Launch Young K-6 Scientists

EXPLORING SCIENCE

The Joyous Adventure

Into The Future With Hands-on Explorations

EXPLORING SCIENCE
Volume 1

EXPLORING SCIENCE
Volume 2

EXPLORING SCIENCE
Volume 3

EXPLORING SCIENCE
Volume 4

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EXPLORING SCIENCE

EXPLORING SCIENCE is a K-6 hands-on, minds-on Project 2061/US Department of Education based complete science program that helps integrate the curriculum. EXPLORING SCIENCE is legally compliant.

FULL PROGRAM (Teacher Resource + all Student Materials above)
For each Student: Text + Binder + 2” Magnifying Lens = $15.00
Teacher’s Resource Book + 3.5” Magnifying Lens = $120.00
(absolute proration of teacher materials 1:25 students)
(includes over 300 pages of hands-on activities, background information, one copy of the Student Book, and blackline masters for student exploration documentation, teacher in-service materials, plus a classroom sized poster, "Being a Scientist").

INDIVIDUAL PROGRAM (1 each of all materials above)
Includes the right to copy student materials for your students.
Teacher’s Resource Book + 3.5” Magnifying Lens = $225
(includes over 300 pages of hands-on activities, background information, one copy of the Student Book, and blackline masters for student exploration documentation, teacher in-service materials, plus a classroom sized poster, "Being a Scientist").
Plus One Student Book + Binder + 2” Magnifying Lens

Money Back Guarantee:
We believe in our program! If you are not satisfied, return the materials within 30 days in a resalable condition. You will get a full refund!

Phone/FAX support by the teacher/authors.
18242 Peters Court
Fountain Valley, CA 92708
Phone/FAX (714)964-9191
Money Back Guarantee*

A Program written in the classroom by active teachers that exceeds the Project 2061 implementation.

Color of Vision

Sound of Excitement

Motion of Hands-On

Students Gain:
Success & Confidence
Process Skills
Understanding

Teachers Gain:
Integrated Curriculum
Success for ALL students
Mentor Guidance

Only EXPLORING SCIENCE (K-6) Offers:

1. Thematically linked chapter material
2. Integrated Curriculum
3. Sheltered English Training
4. Greater than 60% hands-on
5. Cooperative Learning Strategies
6. Reading Language Arts Teacher Ready
7. Materials affordable for all students
8. Consumables less than $2 per student per year
*9. 30 day MONEY BACK on any returned sellable materials.

Macro Press
The Active Teacher Company

Bringing Science To Life®
"Why?" is a wonderful question. Every child, and every scientist, spends most of his/her day asking why. The question is pertinent to instructional material. Why was it written in the manner that it was? The presentation of known facts is vital to the process of developing knowledge and understanding. However, in an era of rapid scientific discovery, teaching science must be more than mere presenting of "facts", even when learned hands-on. The authors feel that the better way is to concentrate on the scientific process, and to teach the students to question, like Einstein, Darwin, and Leonardo da Vinci. Logical, organized problem solving, especially in groups and teams, is valuable to every person, not just those entering scientific fields. This program has as its first goal the teaching of the student to be a scientific problem solver.

Exploring Science is designed to raise a generation of functional, problem solving, and communicative adults. Grade after grade, each chapter helps the child grow in the ability to gain, organize, process, and communicate what she/he has learned, not only in science, but also in all other subjects. The first chapter teaches the students, beginning in kindergarten, how to be a scientist. Following are theme based chapters using the accepted themes of Energy, Stability, Patterns of Change, Systems and Interactions, Scale and Structure, and Evolution. The final chapter is devoted to placing the student into an awareness that the scientist does not work outside of his/her society and environment, the History/Social Science tie.

Through hands-on explorations, the students are shown how scientists solve problems, and why they document as they do, by doing actual work and solving interesting problems. The Student Text is never the primary teaching tool. It is used to integrate the learning into the total curriculum by the use of raps, chants, poetry, and questioning. Even the glossary is hands-on in this program. Using National Academic Excellence Award-winning techniques developed in working with non-English speaking students, the authors have created the concept of an Interactive Glossary. Subject areas integrated throughout the program.

Language acquisition
From reading readiness to reading
From math readiness to math
Visual and Performing Arts
History/Social Science
Current Issues/Technology

The skills taught are enhanced as the students go up in the grades commensurate with their maturity. At all levels, the students are expected to explain what they have learned through cooperative learning techniques of Pair-Share, Teams, and Conferencing. Heavily used throughout is the graphic organizer. The students are expected to logically organize all of their material. They keep a Scientist’s Notebook every year. This notebook is used exactly like Leonardo da Vinci used his notebook, as a reference of what has been seen, tried, and learned. The students are taught how to relate seemingly unrelated data to create new knowledge.

