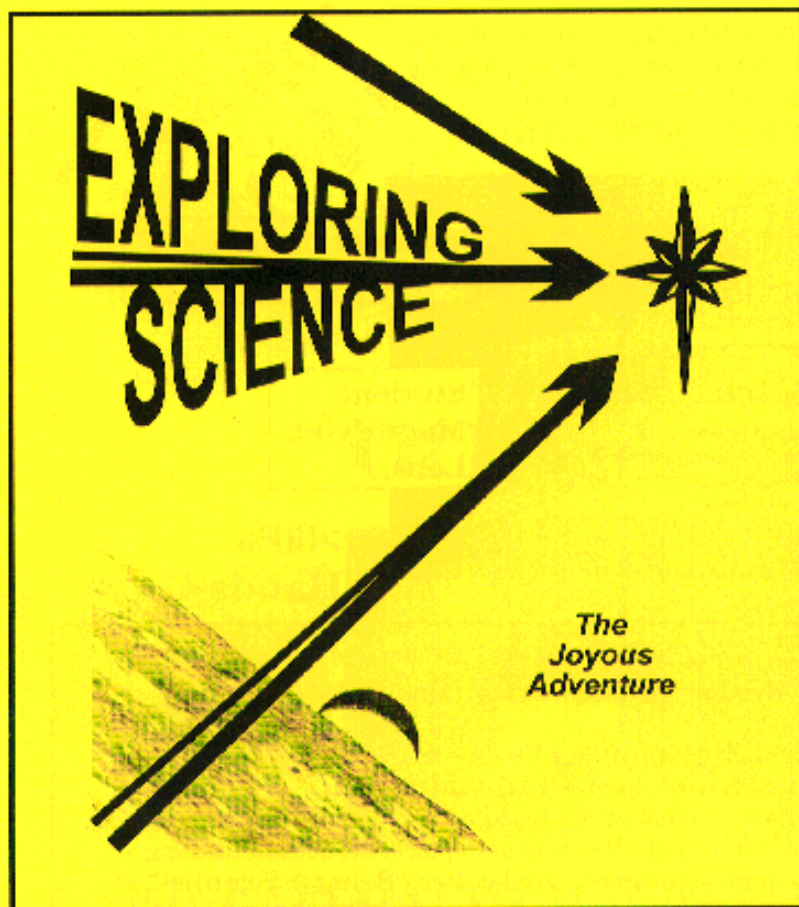
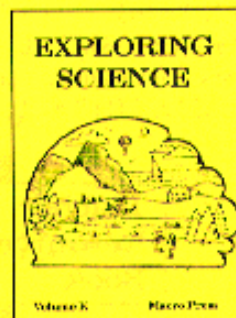


Launch Young K-6 Scientists

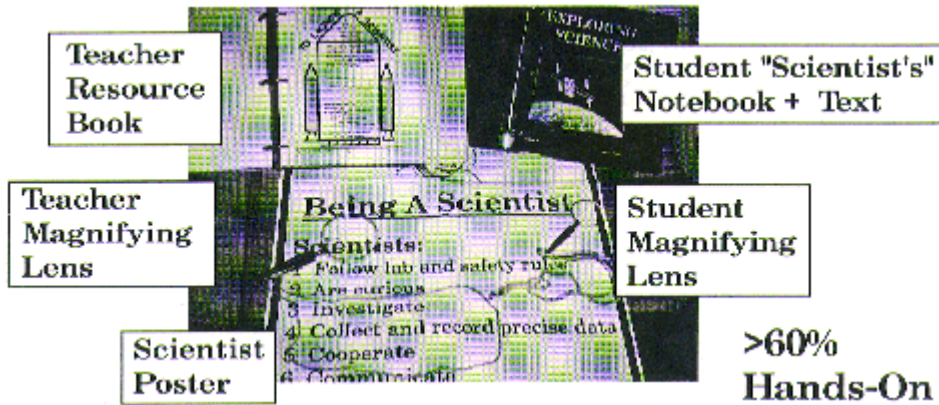
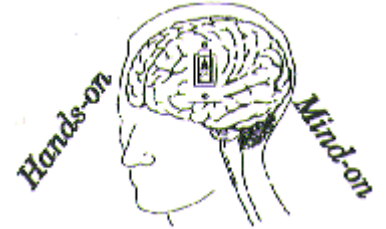


Into The Future
With Hands-on Explorations



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



Phone/Fax support by the teacher/authors.

