

# **Green Acres School Primary Unit Curriculum** **2011-2012**

## **The Green Acres School Mission Statement**

Green Acres is a coeducational, progressive school for grades pre-kindergarten through eight, dedicated to fostering the natural curiosity of students, engaging them actively in the joy of learning and facilitating problem solving. Based on an understanding of child development, Green Acres' program is cognitively, physically and creatively challenging. Valuing acceptance of a variety of viewpoints, this community promotes socioeconomic and cultural diversity. An environment of trust, cooperation and mutual respect encourages students to become increasingly independent thinkers and responsible contributors to an ever-changing, multicultural world.

## **Lower School Life**

The Lower School is centered around teaching students to be responsible, thoughtful, and independent in both their academic work and in their relationship with others. Through work in the classroom, within classrooms and units, and in discussion with individuals the relationship between freedom and responsibility is highlighted. Our students learn what it means to be accountable for personal choice – that with freedom there is the opportunity to take risks but also the accountability for the decisions and actions followed. Children are frequently given choices as a way for them to exercise independence and to support their interests. Additionally, students are expected to behave in a caring and compassionate way toward others and to act with care toward their school environment.

The close connections between students and teachers foster an atmosphere of honest, trusting communication where children are invited to voice their opinions and to learn the art of actively listening to the perspectives of others. Students in the Lower School have many opportunities to practice being part of a community through class meetings or Kidtalk. Students help to form classroom guidelines at the beginning of the year because they accept rules better when they have a part in making them. As problems develop, adults and students solve them together. Teachers support children as they work through problems, suggesting alternative solutions, if necessary. We encourage children to make choices and expand their ability to be responsible for their actions.

We deeply believe that educating a child is attending to academic, social/emotional and the physical growth and progress of our students. The planned instruction in the subjects outlined further on in this packet, as well as what students have the opportunity to learn through everyday living as a part of the Green Acres community, demonstrate a commitment to educating the “whole child.” We believe learning occurs best in an active, stimulating environment. How teachers arrange the classroom will vary with the task and goals of the teaching moment. In and out of the classroom, all adults are dedicated to providing an educational experience based upon the Green Acres mission and philosophy.

## Social/Emotional Growth & Habits of Mind

Children are encouraged to make choices and expand their ability to be in charge of themselves and their own work. Students are supported in acquiring the skills and behaviors found in the following checklist. Throughout the year, children solve problems and engage in activities to help them develop positive social relationships and healthful habits. Topics of study/discussion include friendship, cooperation, affirmation, conflict resolution, and age-appropriate information about health-related issues. These topics are addressed in nurturing settings including homerooms, Kidtalk, class meetings, and in small problem-solving groups as needed.

This checklist helps you know the specific skills we are focused upon; the checklist will be used as a part of reporting about the progress of each student throughout the year.

<b>Social/Emotional Growth</b>
<b>Internal Self Control Skills</b>
<b>Observes Classroom Routines:</b>
Follows school routines
Seeks help when needed
Observes community agreements
<b>Demonstrates Resilience:</b>
Accepts correction and guidance
Uses a variety of problem-solving skills
Has strategies for handling frustration
Balances the needs of others with own needs
<b>Demonstrates Responsibility:</b>
Accepts responsibility for own behavior and actions
Makes appropriate decisions
Takes care of own belongings
Respects the belongings of others
Takes care of our community and environment
<b>Connection to Others</b>
<b>Demonstrates the ability to work with others:</b>
Respects the ideas and feelings of others
Is positive in interactions with others
Cooperates in peer initiated activities
Participates appropriately in adult directed activities
Is flexible to group needs
<b>Builds connections to others:</b>
Shows consideration for others' ideas and feelings
Honors strengths and differences in self and others
Is open to new friendships
Is willing to broaden social group to include others
<b>Demonstrates skill in handling conflicts:</b>
Is able to advocate for self
Is able to advocate for others
Applies a variety of approaches to resolve conflicts, including self advocacy, negotiation, and compromise