Physical, earth, and life explorations, thematically linked, are placed in the same chapter to insure that the student does not create artificial separations in his/her mind. The purpose is to generalize the knowledge. Every day all humans are faced with problems that seem unfamiliar. Thematic understanding that helps link previous studies, provides "can do" solutions that work. The ability to unify the unfamiliar with the known provides confidence in students.
Science Understanding

*Facts are not enough. We need to be able to apply them!*

Understanding is easier when information is developed actively with hands-on explorations AND is related to other known information. Project 2061, American Association for the Advancement of Science, produced "Science for All Americans", a report defining the rationale for teaching thematically. "Science for All Americans" asked that Physical, Earth, and Life Science be taught at the same time linked by theme to provide true understanding. EXPLORING SCIENCE teaches thematically, but is also includes two additional themes. All grade levels, K-6, start with a theme of Being a Scientist to teach process, problem solving, documentation, and communication. They end with a chapter tied to History/Social Science to show how scientists work within a context.

### THEMATICALLY LINKED

<table>
<thead>
<tr>
<th>Physical</th>
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<tr>
<td>Life</td>
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Cooperative/Collaborative Learning is used throughout the program.
“Science is the limitless voyage of joyous exploration.”
Walt Whitman

This is a program where hands-on/minds-on explorations are the heart. The student text supports, adds, and clarifies content.
**How a scientist thinks.**

### Scientific Thinking Processes:

1. **Observe** things in a precise way.
2. **Communicate** their ideas with others. This can be understood and recorded on them.
3. **Compare** known against what is not known.
4. **Categorize** their findings into groups or classes.
5. **Relate** their findings into cause and effect relationships.
6. **Infer** what can happen based on their previous knowledge and in their knowledge groups.
7. **Apply** this knowledge to new purposes.

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**Being a Scientist**

- **Scientists:**
  1. Follow lab and safety rules
  2. Are curious
  3. Investigate
  4. Collect & record precise data
  5. Cooperate
  6. Communicate
  7. Seek answers
  8. Ask new questions
  9. Persist

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How a scientist organizes.
The Path To Invention

OBSERVATION:
Study the phenomena in detail.

DESIGN:
Create possible means of duplicating or improving on observations.

ANALYSIS:
What forces and structures are acting in phenomena?

INTEGRATE:
Take the components of the design and make them work for you!

Grade 4 Sample

Da Vinci Drawings Courtesy of:
Elmer Belt Library of Vincenza
University of California, Los Angeles
Making Electric Circuits

How to do and document.

Parallax Play

Uprooting The Balance

Explanation Report of H

Change

Till

Frame

Empliment
Integrated curriculum is fun.
The Desert That We Know

These are the grasses,
The desert grasses,
That grow in the desert
That we know.

This is the grasshopper,
The lubber grasshopper,
Who nibbles in the grasses,
The desert grasses,
That grow in the desert
That we know.

This is the lizard,
The fringe-toed lizard,
Who eats the grasshopper,
The lubber grasshopper,
Who nibbles the grasses,
The desert grasses,
That grow in the desert
That we know.

This is the rattlesnake,
The sidewinder rattlesnake,
Who swallows the lizard,
The fringe-toed lizard,
Who eats the grasshopper,
The lubber grasshopper,
Who nibbles the grasses,
The desert grasses,
That grow in the desert
That we know.

This is the roadrunner,
The fast moving roadrunner,
Who feeds on the rattlesnake,
The sidewinder rattlesnake,
Who swallows the lizard,
The fringe-toed lizard,
Who eats the grasshopper,
The lubber grasshopper,
Who nibbles the grasses,
The desert grasses,
That grow in the desert
That we know.

This is the vulture,
The turkey vulture,
Who is the scavenger
Of the desert.
It feeds on the animals,
The dead, dead animals,
That lived in the desert
That we know.
Aiding integration planning.
Aiding integration planning.
Nine week long K-6 sample lessons available for $5.00 refundable on any book purchase.

**ORDER**

Name ____________________________________________
School District _________________________________
Address _________________________________________
City __________________ State ______ Zip __________
Phone __________________________

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<td>Poster</td>
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**Note:**

*For curriculum materials description, see the inside front cover.*

*Full Program - Teacher manual $120 (prorated), student materials $15 each.*

*Individual Program - complete basic program $225 (you copy student pages for your students, magnifying lenses optional.)*

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**OPTIONAL ITEMS**

| Lens       | Student    | $4.00 |          |       |
| Lens       | Teacher    | $7.50 |          |       |
| Binder     | Student (3 ring) | $2.50 |          |       |

**Purchase**

**Tax @ 7.75% (CA) **

**Total**

**Bringing Science To Life®**

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