Money Back Guarantee:

18242 Peters Court
Fountain Valley, CA 92708
Phone/FAX (714)964-9191

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!

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.

Districts Gain:
Budget Protection
Cooperative Learning
Teacher Training



Macro Press
The Active Teacher
Company

Bringing
Science
To
Life®

The EXPLORING SCIENCE Program Organization

"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

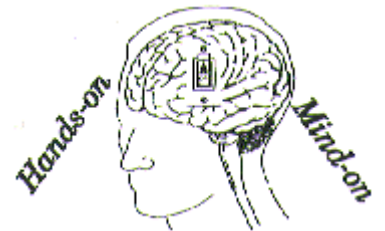
From reading readiness to reading

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.

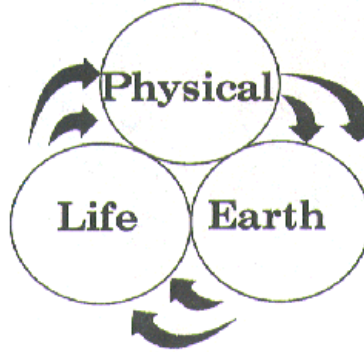
Science Understanding

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

Energy
Stability
Evolution



Scale and Structure
Systems and Interactions
Patterns of Change

All Grades Themes. Being A Scientist AND History Social Science			
Grade K:	Scale and Structure Patterns of Change	Grade 4:	Scale and Structure Patterns of Change
Grade 1:	Energy Systems and Interactions Evolution	Grade 5:	Energy Scale and Structure Stability
Grade 2:	Systems and Interactions Scale and Structure Evolution	Grade 6:	Patterns of Change Evolution
Grade 3:	Energy Systems and Interaction Stability		Energy Systems and Interactions

Cooperative/Collaborative Learning is used throughout the program.

STUDENT APPLICATION

"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.



4th - Testing out the mystery materials



5th - Testing Parallax



3rd - Discovering the hardness of an egg shell



1st - Using a level



2nd - Observing chemical Change



6th - Preparing a volcano simulation



K - Discovering shadows



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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Name: _____ Date: _____

Scientist: _____

Being A Scientist

Scientists:

- 1 Follow lab and safety rules

Scientist is: I am:

- 2 Are curious

- 3 Investigate

- 4 Collect and record precise data

- 5 Cooperate

- 6 Communicate

- 7 Seek Answers

- 8 Ask new questions

- 9 Persist

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How a scientist thinks.



Dr. Elena Gonzalez
*"I am a Hispanic woman whose success
 has won many prizes and a Nobel Prize that
 I am proud of. What is your success?"*

You are too many questions! How many people had
 said that to the little girl with the brown eyes and up-
 turned face.

Elena was born in Mexico in 1943. She went to work
 when she was very young. She helped her parents grow fruit
 and vegetables for the owners of the big houses. The whole
 family had to work to make enough money to buy food and
 clothes. It was hard work for a little girl, and her hair had
 to be washed every day.

It was not happy, but not because of the hard work or for asking back. Elena Gonzalez
 wanted to go to school, and the work kept her from her dreams.

When Elena was six, her family moved to the United States. "No America, you're like to
 stay," her father said. "I am going to school! I am going to school!" Elena said bravely.
 She could hardly wait. Elena knew that she would find the answer to her questions at school.
 When the Gonzalez family got to Texas, they worked for the owner of a huge stock. Elena
 was ready to enter school, but she could not. The school bus did not drive out that far.

To make her her disappointment, Elena's father told her one old property book he
 had. She asked so many questions about the maps and pictures that her family decided to
 send her to the city where she could live with a cousin and go to school.

Elena got to her cousin's home, it had with excitement, it did not stay long. She asked
 so many questions that her cousin sent her back home. Back home, Elena continued hoping.

When Elena was nine, her father found a job and a house in the city. Elena's dream came
 true. She started school. She found it hard. She did not speak English very well. She asked all
 her questions in Spanish. Her teacher also spoke Spanish, but she was busy. "Elena, she said,
 "You ask me many questions!" It was a chance from school and liked it in a program on
 the radio, called "The Quiz Quiz." These children know the answers to many questions
 and Elena learned from all.

