

IMPressions

SPRING 1997

A NEWSLETTER ABOUT THE INTERACTIVE MATHEMATICS PROGRAM™

New IMPlEmentation Center Will Boost Nationwide Support

A new national *IMP*™ center will open its doors next September, funded by the National Science Foundation (NSF). The Implementation Center, located in Sausalito, California, will offer expanded implementation, professional development, and networking support for the nationwide *IMP* effort.

Expanded Implementation Support

The new center will provide print materials—such as evaluation data, articles, reports, and information packets about *IMP*—to interested parents, teachers, schools, districts, state offices, systemic initiative groups, and other educational organizations, and will follow up on other inquiries as well.

The center also will maintain a national list of regional centers and will suggest whom interested educators might contract with to support effective implementation.

More Professional Development

The national *IMP* center will provide professional development opportunities for the directors of the *IMP* regional centers, as well as for teacher leaders providing inservice to classroom teachers around the country. As new regional centers are established, the directors of these centers will join the group.

The California *IMP* site has been offering a similar experience for *IMP* teacher leaders in the form of a three-day conference each year. The IMPlEmentation Center will expand on this idea and offer an annual conference for teacher leaders nationwide to help develop the skills needed to address the challenges associated with assuming a leadership role in educational reform.

The center's staff also will develop and distribute a model professional development program based on eight days of inservice for each of the four years of the *IMP* curriculum. Regional centers will be encouraged to modify and adapt the inservice program to meet the needs of their schools and communities.

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Colorado *IMP* Students Investigate by Bus

Thirty-four *IMP* Year 4 students at Colorado's Eaglecrest High School made important discoveries about their futures recently. The answers were just a bus ride away.

Instead of the day's normal school activities, the students boarded a bus bound for the University of Colorado campus at Boulder to see what freshman college calculus classes are like.

The idea for the trip came during discussion on how teachers could help *IMP* students reduce fear of college calculus and appreciate the high level of the mathematics they are studying in the *IMP* program. Martin Walter, the Chairman of Mathematics at the University of Colorado, was delighted by the idea and arranged the visitation schedule.

Judging from feedback by students and teachers, the trip was well worth it.

Senior Tamara Harrison wrote of the trip: "At first many of us felt we weren't going to understand a word of a traditional math class. We were all surprised when we were able to solve some of the presented problems, catch mistakes, and participate in discussions. None of us had realized how much we truly knew."

The students were pleased that classes were not as large as they expected. Throughout the day, students commented that the problems "weren't as hard as I

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P U B L I S H E D B Y

 **Key Curriculum Press**
Innovators in Mathematics Education

National IMP— A History

The *Interactive Mathematics Program™* (IMP™) is a collaboration of teachers, teacher-educators, and mathematicians who have been working together since 1989 to reform the way high school mathematics is taught. IMP developed its high school curriculum to transform into reality the vision of the National Council of Teachers of Mathematics (NCTM), as embodied in their *Curriculum and Evaluation Standards for School Mathematics* (1989).

This four-year core curriculum of problem-based mathematics replaces the traditional Algebra I–Geometry–Algebra II/Trigonometry–Precalculus sequence. It integrates traditional areas of mathematics

with new topics—such as probability, statistics, discrete mathematics, and matrix algebra—in exciting and innovative ways. IMP has also created a stimulating and demanding program of professional development to assist teachers in the transition to this new curriculum.

IMP began in 1989 with a grant from the California Postsecondary Education Commission (CPEC). Three years later, with the award of a major implementation grant from the National Science Foundation, IMP began developing an organizational structure to support dissemination of the program—a structure which includes IMP's four national directors, ten regional centers located around the country (each with its own directors), and an ever-growing cadre of teacher-leaders who serve as local coordinators throughout the country.

Additional funding has come from many other sources including The San Francisco Foundation, the U.S. Department of Education, the Noyce Foundation, the David and Lucile Packard Foundation, and individual

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Try the Circus Act!

(This is an adaptation of the "High Dive" problem in one of the five units of Year 4. IMP's authors dressed it in circus clothes to coordinate with Key Curriculum's theme at this year's NCTM Annual Meeting in Minneapolis. Take the plunge—and experience The Greatest Math on Earth!)