<b>Habits of Mind</b>
<b>Receptivity &amp; Follow Through in Learning</b>
Has a positive attitude
Participates fully in an activity
Sustains focus
Follows written directions
Follows directions given orally
Shows organization in work and use of materials
Successfully completes tasks in a reasonable amount of time
Takes responsibility to complete work
Is flexible in trying new experiences
Works independently
Seeks help when needed
Takes initiative to extend learning
Uses an appropriate amount of teacher time
<b>Reflective Practice</b>
Sets goals
Evaluates and reflects on own performance
Works for quality and accuracy
Selects appropriate independent activities
<b>Group Process Skill in Learning</b>
Listens actively
Listens respectfully to others
Volunteers thoughts and ideas in class discussion
Expresses ideas clearly
Works collaboratively with a variety of peers
Works equally in a partnership
Seeks input and suggestions from peers
Balances social interest and class work
Allows others to work undisturbed

## **Social Studies and Science: Themes in the Primary Unit**

The thematic content of social studies and science is infused into the content of many parts of the day for first and second grade students. Teachers collaborate to weave the themes into the student's studies so the topics come alive for students in a creative, integrated way. The first and second grade Social Studies themes rotate on a two year cycle; children do not study the same topics each year.

### **2011-2012 Thematic Units:**

- ❖ **Migration: Amazing Animal Journeys**
- ❖ **Roots: Our Family Stories**
- ❖ **Meeting Basic Needs: Weaving Around the World**
- ❖ **Ways People Live: Mexico**

Focusing on themes allows the students to explore social organization, how people relate to each other, how humans relate to the environment, how people sustain themselves, and how science and the arts have developed from peoples' basic needs.

The thematic studies in the Primary Unit unify our curriculum studies. They provide ideas for reading, writing, and math, and they enrich all areas of learning. The emphasis is on learning the basic concepts and the process of collecting information, dealing with facts, drawing conclusions, and communicating with others.

During the first and second grades, the children's work includes the opportunity to:

- participate in activities and group discussions
- use resources-obtain information from individuals, discussions, pictures, books, etc.
- generalize from own experience to experience of others
- show awareness of similarities and differences among people, places, and cultures
- show some understanding of geographic spaces
- show some sense of time (history and sequences - before, after, etc.)

## **Language Arts: First Grade**

Building on the foundations laid in Pre-K and Kindergarten, the first grade Language Arts program continues to develop reading, writing, listening, and speaking skills through the use of various techniques, materials, and activities. Reading, writing, listening, and speaking are not taught separately; rather, they are intertwined throughout all of the language and-theme-based activities in which students engage. The program focuses on helping children to break the reading code, develop reading strategies, learn how to comprehend an author's text, understand how to be responsive listeners, and become skilled at communicating their own messages and ideas orally and in writing. Each year, children enter first grade with a diversity of skills and learning styles. Teachers take these differences into account in planning the specifics of the Language Arts program.

### **Components of the First Grade Language Arts Program**

- **Shared Reading** - The teacher reads a story aloud to the class and incorporates instructional strategies into the discussion of the book
- **Guided Reading** - Children meet in small groups with the teacher, who helps them to apply and develop reading strategies as they interact independently with a text.

- **Partner Reading** - Children enjoy stories with partners in a variety of ways.
- **Read Aloud** - The teacher reads aloud as children listen.
- **Responses to Literature** - Children talk, draw, write, and engage in dramatic and artistic activities in response to stories.
- **Independent Reading** - Children enjoy books of their own choosing.
- **Individual Reading Conferences** - The teacher meets with students in individual reading conferences to check on their independent reading.
- **Journal Writing** - Children draw and write in a variety of journals.
- **Handwriting** - Handwriting is taught formally in first grade using the Handwriting Without Tears program. We emphasize accurate formation of upper and lowercase letters, spaces between words, and basic capitalization and punctuation conventions.
- **Sounds** - Letter-sound relationships usually are explored in the context of texts and literature studied, as well as through direct training in phonemic processing and alphabetic code knowledge through games and small-group lessons with the teachers.
- **Dictation** - During this teacher-directed time, children learn correct letter formation and the sounds associated with each letter. Later, dictation focuses on whole words and spelling.
- **Writers' Workshop** - In the second semester, children select topics about which to write. They move their drafts through an introduction to the stages of the writing process, including writing first drafts, conferencing with their peers and then with an adult, editing and revising their drafts, and creating final versions. Skills are taught during "mini-lessons" as well as through editing conferences with teachers.
- **Spelling** - Children are in the process of moving through the following developmental spelling stages: Pre-communicative, 2) Semi-phonemic, 3) Phonemic, 4) Transitional, and 5) Conventional

As the year progresses, children begin to acquire spelling skills and strategies. This is achieved through a variety of instructional approaches, including the uses of "Word Walls" and spelling lists. Children receive lists with appropriate high-frequency words and the correct spellings of words they have misspelled in their writing. Children work with a different group of words each week, practicing how to spell each word correctly through a variety of activities.