In grade high school, Elena found a class she loved, a good time, and teachers who
 enjoyed her questioning mind. The class she loved was algebra. The teacher was Margaret.
 They read books and went on to high school together. Elena was one of the girls' best friend.
 Soon, she was elected to student council, and she joined the science club.

Elena Gonzalez still worked picking fruit with her family in the spring and summer.
 Margaret was planning to go to college and her parents were able to pay for her education.
 Elena wanted to go to college too, but her parents had no money to send her. They wanted
 their careers daughter to follow her dreams, but they were afraid of loss. Finally they agreed.

Elena studied science in college. She thought she would be a teacher. A professor called
 her to his desk. "I need a year questioning mind. Why do you become a research scient-
 ist?" he asked. "Research scientists ask questions about the world we live in and they use
 their skills to find the answers."

Elena studied and later things. He became a high school and her. She is now DR.
 ELENA GONZALEZ and she works in her own laboratory. She is also a teacher. Do you
 think she ever gave up with the student who asked many questions? Don't!

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Scientific Thinking Processes:

1. **OBSERVE** things in a precise way.
2. **COMMUNICATE** their ideas so others can understand and expand on them.
3. **COMPARE** what is 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 as their knowledge grows.
7. **APPLY** this knowledge to new purposes.

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Name: _____ Date: _____	
I Have New Questions.	
How I Found Out.	
What I Found Out.	
What I Want To Know.	
What I Know about ...	

Adapted from: Louisa Thill, "Highlighting My Strengths" ©Copyright 1994, Macro Press

Science Report

Date: _____ Name/s: _____

I have a question!

Hypothesis

Procedure

Collect / Organize Data

Analyze / Conclude

Share Results

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How a scientist organizes.

Venn Diagram - 3

Name: _____ Date: _____

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Glossary _____

Term: _____

Illustration:

Definition:

Glossary _____

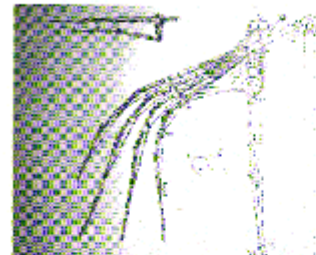
Term: _____

Illustration:

Definition:

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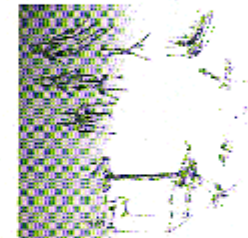
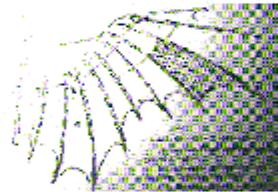
The Path To Invention



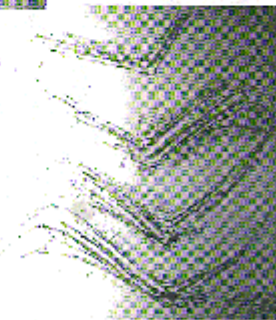
OBSERVATION:
Study the phenomena in detail.

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

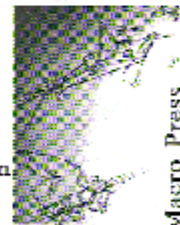
Grade 4 Sample



ANALYSIS:
What forces and structures are acting in phenomena?



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

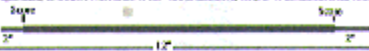


Da Vinci Drawings Courtesy of:
Elmer Belt Library of Vinciana
University of California, Los Angeles

Making Electric Circuits

Preparing The Wire

Use two 10 cm pieces of #16 copper wire. It is best when you cut the wire to cut both along the straight section and at a slight angle. If the wire is twisted, strip 2" of insulation from each end.



Strip the insulation with a utility knife held by the handle. Strip the insulation by cutting in a slightly flat. Rotate the wire, or use the flathead end of the wire, until the insulation is cut through to the bare wire with a sharp point. When the wire is cut all the way around, the 2" wires will strip easily.

Batteries Holders

Water Absorbent



Red Wire
(+ wire)

Find a set of loose fasteners in a metal box or drawer. Use a rubber wheel to hold it.



Put ends of fasteners in it. Other wires hold them away from the battery.

Bulb Holders

paper cup



Top View



Hole cut near base. It will contain base of the bulb.

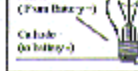


Use metal plates of wire at base. They can not touch.