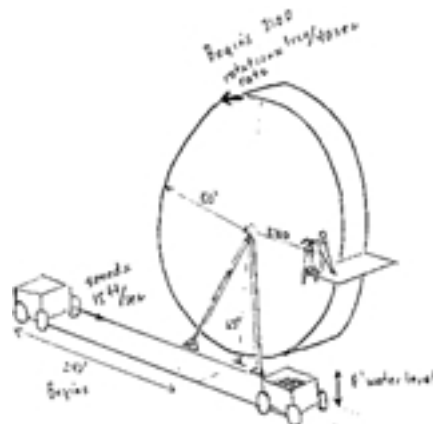
You may have seen or heard about the circus act in which someone dives off a high platform into a small tub of water.

Well, the IMP Circus Troupe has come up with a new wrinkle on this act.

They have attached the diver's platform to one of the seats on a Ferris wheel, so that it sticks out perpendicular to the plane of the Ferris wheel. The tub of water is on a moving cart that runs along a track next to the Ferris wheel and passes under the end of the platform.

As the Ferris wheel turns, the diver will be held by the ankles by an assistant. The assistant must let go at exactly the right moment, so that the diver will land in the moving tub of water.

If you were the diver, would you want to trust your assistant's on-the-spot judgment? A slight error and you could get a "splat!" instead of a "splash!"



Illustrated by IMP teacher Keith Loveland

Here are the details about the set-up for the act:

1. The Ferris wheel has a radius of 50 feet.
2. The center of the Ferris wheel is 65 feet above the ground.
3. The Ferris wheel turns counterclockwise at a constant rate, making a complete turn every 40 seconds.
4. When the cart starts moving, it is 240 feet to the left of the base of the Ferris wheel.
5. The cart moves to the right along the track at a constant speed of 15 feet per second.
6. The water level in the cart is 8 feet above the ground.
7. When the cart starts moving, the platform is at the 3 o'clock position.

Your task is to advise the assistant, and figure out exactly when the assistant should let go.

New IMpLeMentation . . .

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Increased Networking

As a networking center, the new national site will support the existing regional centers and help develop new regional centers.

It will collect and disseminate information and activities about the centers to each other, and will maintain and distribute a national calendar of inservice programs for teachers and administrators involved in the IMP program.

Key Curriculum Press will continue to sponsor an IMP User Group meeting at NCTM's annual conference, bringing together IMP teachers, administrators, teacher leaders, and directors, as well as educators interested in learning about IMP. The IMpLeMentation Center will work closely with Key Curriculum to plan and conduct these meetings.

The new national center will be one of five satellites of the Central Site in Ithaca, N.Y., which was funded by NSF to provide implementation support for five NSF-funded standards-based high school curriculum projects.

Besides IMP, these initiatives include Core-Plus Mathematics Project, MATH Connections (Connecticut), Applications/Reform in Secondary Education (ARISE), and Systemic Initiative in Montana Mathematics and Science (SIMMS). Each project has a satellite site similar to IMP's national center, and the goal of all sites is to work jointly and individually to improve secondary mathematics education through the implementation of comprehensive, standards-based curricula.

How to Get More Information About IMP

Have you just heard about *IMP*[™] and want more information? Are you interested in bringing *IMP* to your school? Are you currently teaching *IMP* and need support?

Janice Bussey is the person to call. She's the National Outreach Coordinator for the *Interactive Mathematics Program*[™]. She has a toll-free outreach line: (888) MATH-IMP.

Janice was one of the original *IMP* pilot teachers from Tracy High School in Tracy, California. She's been involved with *IMP* since the very beginning, contributing to the development of the curriculum and teaching every level. In addition, she's trained *IMP* teachers across the country and has supported *IMP* teachers in the classroom.

She has been a mathematics teacher for 18 years and a high school administrator for three. She comes to *IMP* with a wide range of experiences and expertise when it comes to mathematics reform, student performance, teacher change, and program implementation.

Call Janice if you have questions about *IMP*. She can send information and mail evaluation data and relevant articles. Janice will connect you to a large national network of *IMP* teachers and regional centers.



