



# Reflections

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## The Periodic Table Comes to Life in *IPS-8* !

Responding to requests from many teachers, as well as the requirements of a number of state standards, a new final chapter – The Classification of Elements: The Periodic Table – was added

	<b>Al</b> 27.0	<b>Si</b> 28.1	<b>P</b> 31.0
<b>Zn</b> 65.4	<b>Ga</b> 69.7	<b>Ge</b> 72.6	<b>As</b> 74.9
<b>Cd</b> 112.4	<b>In</b> 114.8	<b>Sn</b> 118.7	<b>Sb</b> 121.8

to the Eighth Edition of IPS. The storyline of IPS-8 comes to an interesting and historical conclusion as students construct their own periodic table based on understandings of atomic masses and characteristic properties of elements developed previously in the text. Following the general method used by Mendeléeu in the late 1800s, students use these properties to arrange 20 elements into the columns and rows that now constitute the periodic table. In doing so students develop an understanding of the predictive

power of the periodic table – a power that allowed Mendeléeu to predict the presence and properties of “missing” elements years before they were actually discovered. By the end of this chapter, students have been introduced to many of the alkali metals, alkaline earth metals, and halogens that reside in the first five rows of the periodic table.

The introduction of the periodic table is only one of the improvements made in the Eighth Edition of IPS. In particular, the first six chapters have undergone significant streamlining (by about eight percent) to allow students to progress farther into the course in the same amount

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## SCI Goes Electronic with *eReflections*

If you have provided us with your email address, this issue of *Reflections* may be arriving by email. Thank you for helping us cut mailing costs! This cost savings will allow us to provide additional services to the schools, teachers, and students who use our products. In particular, we hope to increase the support that we provide by giving you more frequent, timely ideas and suggestions related to *IPS*, *FM&E*, *Diagnostic Analysis*, and our other products. We hope that our new publication, *eReflections*, will increase your students’ achievement by enhancing your own effectiveness in the classroom. You can expect the first issue of *eReflections* next month.

Of course, we can’t send you *eReflections* if we don’t have your email address! But there is an easy way for you to remedy that situation! Simply send a short email to  
news@sci-ips.com .

Please type SUBSCRIBE in the subject line and then, in the body of the message, include your name, your school name and address, and your email address.

If at any time you decide that you no longer wish to receive *eReflections*, just click on the unsubscribe link that we provide at the end of each of our mailings...but we doubt that you’ll want to!

# IPS and FM&E Summer Workshops!

This summer, SCI will offer the following workshops:

Workshop Title	Dates	Location
IPS	July 9-21, 2006	Colorado School of Mines
FM&E	July 16-21, 2006	Colorado School of Mines
Constructing Tests for Science	July 9-14, 2006	Colorado School of Mines
IPS	July 24-Aug4, 2006	Wellesley, MA

Year after year, teachers who have attended the *IPS* and *FM&E* workshops write to tell us how much these workshops have benefited them and their students. To encourage participation in the *IPS* and *FM&E* workshops, SCI sets aside 5% of the purchase price of all *IPS* and *FM&E* copyrighted materials as a workshop credit for the purchasing school or school district. This credit is cumulative over three years and may be applied toward the tuition for the school's or district's teachers in any of our SCI summer workshops.

## IPS Workshop

The *IPS* National Summer Workshop at the Colorado School of Mines is hands-on, in sections of up to 22 participants. Peter Gendel and Graden Kirksey, co-authors of the Eighth Edition, will lead the workshop and will be joined by Uri Haber-Schaim and experienced *IPS* classroom teachers.

## FM&E Workshop

The *FM&E* National Summer Workshop is also hands-on, in sections of up to 22 participants. Uri Haber-Schaim and Robert Stair, two of the co-authors of *FM&E*, will lead the workshop.

## Constructing Tests for Science Workshop

This summer, we are again offering a one-week workshop on constructing tests for formative and summative purposes at Colorado School of Mines. The "Constructing Tests" workshop gives teachers practical experience at writing good assessment questions with real diagnostic value. This is an excellent workshop for users of our *Diagnostic Analysis* software or anyone interested in improving the quality of teacher-made tests.

The course operates in a collaborative environment with participants constructing and critiquing test questions in both multiple-choice and essay formats. Participants will also learn how to use *Diagnostic Analysis* software to analyze student responses to multiple-choice questions. Robert Stair and colleagues

will lead the workshop.

## Workshop Options

We have scheduled this summer's workshops to provide options and meet varied needs: five full days for *FM&E*, ten full days for *IPS* (Eighth Edition), and five full days for "Constructing Tests." The two-week *IPS* workshop will cover the entire Eighth Edition text, and the one-week *FM&E* workshop will cover that entire text. Several options and combinations of workshops are available to satisfy the needs of individual teachers.