1" piece of insulating tape



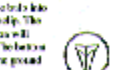
1" piece of insulating tape



Zip tie
(on battery)



Zip tie
(on battery)



Zip tie
(on battery)



Zip tie
(on battery)

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grade 6

MAKING AND USING A BAROMETER

Inventory picture



MAKE IT!

- Stretch the balloon over the jar and secure it tightly with the rubber band. Cut edge of hole of the balloon slightly to make it more flexible.
- Trim the end of the straw. Use a paper clip. Attach the straw to the top of the balloon with a small piece of tape.
- Secure the glass to the base with a loop of string tape.
- Fill the card lengthwise, opening it slightly to make it loose, and fix to the base on the outside edge with the string tape of string.

USE IT!

- Record your barometer readings at home over the next few days, morning and evening.
- Check weather reports daily.
- After recording five weeks readings and check against the reports for two weeks, record a year's worth of readings and check against reports. How do the barometer readings compare with the weather?
- Keep tracking the weather for one month.
- After five weeks, what conditions do you know for changing your mind?

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grade 6

How to do and document.

grade 5

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

Parallax Play

Circle lens

- Place a circle piece of tape in the middle of the square hole of 'A'.
- Stick a holepunch in the center of the tape.
- Place your paper over the tape of your desk.
- Circle lens.
- Place your circle on the word circle at the bottom of the page.
- Close your left eye.
- Look at the word circle at the top of the page with your right eye.
- Write the number you see directly behind the magnifying glass to appear to the right.
- Close your right eye and look with your left.
- Repeat steps 7 and 8 for your left eye.
- Repeat steps 7 through 11 for lens B through D.

Position A: Left eye viewing right eye viewing

Position B: Left eye viewing right eye viewing

Position C: Left eye viewing right eye viewing

Position D: Left eye viewing right eye viewing

How does the number you see through the magnifying glass change as you move the magnifying glass to the center of every position? How many words are visible in the bottom hole of the circle?

If we did not observe the lens and saw just one lens a bigger number of words would be visible, which one is correct?

Put your circle here

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grade 3

Supplement Report #11

Upsetting The Balance

Cause

State factors. Be concise. Background information.

Effect

Think possible outcomes and effects.

Plan

Develop several alternative interventions.

Implementation

What have or have does it begin?

Team Members: _____

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Curriculum Connections

Curriculum Connections

<p>History / Social Sciences</p> <p>CREATIVITY - Pick out local birds and insects to bring up historical issues.</p> <p>Reading / Language Arts</p> <p>DEMO - Use Cuckoo's Nest Counters to learn about how birds find food for their chicks & how they make their nests.</p> <p>WRITE - draw a new bird from an old bird's nest on a large sheet of paper.</p> <p>DRAMA - an original insect and/or bird play of the classroom.</p> <p>RESEARCH - Study. Find out the life cycle of birds.</p> <p>IMAGINE - ways of controlling insects.</p> <p>Current Issues</p>	<p>Visual/Performing Arts</p> <p>SING - "The Ants Go Marching" ACT - Create an original bug. PERFORM - Act out from the old children's book, <i>The Day After Tomorrow</i>.</p> <p>Math</p> <p>GRAPH - Draw all birds from one year's nesting. GRAPH - Record the number of birds of each species. GRAPH - Draw a line graph of the number of birds of each species over time. GRAPH - Draw a bar graph of the number of birds of each species over time.</p> <p>SCIENCE - Draw all birds from one year's nesting. SCIENCE - Record the number of birds of each species. SCIENCE - Draw a line graph of the number of birds of each species over time. SCIENCE - Draw a bar graph of the number of birds of each species over time.</p> <p>Current Issues</p> <p>Technology</p>
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SCIENTISTS ARE CURIOUS

GOIN' ON A BUG HUNT!

Lookin' for: Two student ECOS

- Going on a bug hunt!
- Going to spot a lot of them
- Big bugs, little bugs
- Maybe just a few slugs
- Going on a bug hunt!
- Looking under rocks and leaves
- Looking up in the trees
- Searching over the school ground
- Charting all the bugs I found
- Drawing pictures in my book
- To remember just the way they look
- Keeping detailed info—
- So I'll stay in the know
- Going on a bug hunt
- Quietly, set, off I go . . .




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grade 3




grade 3




Integrated curriculum is fun.




grade 3















CLASS INSECTA RAP

Is it kind or bug?
 I wish I knew,
 I'll answer you with the
 "bug-a-doo."