IMP Outreach Coordinator Janice Bussey.



Students from Eaglecrest High School pose for a trip picture.

IMP Students Investigate . . .

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thought,” and that “I will be able to do the math.” Some noted that their work in college might look different—and that they would miss the amount of discussion and class participation they have. But they appreciated the day and felt it lessened their anxieties.

One of the CU professors wanted to know how these students had acquired such in-depth conceptual understanding and made arrangements to visit Eaglecrest *IMP* classes!

Eaglecrest *IMP* teacher Michelle Novotny says, “Our students’ experience at the University of Colorado at Boulder was terrific. They came away feeling a little scared about college in general, yet they were confident that they could handle college mathematics. They did not feel totally lost in the calculus classes they observed. They recognized the language, and they were engaged in how to approach the problems they saw being presented.

“I think this was an important opportunity for the students because they experienced a college class without the pressure,” she adds. “They got to see something most seniors don’t: what their college classes will really be like. It was a confidence-builder. They feel prepared now.

“I think it would be great if all of our seniors had this opportunity. College is a big change and there is a great deal of stress. I feel this field trip was helpful in easing some of their concerns. I think it was also good for the professors at the university. It says, ‘Here is a high school who will send its students to see what we are doing.’ This may make them ask themselves if they are doing all they can—and if they will be ready for these students who ask why.”—*by Sheryl Chew, Rocky Mountain Region*

(Eaglecrest High School is one of eighteen high schools participating in IMP in the Rocky Mountain Region. For more information, contact Jean Klanica (303) 751-0895.)

R E G I O N A L I M P R E S S I O N S

ARIZONA

The first *IMP*[™] classes in Arizona were offered at South Mountain High School in Phoenix in the fall of 1992 by two teachers trained in California. Now, five years later, 16 schools have implemented *IMP*, with a total of 74 teachers and 8,440 students involved.

The Arizona site is based at the Maricopa Community College District and is directed by Nora G. Ramirez. High schools involved in the Phoenix Metropolitan area are South Mountain, Carl Hayden, North, Camelback, Central, Chandler, and Mesa. Other Arizona high schools involved are Mingus, Flagstaff Arts and Leadership Academy, Sedona-Red Rock, Rio Rico, Desert View, and Sunnyside.

Summer Inservice Dates:

IMP Years 2 and 3 June 9–12
IMP Year 1 July 21–25

We've planned two additional summer inservice days which focus on analyzing teaching and learning in mathematics classrooms as it relates to *IMP*, as well as one inservice day on writing, portfolios,

and assessing learning in an *IMP* classroom. Additional staff development days which focus on the *IMP* curriculum will be held in the fall and spring semesters.

For more information, contact Nora G. Ramirez at (602) 731-8062 or email ramirez@maricopa.edu.

CALIFORNIA

California field-tested the first three years of the curriculum between 1989 and 1992 in three San Francisco area high schools with diverse student populations. The fourth year of the curriculum was field-tested during 1993–1994.

IMP currently is being taught in 66 high schools throughout the state, which include approximately 25,000 students and 300 teachers.

Our *IMP* office has moved west, putting us that much closer to Hawaii! We're now located on a modest houseboat in Sausalito, where the changing tides bring a varying landscape that is always engaging and interesting. The occasional storms are exciting, but, for the most part, our physical setting is tranquil and beautiful.

continued in next column

Interactive Mathematics Program[™] National & Regional Contact List

National Office 6400 Hollis Street Suite 5 Emeryville, CA 94608	Janice Bussey National Outreach Coordinator (888) MATH-IMP (toll free) (888) 628-4467 (toll free) email: jbimp@telis.org
Arizona Regional Center c/o Phoenix USI 2411 West 14th St Tempe, AZ 85281-6941	Nora G. Ramirez Codirector (602) 731-8050 email: ramirez@maricopa.edu
California Regional Center PO Box 2891 Sausalito, CA 94966	Mary Jo Cittadino Coordinator (510) 528-0560 email: cittadin@math.sfsu.edu
Rocky Mountain Regional Center c/o Cherry Creek School District 1855 Joliet Street, Unit 3 Aurora, CO 80012	Jean Klanica Director (303) 751-0895 email: jklanica@csn.net
Hawaii Regional Center c/o Office of Instructional Services 189 Lunalilo Home Rd, 2nd Floor Honolulu, HI 96825	Kathleen Nishimura Codirector (808) 396-2567 email: knis@hgea.org kathleen_nishimura@notes.k12.hi.us