### **Language Arts: Second Grade**

The second grade Language Arts program is a rich and diverse one that concentrates on the natural development and interaction between reading, writing, listening, and speaking. The program builds upon the foundations children have developed in kindergarten and first grade. Skills and strategies related to reading and writing are emphasized through each component of the program. The program is designed to develop a love of reading and writing and to increase stamina and fluency in both areas to prepare for content work in third and fourth grade. The program focuses on developing comprehension skills, understanding text, supporting opinions about reading selections, being responsive listeners, and communicating their own messages and ideas orally and in writing. Students are taught to recognize their own styles and preferences, discuss their experiences and attitudes about reading, and they learn to view themselves as competent readers and communicators. Reading,

writing, listening, and speaking are not taught separately; rather, they are intertwined throughout all of the language and curriculum-based theme activities in which students engage.

### Components of the Second Grade Language Arts Program

- **Shared Reading** - Children see the text, observe an expert --usually the teacher-- reading it with fluency and expression, and are invited to read along.
- **Guided Reading** - Children meet with the teacher, who guides them through the text.
- **Partner Reading** - Children enjoy stories with partners in a variety of ways.
- **Read Aloud** - The teacher reads a literature selection as children listen.
- **Literature Discussion Groups** - Children discuss and interpret works of literature that often are based on themes. They share their reflections on the reading and respond to the ideas of others.
- **Responses to Literature** - Children talk, draw, write, and engage in dramatic and artistic activities in response to stories. These are often connected to the themes.
- **Independent Reading** - Children read books of their own choosing. Times when children read on their own help to build stamina and fluency.
- **Individual Reading Conferences** - The teacher meets with students in individual reading conferences to check on their independent reading and to work with them on reading strategies.
- **Journal Writing** - Children record their ideas, feelings, impressions, and observations in a variety of journals.
- **Writers' Workshop** - Children select topics about which to write. They move their drafts through the stages of the writing process, including writing first drafts, conferencing with their peers and the teacher, editing and revising their drafts, and creating final versions. Skills are taught during "mini-lessons" as well as through editing conferences with teachers.
- **Spelling** - As the year progresses, children continue to acquire spelling skills and strategies. This is achieved through a variety of instructional approaches that include the study of spelling patterns, spelling lists and other activities.
- **Sounds** - Letter-sound relationships usually are explored in the context of texts and literature studied.
- **Handwriting** - Manuscript letters using the Handwriting Without Tears program are reviewed.

## **Mathematics: Primary Unit**

John Kunz from Mathematics Made Meaningful writes: "The mathematics programs now in use throughout the United States place great stress on the importance of understanding the structure and meaning behind mathematical operations, and less emphasis on the simple memorization of the specific techniques of those operations and their use in solving problems. This stress on meaning, incidentally, makes today's child better at mathematical computation than children were in the past, even though the methods he or she uses may seem strange or even slow to some adults. Computational skills in arithmetic will not be sufficient for your child as an adult in the future. Much of routine computation will be handled by automated machines. An understanding of mathematical structure and relationships, however, will be vitally important."

It is important for early learners in the first and second grade to see themselves as mathematicians as this influences their attitudes and decisions about studying math in later years. This is why the Primary Unit uses a conceptually oriented math program that makes the learning of math engaging and playful. It is also essential that students of this age are well grounded in mathematical ideas so that they may develop a depth of understanding. The National Council of Teachers of mathematics notes that the success students achieve in later grades depends largely on the quality of the foundation that is established in the first five years of school. The Primary Unit children use a developmentally appropriate math program that balances intellectual and social development.