Does it have three body parts?
 Six jointed legs I found!
 Two pairs of wings,
 Eyes, a mouth and compound.

Two antennae,
 Light as a feather,
 It's an insect, an insect
 When you put it all together!


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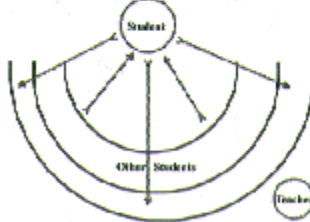
grade 3

SCIENTISTS' CONFERENCE

The scientist has come! You are scientist eager to present your findings at the next SCIENTISTS' CONFERENCE. Scientists are gathered to not only listen to you present your ideas and ideas. You will be sharing your SCIENTISTS' NOTEBOOK along with charts, diagrams, and models.

After your presentation, you will invite your fellow scientists to ask questions, ask questions, and provide helpful suggestions. All scientists use scientific language. All scientists behave with respect and courtesy.



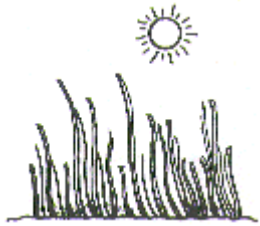


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After your presentation, you will invite your fellow scientists to ask questions, ask questions, and provide helpful suggestions. All scientists use scientific language. All scientists behave with respect and courtesy.

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The Desert That We Know



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

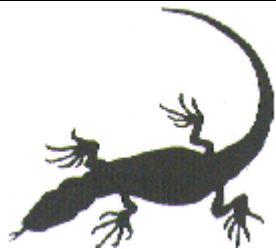


This is the rattlesnake,
The sidewinder rattlesnake,
Who swallows the lizard,
The fringe-toed lizard,
Who eats the grasshopper,
The lubber grasshopper,
Who nibbles the grasses,
The desert grasses,
That grow in the desert
That we know.

This is the grasshopper,
The lubber grasshopper,
Who nibbles in 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 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.

Grade 1 Sample Teacher Planner with Curriculum Integration references.

Explanation	Unit Assessment	Student Skills	Student Skills	Student Skills	Unit / School	Curriculum Domains
<p>Counting the Objects</p> <p>1. Group is needed to count to make comparisons to work.</p> <p>2. There is a set number of objects. Students should count the objects first and last.</p> <p>3. When an object is added, it is added to the end.</p> <p>4. Every object has its own name. It is not the same as the other objects.</p> <p>5. The number words are used to count the objects. Students should be able to count to 10.</p> <p>6. As the number words are used, they should be written on the line.</p> <p>7. Students should be able to understand the number words.</p>	1 week	Pg. 2-3	Pg. 9-10		First Math	1.M1.1, 1.M1.2, 1.M1.3
<p>1. Lili and Lili</p>	1 week	Pg. 20	Pg. 11	Exposition Report #1	Books	1.M1.1, 1.M1.2, 1.M1.3
<p>2. Lili and Lili</p>	1 week	Pg. 2-18	Pg. 12	Exposition Report #2	Classics	1.M1.1, 1.M1.2, 1.M1.3, 1.M1.4, 1.M1.5
<p>3. All You Hush Hush</p>	1 week	Pg. 5-20	Pg. 12	Exposition Report #3	Family	1.M1.1, 1.M1.2, 1.M1.3, 1.M1.4, 1.M1.5
<p>4. All You Hush Hush</p>	1 week	Pg. 5-20	Pg. 14	Exposition Report #4	Family	1.M1.1, 1.M1.2, 1.M1.3, 1.M1.4, 1.M1.5
<p>5. All You Hush Hush</p>	1 week	Pg. 5-20	Pg. 16	Exposition Report #5	Family	1.M1.1, 1.M1.2, 1.M1.3, 1.M1.4, 1.M1.5
<p>6. All You Hush Hush</p>	1 week	Pg. 5-20	Pg. 18-19	Exposition Report #6	Family	1.M1.1, 1.M1.2, 1.M1.3, 1.M1.4, 1.M1.5
<p>Counting/Reasoning/Comparing the numbers</p>	1 week	Pg. 2-10				1.M1.1, 1.M1.2, 1.M1.3

Further Exploration

Teach the children the following rhyme game. **Did You Ever See A Lemon?** Have the children make a large circle. Place a container with several lemons in the center of the circle. Choose a child to be the leader who stands in the center of the circle. The leader chooses a new leader and the game continues. Have the children make up additional verses to go with all the lemons you have. Add some fun and add examples of the lemons such as a lemon lemon or a lemon lemon. These may be represented by pictures or simply drawn on. Have the children write according to the directions below on trying the following song to the tune of "Did You Ever See A Lemon?"