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New York Regional Center c/o Lehman College, Carman Hall B33 Bedford Park Blvd. Bronx, NY 10468	Suzanne Peda-Libfeld Codirector (718) 960-8078 email: suzli@aol.com
Northwest Regional Center c/o Portland State University P.O. Box 751 Portland, OR 97207	Sue Yabuki Director (503) 725-3076 email: yabukis@sbi.sbi2.pdx.edu
Pennsylvania Regional Center c/o La Salle University 1900 West Olney Ave Box 399 Philadelphia, PA 19141-1199	Joe Merlino Codirector (215) 951-1203 email: merlino@lasalle.edu

REGIONAL IMPRESSIONS

California continued

IMP Teachers as Leaders

With funding from the Noyce Foundation, we've successfully conducted Leader of Leaders retreats for the past three years. The purpose is to offer further opportunities to develop teachers as leaders, in addition to preparing inservice presenters.

Experienced *IMP*[™] classroom teachers conduct all the inservices. They also are well represented in professional organizations and are active representatives in statewide initiatives.

Margaret DeArmond of East Bakersfield High School currently serves as President of the statewide California Mathematics Council (CMC), an affiliate of the National Council of Teachers of Mathematics (NCTM). Others are active in Urban Systemic Initiatives in Los Angeles and Fresno, the CMC's High School Initiative, and the Math Renaissance K-12 (MR K-12) Initiative meetings on algebraic thinking.

We continue to actively encourage *IMP* teachers to present at local, state, and national conferences, in addition to site and district events. Some of the conferences at which *IMP* teachers have presented include CMC conferences in northern, southern, and central California, the NCTM Regional and National Conferences, California Math Projects, Expanding Your Horizons, and the California School Boards Association.

A Site Within a Site

San Francisco is in the third year of implementing its four-year NSF teacher enhancement grant—4D (Diversity, Dialogue, Dimension, and Design). Directors Theresa Hernandez-Heinz and Donna Gaarder spend most of their time supporting teachers in five high schools. There are 35 teachers and approximately 2,150 students in *IMP* in the San Francisco Unified School District.

Teachers Reach Out

Several California teacher leaders have begun outreach work with their local community colleges and four-year colleges on the traditional mathematics placement tests given by these institutions.

In East Bakersfield, teachers have initiated and maintained regular contact with the mathematics departments at both California State University at Bakersfield and Bakersfield Community College. Regional Coordinators Bruce Saathoff and Margaret DeArmond successfully planned the first of several articulation meetings between the mathematics faculty of the area's high schools and Bakersfield Community College. The district funded the teachers' full day release, and the community college served as host.

Karen Radcliff of Vista High School regularly interacts with the mathematics chairs of both the University of California at San Diego and California State University at San Marcos.

Summer Inservice Dates:

<i>IMP</i> Years 1 through 4	Northern California (Berkeley) June 16–20, 1997
<i>IMP</i> Years 1 through 4	Southern California (Oxnard) June 23–27, 1997
<i>IMP</i> Years 1 through 3	Central Coast (San Luis Obispo) Aug. 18–22

We can accommodate teachers outside of California at each of our three sites and cordially extend an invitation.

HAWAII

Hawaii is in its third year of *IMP* implementation in nine schools on four different islands—Oahu, Molokai, Kauai, and Hawaii. Seven of the nine schools have Years 1, 2, and 3. Its two newest sites are Hawaiian Immersion schools which provide all *IMP* instruction in the Hawaiian language.