Some of the several options are:

1. You can attend only the first week of the *IPS* workshop (covering the first five chapters). This option is for teachers who teach *IPS* for only one semester and teach life or earth science the rest of the year.
2. You can take the first week of the *IPS* workshop, and continue with the *FM&E* workshop in the second week. This option is ideal for those teachers who teach both *IPS* and *FM&E* during a single year.
3. You can take the "Constructing Tests" workshop followed by the *FM&E* workshop. This option is for teachers who either do not teach *IPS* or have already taken the *IPS* (Eighth Edition) workshop.
4. If you have already taken a previous *IPS* workshop, you might consider taking the second week of *IPS* (Chapters 6-10) to become familiar with the changes in the Eighth Edition or simply brush up on your skills.

## Making Travel Arrangements

All workshops begin on Monday. However, traveling participants should arrive Sunday afternoon for registration, assignments, and a reception dinner. Commuters may choose not to register on Sunday only if they have picked up materials and assignments the prior week. (Call 303-988-5041 to make arrangements for prior week pick-up.) All workshops will run until the end of the day on Friday, so travel arrangements should be made with this schedule in  
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## **Summer Workshops** from page 2

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### **Credit, Tuition, and Room & Board**

For any one-week session, the credit through Colorado School of Mines, tuition, and room & board costs are as follows:

Semester credit hours:	2.0
Tuition:	\$250.00
Single room & board:	\$309.00
Commuter lunch:	\$ 40.00

For the two-week *IPS* workshop, the credit, tuition, and room & board costs are:

Semester credit hours:	4.0
Tuition:	\$499.00
Single room & board:	\$622.00
Commuter lunch:	\$ 80.00

### **Workshop Registration**

To register online, go to the following web addresses:

For *IPS*: [https://hagrid.mines.edu/outreach/cont\\_](https://hagrid.mines.edu/outreach/cont_)

[ed/ips-reg\\_pgp.ht](https://hagrid.mines.edu/outreach/cont_ed/fme-reg_pgp.htm)

For *FM&E*: [https://hagrid.mines.edu/outreach/cont\\_ed/fme-reg\\_pgp.htm](https://hagrid.mines.edu/outreach/cont_ed/fme-reg_pgp.htm)

For Constructing Tests: [https://hagrid.mines.edu/outreach/cont\\_ed/course\\_pgp.shtml](https://hagrid.mines.edu/outreach/cont_ed/course_pgp.shtml)

To register by mail:

Fill out and mail in the application included in this issue of *Reflections* to:

Linda Baldwin  
Office of Continuing Education  
Colorado School of Mines  
Golden, CO 80401

For more information, please call 800-446-9488, x3995 or 303-273-3995 or contact Linda Baldwin by email at [lbaldwin@mines.edu](mailto:lbaldwin@mines.edu).

Applications are processed in the order in which they are received. Deposits received after the course is fully enrolled will be returned. Register now to reserve your place!

## **Visit our booth at the NSTA National Conference on Science Education in Anaheim, California – April 6-9, 2006**

**SCI will also present an Exhibitor Workshop at the Anaheim conference**

**Title: "Both Inquiry and Important Content in Middle School? IPS and FM&E!"**

**Location: Room 213A, Anaheim Convention Center**

**Date, and Time: Thursday, April 6, 9:30 - 11:00 AM**

**We hope to see you there!**

## **New England Regional Workshops**

SCI is once again presenting the New England Regional Program. This workshop is based on the Seventh and Eighth Editions of *Introductory Physical Science*. Taught by veteran *IPS* instructor Bill Atherton, the workshop will be held July 24 through August 4, 2006 in Wellesley, Massachusetts (exact location to be announced).

The program is designed primarily for new and potential *IPS* teachers in the eighth and ninth grades, but it will be very beneficial to any science teachers who wish to deepen their understanding of the foundations of physical science and its teaching methods. The workshop covers *IPS* experiments, reading sec-

tions, and samples of problems, as well as the new treatment of the Periodic Table that appears in the Eighth Edition of *IPS*. Teaching strategies and comprehensive assessment tools will be discussed.

Tuition for the 2-week workshop is \$320. Optional credit (4 semester hours from Colorado School of Mines) is available at an additional cost of \$150.

For more information on the New England Regional Program, visit our web site at [www.sci-ips.com](http://www.sci-ips.com) or call SCI toll-free at 888-501-0957 between 7:30 AM and 4:00 PM (Mountain Time Zone), Monday through Friday.

Application for the  
***Introductory Physical Science (IPS) Workshop***  
***Force, Motion, and Energy Workshop***  
***Constructing Tests for Science Courses Workshop***

Colorado School of Mines  
July 9–21, 2006

**Course selection - please check the appropriate workshop(s):**

- Introductory Physical Science Workshop – July 9–21, 2006*** (CT-0508-06M)  
 ***Introductory Physical Science Workshop (Chapters 1-5 only) – July 9–14, 2006*** (CT-0508-06M)  
 ***Introductory Physical Science Workshop (Chapters 6-10 only) – July 16–21, 2006*** (CT-0508-06M)  
*(To register for this workshop, you must have previously taken a Chapter 1-5 workshop.)*  
 ***Constructing Tests for Science Courses Workshop – July 9–14, 2006*** (CT-0359-06M)  
 ***Force, Motion, and Energy Workshop – July 16–21, 2006*** (CT-0509-06M)