Did you ever see a lemon, a lemon, a lemon?
Did you ever see a lemon to make a big rack?

Oh, yes, I can do it, it's easy to do it.
Oh, I can see a lemon to make a big rack.

Did you ever see a lemon, a lemon, a lemon?
Did you ever see a lemon to put on a shelf?

Oh, yes, I can do it, it's easy to do it.
Oh, I can see a lemon to put on a shelf.

Did you ever see a lemon, a lemon, a lemon?
Did you ever see a lemon to put up a lid?

Oh, yes, I can do it, it's easy to do it.
Oh, I can see a lemon to put up a lid.

All of them standing in a large circle. Leader comes to center, chooses a container, red or white from the container, and pretenses to put it on a shelf.

The children in the circle pick up imaginary lemons and pretense to see the lemon along with the leader.

Leader chooses a child to be the lemon, a class member or other from the container, and the leader pretenses to put it on a shelf.

The children in the circle pick up imaginary class members and pretend to see the lemon along with the leader.

Leader chooses a child to be the lemon, a class member or other from the container, and the leader pretenses to put it on a shelf.

The children in the circle pick up an imaginary, red or white, and pretend to see the lemon along with the leader.

Music



grade 1

grade 1

Aiding integration planning.

grade 2

grade 2

5. PICTOGRAPH
Make a Dice Pictograph. Title: "How Many Petals?" Divide a sheet into six rows. Students may draw a different number of circles with five petals each. They have to draw a line with many petals and row of dots. You can use this to make a counting by 5 and to practice writing by 5. For a row with five petals, have the students write "Five, ten, fifteen, twenty, twenty-five" and then think of the next picture for the row for the five petals, "30, 35, 40".

HOW MANY PETALS? # of	
	5 x 5 = 25
	4 x 5 = 20
	3 x 5 = 15

7. THE MANY VEGETABLES
Bring in several kinds of fruits and vegetables which have seeds that are fairly easy to get out. Draw and label vegetables such as corn, peas, oranges, apples, and peppers, potatoes, pumpkins, and tomatoes on grid squares of seeds. Write the names of the samples you have brought in on the board. Have the students to have many accuracy. It is an activity for the students and it is a good activity for the students. Write the names of the samples you have brought in on the board. Have the students to have many accuracy. It is an activity for the students and it is a good activity for the students. Write the names of the samples you have brought in on the board. Have the students to have many accuracy. It is an activity for the students and it is a good activity for the students.



The next two observations are made together to allow for the present class to be used. These activities are used to integrate and apply of the concepts from this unit. The presentation can be done in a formal setting after track part of.

1. Read the **Science** by Julie W. Using the concepts in this unit, students will be able to identify the living and non-living parts found in the story. Have the students make two circles and find out of the living organisms. Then focus on the producers and prey animals. Production is a study for both and least other animals prey on the animals who are caught and eaten. Identify the roles of the other animals, the flowers, the deer etc. Identify the beginning, the middle, and the end of the story. Have each student write or picture identify that describe part of the story and use a story script describing the production with the use of biology. These presentations can be done in a narrative form, a story-telling form, or a story form which the students should be able to present with their own words and terms. Allow enough time for preparation and practice before the presentations.

Another choice for the writing process might be poetry writing from a frame.

2. Using the following lines, students may substitute a new forest animal and their own sight, sound, taste, etc.

Fast the _____
with and for _____
Come with the living forest without _____

Fast the _____
with and for _____
Come with the living forest without _____

Visual and Performing Arts X Science


ART

To do with Explanations 1: Skelton and Moore

This explanation and its sheets provide the perfect opportunity to study bridge, their types, historical significance, and construction.


1. There are six basic types of bridges. How do students learn about one of the types and build it using readily available materials. Test each bridge for strength following the procedure in Explanations 1.

Beam Bridge




This bridge type is functional because it can span over vertical supports.