The Polynesian Voyaging

Daniel Bennett and Robert Brown, *IMP* teachers at Molokai High and Intermediate School on the island of Molokai in Hawaii, developed *The Polynesian Voyaging*—a Polynesian migration version of *The Overland Trail*—during the summer of 1996. The mathematical concepts of *The Overland Trail* were set in the context of Polynesian migrations and Hawaiian history. Fifty-six percent of Molokai students are part-Hawaiian and had some difficulty relating to *The Overland Trail* unit. Dan and Robert felt their students could better identify with their own culture's historic migration.

Examples of changes made include replacing barrels of water with gourds of water; preparing for the journey with supplies for ocean voyaging (taro, bananas, pigs, chickens); traveling with outrigger canoes instead of oxen and wagons; and doing Fair Share on Watches (for land, weather changes), instead of Fair Share on Chores.

Three Hawaiian schools have piloted *The Polynesian Voyaging* this school year. Teachers report that their students (regardless of their ethnicity) are relating better to the Hawaiian version. This might be because all seventh graders take a required course in Hawaiian history or that students can relate unit content to past personal experiences.

IMP in Hawaiian

There are two Hawaiian Language Immersion Schools using *IMP*—one on Oahu and one on the island of Hawaii. The intent of the Hawaiian Immersion Program is to preserve the Hawaiian language, as well as prepare students for success in all English-speaking realms. All classes, except for one hour a day in English for grades 5 through 10, are taught in the Hawaiian language.

At the Hawaii site, two University of Hawaii at Hilo students, Kamalamalama Kaopuiki and Hanakahi Kalua are teaching *IMP* Years 1 and 2, using modules which have been translated into Hawaiian. At the Oahu school, Mahinalani Hussey, a certified secondary math teacher and fluent Hawaiian speaker, teaches Year 1 to a class of ninth graders and a class of tenth graders.

Summer inservice dates in Honolulu:

<i>IMP</i> Years 3 and 4	June 10–14, 1997
<i>IMP</i> Years 1 and 2	June 16–20, 1997

We can accommodate teachers outside of Hawaii. For more information, contact Kathleen Nishimura at (808) 396-2567 or email, kathleen_nishimura@notes.k12.hi.us.

REGIONAL IMPRESSIONS

ILLINOIS

The Illinois Regional Center currently supports nine Chicago public high schools, enabling the mathematics teachers to create student-centered classrooms using *IMP*[™]. Among these is Jean Baptista Du Sable High School, an African-American, Coalition of Essential Schools (CES) environment.

Principal Charles E. Mingo envisions a mathematics program that makes problem-solving and the ability to communicate mathematical ideas possible for all Du Sable students. The mathematics faculty is able to implement this vision every day by:

- presenting challenging mathematics that neither defeats the students nor undermines their self-confidence
- engaging students in investigations and activities that make every day in math class valuable.

MIDWEST

The Midwest Regional Training Center is continuing to grow and function, in spite of our challenging winter weather! Our expansion sites now include all seven Minneapolis public high schools, a suburban high school, an alternative high school, and an eighth grade class.

Minnesota Starts Statewide Testing

The State of Minnesota has begun the statewide testing of all eighth graders with a “minimum essentials” test, where all test items are embedded in real problem situations. The high school component, called “Profiles of Learning,” continues the application of mathematics in problem situations—with students expected to produce work similar to *IMP*’s Problems of the Week (POWs). The Minnesota version of the TIMSS report, being released in March, further documents the need for the *IMP* curriculum and similar K–12 programs in Minnesota.

Our Regional Center is part of the Minneapolis and St. Paul Merging to Achieve Standards Project (MASP)², a newly funded National Science Foundation Local Systemic Initiative. There will be cadres of 20 teachers, each group headed by an experienced *IMP* staff development specialist, implementing the *IMP* curriculum.

NEW ENGLAND

The New England Region started with three schools in 1994, at Arlington, Brookline, and Silver Lake Regional High Schools in Massachusetts.