NAME \_\_\_\_\_

GENDER (for housing arrangements only; please circle one) M F E-MAIL \_\_\_\_\_

SOCIAL SECURITY NUMBER \_\_\_\_\_ DATE OF BIRTH \_\_\_\_\_

*(Required when taking course for credit)*

HOME ADDRESS \_\_\_\_\_

HOME PHONE \_\_\_\_\_

SCHOOL NAME \_\_\_\_\_ PHONE \_\_\_\_\_

SCHOOL ADDRESS \_\_\_\_\_

SCHOOL DISTRICT NAME \_\_\_\_\_

What is your major field of science teaching? (check one)

Physical Science  General Science  Earth Science  Other (please specify) \_\_\_\_\_

What was your major in college? \_\_\_\_\_ Graduate concentration, if any \_\_\_\_\_

Have you attended a previous IPS or FM&E workshop or summer program? Yes No

Have you taught IPS or FM&E before? Yes No

If yes, for how many years? \_\_\_\_\_ At what grade level(s)? \_\_\_\_\_

**Tuition cost:** For the two-week IPS workshop, the tuition cost is \$499; for each one-week workshop, it is \$250.

**Credit:** Credit is awarded by Colorado School of Mines as graduate-level semester hours in Continuing Education. The two-week IPS workshop can be taken for 4 semester hours credit; each one-week workshop can be taken for 2 semester hours credit.

I do \_\_\_ do not \_\_\_ plan to take the workshop for credit. NOTE: The tuition is the same with or without credit, and all registrants are expected to complete and submit all graded assignments and tests.

**Your accommodation preference:**

Single occupancy room & board: One week (\$309) \_\_\_\_\_ Two weeks (\$622) \_\_\_\_\_

Commuter's lunch (Recommended if not residing on campus.) One week (\$40) \_\_\_\_\_ Two weeks (\$80) \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

A deposit check for \$35 payable to Colorado School of Mines must accompany this application. Please mail both to:  
Ms. Linda Baldwin, Office of Continuing Education, Colorado School of Mines, Golden, CO 80401.  
Phone: 800-446-9488, x3995 or 303-273-3995; email: lbaldwin@mines.edu

# SCI Product Price List for 2006

Description	Item Number	Price
<b>Introductory Physical Science (IPS)</b>		
Student Textbook, Eighth Edition	SCI-808-4405	\$45.00
Teacher's Guide and Resource Book, Eighth Edition	SCI-810-1440	\$65.00
Assessment Package, Eighth Edition	SCI-820-9287	\$40.00
Student Textbook, Seventh Edition	SCI-023-9821	\$45.00
Teacher's Guide and Resource Book, Seventh Edition	SCI-201-2559	\$65.00
Assessment Package, Seventh Edition	SCI-020-5092	\$40.00
<b>Force, Motion, and Energy (FM&amp;E)</b>		
Student Textbook	SCI-555-2333	\$33.00
Teacher's Guide and Resource Book	SCI-666-4444	\$50.00
Assessment Package	SCI-777-3393	\$35.00
<b>Media</b>		
<i>Diagnostic Analysis (DA)</i> Software (Mac version)	SCI-192-2216	\$65.00
<i>Diagnostic Analysis (DA)</i> Software (Windows version)	SCI-192-2612	\$65.00
<i>IPS &amp; FM&amp;E Analysis Files for DA</i> (with <i>DA</i> purchase)	SCI-192-2650	No Charge
<i>Mass of Atoms</i> Film (VHS)	SCI-VHS-1965	\$55.00
<i>Mass of Atoms</i> Film (DVD)	SCI-DVD-1965	\$55.00
<i>KaleidaGraph</i> Classroom (Mac/Windows)	SCI-032-1111	\$99.00
<i>KaleidaGraph</i> Student 5-Pack (Mac/Windows)	SCI-032-5555	\$100.00
<i>KaleidaGraph</i> Building (Mac/Windows)	SCI-032-9999	\$300.00
Videocassette (10 <i>IPS</i> Video "Loops" on a single VHS tape)	SCI-220-2420	\$40.00

## Periodic Table and IPS-8 from page 1

of time. Another new feature in *IPS-8* is the addition of formative assessment questions in both the text and the *Teacher's Guide and Resource Book*. These questions have been placed at the end of many text sections. They are highlighted in yellow for rapid identification and to distinguish them from the other end-of-section questions. Additional formative assessment questions for many of the reading sections appear in the *Teacher's Guide*. Both of these groups of questions allow teachers to quickly and frequently assess student progress toward understanding the ideas, skills, and vocabulary necessary for comprehension of the larger ideas in each chapter. The questions can be asked orally by the teacher or in quick review strategies. They provide teachers with an effective way to determine what the next instructional steps should be.

## Tips to Share?

Have a pedagogical, logistical, or money-saving tip that you would like to share with other *IPS* and *FM&E* teachers? Let us know! Tips will be published in future issues of *eReflections*.

To submit a tip, simply email it to us at:  
news@sci-ips.com

Be sure to include your name and the name of your school so that we can give appropriate credit to those whose tips are published.

## For Additional News and Info

For additional information, including previous issues of *Reflections*, be sure to check our website.

[www.sci-ips.com](http://www.sci-ips.com)