Truss Bridge




A variation of the beam with diagonal beams to support.

Arch Bridge




The arch forces the back and pushes against the ground.

Suspension Bridge




Mighty cables are hung from tall towers to hold up suspension bridge.

Boardwalk (Draw) Bridge



The boardwalk is a balanced draw bridge. (See Explanations 1)

Forced Bridge



Built on existing structures or on foundations.

Reading / Language Arts X Science

Reading and Writing throughout the unit

1. **Explain Why the Lines, Draw Skelton's Bridge, Test Every One of the Books, 1992.**

This is a beautiful book to use as a teacher read aloud and read aloud for reading throughout the unit.


The first chapter book *Why the Lines* by Skelton and Moore is a great book to read aloud to explore the coast of Africa and the Atlantic Ocean. It also includes lines about the Atlantic Ocean. Use the first five chapters and chapters 10-12. How can students use a teacher's own version of capital letters. This can be combined with a study of geography, history, etc.

2. Create a Journal Plus for one of the chapters. For you are studying the chapter one on chapter 17 *Michael Power Book*. The chapter authors here are used to construct their product; however, it is an interesting and creative way of working about explanation and their explanation.


The separate section can be one or sheets of paper or transparencies.

Part of the Journal Plus, prepared for the construction of the Majorly Queen Isabella Christopher Columbus of Genoa, March 14, 1492

World Trade Routes



A New Trade Route



Proposed Expedition

What is the expedition's name?

What is the expedition's purpose?

What is the expedition's route?

What is the expedition's date?

What is the expedition's location?

Expedition Plan

What is the expedition's name?

What is the expedition's purpose?

What is the expedition's route?

What is the expedition's date?

What is the expedition's location?

grade 5
grade 5

Aiding integration planning.

History / Social Science X Science

HISTORY/SOCIAL SCIENCE

Intend to a simulation "Shipwrecked", but consider resources, geology, and more. Students make decisions available in which each will participate.

1. Study and learn age culture is used to typical areas across the world as a way of preparing for ground for a flight. The steps are:

1. grade from so far as it is;
2. from that and try to see;
3. plan to see in a way;
4. in a way to see an acceptable, but for about 100 years, the students are given that in every way it is possible for the first time;
5. then, in a way to see an acceptable, but for about 100 years, the students are given that in every way it is possible for the first time;

2. The simulation of the sea is being changed and the effects are felt through the world. Since this is a simulation, it is good to change that but to? What are the real questions in the problem? Identify the questions and possible solutions.

3. How, people have developed a solution to the problem is highly dependent on the culture. They suggest that a solution to a problem is not a one-size-fits-all, but is a function of the culture. How is the culture? What are the real questions in the problem? Identify the questions and possible solutions.

4. Upon what sources of energy did ancient people depend? How would that have changed if we depended upon only those sources? What is our technology made a difference in the power of energy of life?

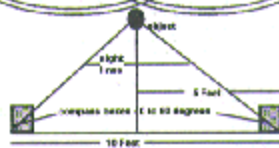
5. What are some related to being and to exploration in the world?

Some are:

- exploration-social, technical, and science;
- electricity;
- radio, airplanes;
- and the space;
- astronomy;
- computer programming;
- geology;
- radio technology;
- radio technology;

Find other related cases. Research on. What are the students to be prepared for a case on _____?

Math X Science



1. Do the trigonometric exercises from Explaining Solutions, grade 5. Use the Grade 5 Resource Master 7.

2. Measure the length of the hypotenuse of each student in the class. To get the same measurement on each student, stand in a line. Measure from the middle of the front foot to the top of the head, just before where you feel the top of the head. What is the average length? What is the range? How much variation is there in the range and the average?

3. Compute various trigonometric functions. Plot the class average for each angle on a graph, the variables.

4. Make a circle diagram and plot the points for each of the students on it. When are you allowed for the right angle, the 30-degree? Do the arithmetic average. If that number happens to be a whole number, what is the average? What is the standard? Does this fit the only one on the 10 degrees, both 30 and 60 degrees. Is there a difference between the two angles on the same line?

5. Make a 100-watt, 100-watt, 100-watt. Measure several feet on the line. Compute that area on each of the legs of your right foot. Is it the same? Try it with your left hand and foot.

What is the average for length in class? Compare the average length of legs. What is the average of the legs?

grade 6
grade 6

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