

total science safety system

“Based on extensive continuing national and individual state research studies by Dr. Jack A. Gerlovich, and colleagues, the comprehensive training and CD-ROM programs are designed to inform teachers of their professional responsibilities and to provide them the tools and confidence to address them.”

The Total

Target Audience

Continually refined since its creation in 1986, the interactive CD-ROMs are without a doubt, the most comprehensive, interactive, customizable science safety tools available to educators today. The Secondary version is now on its 11th edition, while the Elementary is in its 6th edition. They represent 15 years of research and application. The programs are now in widespread usage in approximately 10,000 schools throughout the United States. The authors collectively encompass 200 years of educational, computer and legal experience. As of 2002 custom versions of the software and/of CD-ROMs have been produced for 15 states. In addition nearly 500 training programs have conducted nationwide. The CD-ROM and software programs are the format preferred by today's professional educators (teachers, supervisors, administrators, college pre-service instructors, state agency personnel) since they can be further customized to meet individual district or teacher needs and printed as desired.



Secondary Edition

The **Total Science Safety System- Secondary**, 2002 JaKel, Inc. CD-ROM programs are unique to each state. **The National Secondary Edition of Total Science Safety System** is:

A “comprehensive” safety tool designed to aid pre-service and in-service science educators in locating and applying applicable federal and state laws, codes, and standards; performing and documenting safety audits; and electronic options for establishing and managing chemical storerooms. Approved chemical disposal options can also be provided.

Although the CD is typically structured into four to five major **Directories** (A message from the State Department of Education, Using this CD, Safety Book, Forms/Checklists and Chemicals), it is generally customized to meet specific state laws, regulations (EPA, OSHA, etc.) and professional standards. An automated searchable word and phrase **Indexing System** is included, allowing instantaneous access to all information. The CD also includes numerous **interactive weblinks**, **safety graphics**, **safety videos** (showing messages from select agencies and safety techniques), and **virtual reality segments**. The CD operates **cross-platform** (Macintosh, and Windows).

Specializing in Science Education Safety since 1986

Science Safety



Elementary Edition

The **Total Science Safety System-Elementary** CD is now in its 6th edition. It is currently in use in 4,000 schools throughout the United States.

It is a “comprehensive” safety tool designed to aid pre-service and in-service science educators in locating and applying applicable federal and state laws, codes, and standards and; performing and documenting safety audits.

The CD is structured into two major **Directories**, Safety Book and Forms/ Checklists. It is generally customized to meet specific state laws, regulations (EPA, OSHA, etc.) and professional standards. An automated searchable word and phrase **Indexing System** is included, allowing instantaneous access to all information. The CD also includes numerous **interactive weblinks**, **safety graphics**, **safety videos** (showing messages from select agencies and safety techniques), and **virtual reality segments**. The CD operates **cross-platform** (Macintosh, and Windows).

Directory Components

Safety Book

1. Why all the concern about science safety today?
2. What are my legal responsibilities in science teaching?
3. What are my teaching duties within the law?
4. How do I perform a safety assessment?
5. Where do I find additional information?

Interactive Forms and Checklists

Forms

- Accident/Incident Report
- District/Department Safety Policy
- Outside Presenter
- Request for Correction of Safety Concern

Checklists

- Chemical Hazards
- Hazard Classrooms
- Earth Science
- Field Trips
- General Science
- Life Science
- Physical Science

“The best science safety device in any science setting is an informed teacher.”

System



Workshops Available

Workshops are premised on the CDs and are designed to help educators meet the increasingly complex challenges of science teaching by making participants aware of applicable professional standards and ethical issues. They are valuable institutes for science educators and administrators to assimilate and put into practice the recommended safety measures which could help avoid student injury and complications. Agendas are flexible and based on these goals:

1. Address safety parts of the National Science Education Standards.
2. Improve the knowledge and understanding of laws, codes, regulations, and accident case studies as they relate to science education safety.
3. Demonstrate a proven, CD-ROM based safety assessment system for elementary and secondary classrooms and field science settings, as well as techniques and equipment.
4. Demonstrate a comprehensive CD-ROM based safety managed department program to help meet OSHA's standards (Lab Standard Chemical Hygiene Plan Right-To-Know, Bloodborne Pathogens).
5. Familiarize participants with the location and proper use of safety equipment.
6. Assist administrators, supervisors and teachers in lab design and/or renovations.
7. Provide tools for chemical labeling, storage and hazard assessment.

jakel@netins.net

JaKel, Inc.

Personnel



Dr. Jack Gerlovich is a Professor of Science Education at Drake University. He is a nationally recognized science education safety expert and President and founder of JaKel, Inc. He served as the State Science Supervisor for the Iowa Department of Education for 10 years. Dr. Gerlovich has authored numerous books, journal articles and software, and CD-ROM packages related to science education safety. He has conducted hundreds of safety workshops and school safety assessments.

He has also taught at all levels of education and served as a science safety consultant for the courts, government, education and industry.



Dennis McElroy is the Director of Curriculum and Assistant Director for Technology in the School of Education at Graceland University in Lamoni, Iowa. He has served as the Administrative Technology Consultant for the Iowa Department of Education and taught educational technology courses at Drake University, Iowa State University, and William Woods University. He taught Chemistry, Physics, Biology and Physical Science at the Secondary level.

Kenneth Hartman was a chemistry teacher of 30 years and a computer consultant for the Ames, Iowa Community Schools. He has earned nearly every chemistry teacher award presented at the national and state levels.

Timothy Gerard is a former attorney, currently serving as personnel manager for the Fremont, California Schools. He has provided legal assistance to JaKel Inc. since 1988.

System Requirements

Files are in **Acrobat Reader (.pdf)** format and operate on Macintosh and Windows computers. Customizable files are in **MS-Word and MS-Excel formats**. Windows systems require MS-Office 95 (Word, Excel) or later. Macintosh systems require Microsoft Office v. 4.02 (Word, Excel) or later.

Proven Effectiveness

In 1996 and 2001, the Alabama Dept., of Education made the **Total Science Safety System** (Elementary and Secondary) the first official documents available to schools in only CD-ROM format. Thousands of copies of the interactive CDs are now in use throughout the U.S. It is the most cost-effective, powerful science safety tool available. In addition to a general national version, custom versions are available for many states. Check your state on the JaKel webpage below.

<http://netins.net/showcase/jakel>

“The Total Science Safety CD has provided Nebraska science educators with a ‘one stop’ resource to assist them in creating a safe environment for the teaching of science. Working with Jakel to customize the CD to include our state rules and regulations along with national information helped our teachers see the entire safety picture.”

**Jim Woodland, Director of Science Education
Nebraska Dept. of Education.**

For information, contact
Jakel Inc.

585 Southfork Dr.
Waukee, Iowa 50263

*Specializing in Science
Education Safety Since 1986*

Voice 515-225-6317
FAX 515-222-9554

Website

<http://www.netins.net/showcase/jakel>

E-Mail

jakel@netins.net

“JaKel offers outstanding training and resources that directly meet the needs of science teachers. The Science Safety CD program is an invaluable tool in efforts to make science teaching safer and reduce risk to both students and teachers”

**Becky Werhman, Environmental Technical Services Manager
Metro Waste Authority of Iowa.**

“The Total Science Safety System-Hawaii Edition has been well-received by teachers and administrators because it provides comprehensive information and practical tools to address safety issues in science education. An added value was clearly the juxtaposition of Hawaii’s laws, regulations, and policies. JaKel has been responsive to our needs, a pleasure to work with, and expert in the field”

**Justin S.N. Mew, Science Supervisor
Hawaii Dept. of Education.**