Supported by a National Science Foundation Local Systemic Initiative grant for Teacher Enhancement, *IMP* will be implemented at schools in the following districts:

Massachusetts: Worcester, Cambridge, Carver, Boston, Hull, Lawrence, Milton, Needham, Wachusett Region, Lynn, Fall River, Wareham, and Beverly, as well as the Parker and City On The Hill charter schools and Brimmer and May, a CES private school

Connecticut: New Haven

Vermont: North Country Union, Champlain Valley Union, U32, West, and Lake Region Union

Tales Tell It Best

With our pilot schools now in their third year, some of the many stories we have to tell include these:

- A self-defined math-o-phobe has become an enthusiast who brags about his math accomplishment!
- A non-*IMP* student asked her homeroom teacher for a name for the meeting point of the 3 perpendicular-bisectors of a triangle. *IMP* classmates announced, “It’s the sprinkler!”
- A special needs student—identified as having a severe learning disability—scored 1160 on PSAT’s, to the amazement of her parents, who said they’d hoped for 750!
- The mother of a sophomore non-*IMP* student asked his counselor if he would be less well-prepared for college.
- *IMP* students from the Fenway Middle College High School—a CES school in Boston—gave a presentation to math teachers at another Boston school.
- The 1996 class valedictorian at a New Haven high school was an *IMP* student.

Summer Inservice Dates:

IMP Year 1 July 7–11, July 14–18, Aug. 18–22

We’re opening each of these three inservices to teachers around the country.

Inservice for Baker’s Choice—free through PALMS for all Massachusetts teachers—will be held in July for a week on Cape Cod and in August for a week in Amherst. Call our regional center for dates and cost.

For More Details About Inservices

Every *IMP* region has inservice offerings, which vary in scope and price from region to region. If your region hasn’t listed inservice information here, call the regional office. (See contact names and numbers on page 4).

NEW YORK

New York teachers, supervisors, students, and parents are on a mathematical journey. As we continue on the Overland Trail, through our first year implementing *IMP*, mathematics has taken on real meaning. Through the support of NYC Urban Systemic Initiative, the New Visions Annenberg Network, and the Bronx, BASIS and Alternative superintendencies, there are presently six high schools implementing *IMP*, reaching 450 students.

Building Support and Networking

Our team is working with the regional codirectors from Philadelphia, who provide professional development to New York staff members. Lehman College has integrated *IMP* into various grants by providing preservice teaching interns to assist in *IMP*

REGIONAL IMPRESSIONS

classes, and also offers a graduate level class for teachers focusing on implementing *IMP*. The Bronx High School Mathematics Instructional Specialist works weekly with *IMP* teachers.

This support, in conjunction with the support of the national directors and the *IMP* Outreach coordinator, has provided us with the resources to get off to a great beginning.

IMP classes are providing our students with content, knowledge, and skills for the future. Supervisors, teachers, and parents are commenting that students are thinking in class, understanding mathematical content, and improving their communication skills. The quality of our students' presentations, their portfolios, and POWs are evidence of the strides they are making.

Regents Exam Is Changing

Assessment in New York State is based on a regents exam. We have approval from the state to use *IMP* and administer an *IMP* regents exam this year. The New York Regents exam is changing, reflecting national and state standards. We believe the students involved in the *IMP* program will be very well prepared for the new form of assessment.

NORTHWEST

Northwest *IMP* is currently working with six schools in Oregon and Washington, serving 30 teachers and 900 students. We project increased participation next year in Olympia, Washington, and other surrounding cities, funded in part by grants from the Intel and Noyce foundations.

This partnership between industry and education is motivated by the need to turn out mathematically-proficient high school students—given the growing role of technology in industry. With *IMP*, we are finding that more students stay enrolled in mathematics and are more confident about their mathematical abilities.

Summer Inservice Dates:

IMP Years 1 through 3 Aug. 4–8 (Portland, Oregon)

For information contact Sue Yabuki, Northwest Regional Center, c/o Portland State University, P. O. Box 751, Portland, Oregon, 97207 (tel. 503-725-3076).

PHILADELPHIA

The Philadelphia *IMP* program made the news recently, when WQED Public Television videotaped it as part of an eight-part series on Mathematics called "Life by the Numbers."

IMP is included in the series' last episode, "Making a Difference," which features several innovative approaches to teaching mathematics.

