particles in the air, and try on a cleanroom (bunny) suit to see how technicians help protect the computer chips that they make.
- **Fabulous Fabs.** Learn how sand is transformed into silicon. Discover how Intel uses a “recipe” to make different types of computer chips and how technicians perform as many as 300 steps that use chemicals, gas, or light to complete fabrication. See the magic of UV light and explore chemical reactions while completing hands-on activities.

Drop-in Times and Dates

Each program lasts about 45 minutes. Participants can drop in at the museum on Monday, Wednesday, Friday, and Saturday (except as noted) between 10 a.m. and 4 p.m. on any of the program dates, **no reservations are required.**

Code and Conductivity: July 25, 27, 29 and 30

Sensational Circuits: August 1, 3, 5 and 6

Keeping It Clean: August 8, 10, 12 and 13

Fabulous Fabs: August 15, 17, 19 and 20

Each program includes guided and self-paced activities. All participants must be accompanied by an adult who remains in the museum during the program.

About the Museum

The Intel Museum was created in the early 1980s to record the history of Intel Corporation, including its role in the advancement of silicon technology. Admission and parking are free. The museum and museum store are open from 9 a.m. to 6 p.m. Monday through Friday, and from 10 a.m. to 5 p.m. on Saturday, excluding holidays and scheduled closures. The museum is located inside the Intel Robert Noyce Building at 2200 Mission College Blvd., Santa Clara, Calif.

Field Trip Programs

The Intel Museum introduces students to the world of micro-miniature computer chips, where millions of electronic components are packed onto quarter-inch squares of silicon and time is measured in billionths of seconds.

Binary code, conductivity, and microprocessor history and design are only a few of the many fascinating areas of the chip industry that the Intel Museum introduces to students. Interactive exhibits and hands-on labs let students explore concepts and conduct their own experiments to learn more about technology. A group visit usually lasts two hours. It includes a guided tour and interactive lab led by a knowledgeable museum instructor, or consists of a self-guided tour supported by fun activity books.

For More Information

To learn more about *The Sizzling Semiconductor Summer* program and the museum, call 408.765.0503, or visit www.intel.com/museum