The Primary Unit mathematics program focuses on instruction and practice with manipulatives as a way to help students discover and understand important mathematical ideas. Written work and games then follow, permitting the child to explore the mathematical principles further and to gain skill in applying them. The Primary Unit uses two math programs to support student understanding in math: *enVisions* and *Investigations*. These programs work well together as *enVisions* primarily works on developing concept understanding, vocabulary, and practice with math algorithms. *Investigations* focuses on conceptual understanding built through problem solving and application of mathematical concepts. Both programs allow the teachers to assess student understanding before, during, and after each unit. This enables each teacher to assess each child's mathematical understanding throughout the year and to determine how to best challenge each individual and the class as a whole.

The Primary Unit Mathematics program introduces children to many important concepts and skills by focusing on a number of different mathematical focal points during the two years. It is essential that these concepts be taught in an environment that promotes problem-solving, reasoning, communication, making connections between concepts, and designing and analyzing different representations of their problem solving ideas. Skills are reviewed allowing each child's understanding of these ideas to develop over time.

### **Key Features of the First and Second Grades Math Program**

- Problem solving, applying math to everyday situations
- Developing readiness through hands-on activities
- Establishing links between past concepts, experiences, and explorations
- Sharing ideas through class discussions
- Learning cooperatively through partner and small-group activities
- Practicing mathematical concepts through games
- Engaging in writing to explain mathematical reasoning and to practice and reinforce skills and concepts

## **Subject Areas of the Primary Unit Math Program**

(\* Indicates second grade level)

- **Numeration**
  - Saying, reading, and writing numbers.
  - Counting patterns verbally, and working with place value, whole numbers, fractions, and decimals. First graders work through the hundreds' place. Second graders work through the thousands' place.
  - Exploring the concept of part-to-whole relationships is stressed.
  
- **Operations (+, -) and Computation**
  - Working with addition and subtraction with regrouping, using simple division and multiplication, and using estimation to predict and check results.
  - Developing an understanding that there are many ways to solve problems and gain the same results. There is a focus on developing a variety of problem solving strategies.
  - Learning and using "fact families" to learn addition and subtraction facts.
  - Memorizing number facts. Playing games and engaging in exercises to practice arithmetic skills.
  - Developing strategies to make reasonable estimations and check answers.
  - Practicing mental and written arithmetic in problem-solving contexts.
  
- **Data and Chance**
  - Collecting, ordering, and displaying data.
  - Creating tables, charts, and graphs.
  
- **Geometry**
  - Constructing 2- and 3-dimensional shapes.
  - Using geometric knowledge and spatial reasoning to develop the foundation for understanding area and fractions.
  
- **Measurement**
  - Understanding the need for standard units.
  - Learning about measures of length, area, capacity, weight, and temperature.
  - Developing an understanding of clocks.
  - Creating calendars.
  - Using time lines, rulers, and thermometers.
  - Learning ordinal numbers.
  - Recognizing and exchanging coins and currency.
  
- **Patterns, Functions, and Algebra**
  - Learning about attributes, patterns, sequences, relations, and functions.

**Green Acres School Primary Unit Art**  
**2011-2012**

**Elena Patino**  
**Art Teacher**

**Groupings:** First and Second grade students meet once a week for 60 minutes in the art studio.

**Goals:**

- Building from the idea that every child is an artist, strive to promote self-confidence in students' creation of art
- Engage students in the joy of exploring materials and allow them opportunities to discover other cultures' artistic expressions
- Focus on process, rather than product
- Work in collaboration with Homecorner teachers and other teachers of special subjects to integrate art activities with thematic studies
- Build the appropriate foundation to facilitate students' future experiences in the art studio

**Skills and Concepts:**

- Introduce children to the elements of art and provide them with opportunities to recognize such elements in their work and the work of others. Line, shape, form, and color are informally introduced as students learn basic concepts of design, such as balance and harmony.
- Provide opportunities for cultural diversity awareness
- Allow the chance for students to use materials as metaphor (fantasy vs. reality concept)
- Provide opportunities to begin using observation as a source of inspiration (fantasy vs. reality concept)
- Continue to offer students opportunities to master fine motor skills through cutting, twisting, binding, tearing, etc.

The Art teacher works closely with the First and Second Grade classroom teachers in order to integrate their thematic units of study into some aspects of the art curriculum. The art studio is an environment where each child is invited to explore, experiment, and give greater voice to his/her creative self.