Interviewed on *IMP* for the program were Joe Merlino, LaSalle University mathematics specialist; Alice Jordan, coordinator of mathematics education at Beaver College, and Ned Wolff, associate professor of mathematics and computer science at Beaver College and codirector of Philadelphia *IMP*.

Students Were TV Stars

The true stars of the show, according to Ned Wolff, were *IMP* students themselves, from Year 1 and Year 4 classes. Activities were chosen which convey the uniqueness and power of the program. *IMP* 1 students did selected activities from *The Pit and the Pendulum*, and *IMP* 4 students worked on the last day of the *High Dive* unit, when they "put it all together" to solve the unit problem. (See Page 2 for "Try the Circus Act," which is based on the High Dive unit.)

ROCKY MOUNTAIN

We're hard at work building participation and support for *IMP* in the Rocky Mountain Region. Consider joining us if you are a high school mathematics teacher who:

- is struggling to create a classroom reflective of the NCTM Standards
- is interested in alternative assessment ideas
- would like to change and would benefit from support
- would like to experience learning as your students do

Summer Inservice Dates:

<i>IMP</i> Year 1	June 16–27
<i>IMP</i> Years 2 through 4	June 23–27
Baker's Choice Workshop	July 28–Aug. 1

For more information, call Jean Klanica at (303) 751-0895 (For a delightful story from the Rocky Mountain Region, see "Colorado *IMP* Students Investigate by Bus" on page 1.)

National *IMP* . . .

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school districts.

The four national directors are Dan Fendel, Diane Resek, Lynne Alper, and Sherry Fraser. Dan Fendel earned his undergraduate degree in mathematics from Harvard University and his Ph.D. in mathematics from Yale University. Diane Resek earned her undergraduate degree in mathematics from Wellesley College and her Ph.D. in mathematical logic from the University of California at Berkeley. Fendel and Resek have taught and developed curricula for students of all ages—from kindergarten through graduate school—and have extensive experience in both preservice and inservice training of teachers.

Lynne Alper and Sherry Fraser also have degrees in mathematics and extensive classroom teaching experience. They bring to *IMP* their many years of practical experience in teaching secondary mathematics and in planning, organizing, and developing mathematics workshops for K–12 teachers. Fraser and Alper have a longtime focus on increasing the participation of minority and female students in secondary mathematics. This interest continues to be important to *IMP*'s goal of providing better access to higher-quality mathematics education for these previously underrepresented groups.

Key Comments

(Key Curriculum Press in Emeryville, California, is IMP's publisher—working closely with the program's four directors to shape and refine IMP™ materials before they reach the classroom.)

At Key Curriculum, our goal is to offer innovative materials and support for the teaching of secondary mathematics. The *Interactive Mathematics Program*™ is definitely such an offering—one we believe will have a lasting effect on the way mathematics is taught.

We value our close partnership with IMP's directors and teachers, and have welcomed the chance not only to build and publish IMP's texts and teaching materials, but also to lend support where we can to the professional development and networking aspects so critical to IMP's implementation.

It's great to see the excitement about IMP grow, nationwide!

Coming for the Fall

Slated for August release is the hardcover Year 2 student textbook and its accompanying teacher's guides—great materials that continue the excitement and momentum of the Year 1 classroom.

We'll also have our new IMP *Year 1: Calculator Guide for the TI-81, TI-82, and TI-83* available then, as well as *It's All Write*, a new supplemental which helps students write mathematics papers and reports. *It's All Write*—formerly a unit in Year 2—is suitable for all four years of IMP, as well as in traditional classrooms.

What's Cooking Internationally

L'Affaire Biscuit is the name cooked up for the French Canadian *Baker's Choice* unit now available with other Year 1 materials. *Impacts Mathématiques* is the French name for the IMP initiative there, and *The Overland Trail*—in both French and English Canadian versions—has been reworked as *The Klondike Trail (La Route Du Klondike)* to incorporate Canadian migration and settlement history.

IMP has been translated into French by and is available from Chenelière McGraw-Hill. For more information, or to order these materials, contact them at 25, rue Jean-Talon Est, Montreal (Québec) Canada H2R 1S9, or call them at (514) 273-8055, or email to chene@dicmcgrawhill.ca.



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