# Green Acres School First Grade Creative Movement

## 2011-2012

**Mary Sing**  
**Creative Movement Teacher**

### **Grouping:**

Creative Movement is taught to the first grade once a week starting in late January. Each of the classes will have eight or nine weeks of Creative Movement. Half of the first graders will have Creative Movement from late January to early April, and the other half of the class will meet from mid April until June. The class periods are forty-five minutes long.

### **Goals:**

- Encourage creativity and spontaneity through safe, fun movement activities that are developed using the children's ideas
- Explore rhythms and songs of different cultures through movement and music
- Develop body awareness (self-awareness on physical level): body boundaries, what specific body parts can do individually and in combination with other body parts, including use of voice, spatial awareness
- Develop body mechanics: explore movement range from vigorous action to resting, coordinate movement with verbal direction, experience personal focus of strength and energy
- Explore patterns in movement and create short movement pieces
- Develop movement activities that integrate the Primary Unit themes of Weaving and Mexico
- Provide practice at working collaboratively within a group

### **Format of Classes:**

**Opening Activities:** Sessions begin with a gathering time to help focus the children. These opening activities bring the group together, smooth the transition to movement time, and help the children focus on class theme.

**Warm-up Activities:** The warm-up activities allow for vigorous, high-energy release within a structured framework. These activities are opportunities to explore a wide range of movements and body actions. General objectives are to loosen the muscles, to stimulate the brain, to move with other children safely without collision, and to feel one's personal creativity.

**Movement and Body Awareness:** These activities concentrate on the development of body skills. General objectives are to explore new movements, explore shapes one's body can make, recognize body parts, and explore movement with both the whole body and isolated parts. The classes also include body expression and rhythm.

**Group Theme:** This part of the session incorporates ideas and themes from the children. Movement structures are created to bring the ideas to "life." The themes may be based on the classroom focus at that time, or perhaps something completely different. In this way, the Creative Movement sessions balance a connection with the classroom themes with an opportunity for new imaginative material to emerge. Books, costumes (created by children when possible), and other props may be used to enhance this creative process.

# Green Acres School Second Grade Creative Movement

## 2011-2012

**Mary Sing**  
**Creative Movement Teacher**

### **Grouping:**

Creative Movement is taught to the second grade classes once a week starting in September. Each of the classes will have eight or nine weeks of Creative Movement. Half of the second graders will have Creative Movement from September to early November, and the other half of the class will meet from early November until mid January. The classes meet for forty-five minutes a week.

### **Goals:**

- Encourage creativity and spontaneity through safe, fun movement activities that are developed using the children's ideas
- Explore rhythms and songs of different cultures through movement and music
- Develop body awareness (self-awareness on physical level): body boundaries, what specific body parts can do individually and in combination with other body parts, including use of voice, and spatial awareness
- Develop body mechanics: explore movement dynamics of light and strong force, quick and sustained time, and direct and indirect spatial attention
- Create different patterns in movement and learn to sequence patterns to create a movement piece
- Develop movement activities that integrate the classroom themes of Migration and Roots.
- Provide practice at working collaboratively within a group

### **Format of Classes:**

**Opening Activities:** Sessions begin with a gathering time to help focus the children. These opening activities bring the group together, smooth the transition to movement time, and help the children focus on the theme.

**Warm-up Activities:** The warm-up activities allow for vigorous, high-energy release within a structured framework. These activities are opportunities to explore a wide range of movements and body actions. General objectives are to loosen the muscles, to stimulate the brain, to move with other children safely without collision, and to feel one's personal creativity.

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**Group Theme:** This part of the session incorporates ideas and themes from the children. Movement structures are created to bring the ideas to "life." The themes may be based on the classroom focus at that time, or perhaps something completely different. In this way, the creative movement sessions balance a connection with the classroom themes and provide an opportunity for new imaginative material to emerge. Books, costumes (created by children when possible), and other props may be used to enhance this creative process.

**Closing Activities:** These activities help the children to re-focus on their own bodies and to practice relaxing and resting. A brief review of the session's events and a reference to the upcoming activities in the classroom help smooth the transition back to the classroom.

# Green Acres School Primary Unit Handbells

2011-2012

**Jocelyn Johnson**  
**Handbells Teacher**

**Groupings:** First and second grade students work with belleplates once each week for 45 minutes, over a nine – ten week period. Students are in small class groups of 5-7.

## **Philosophy:**

Handbells class is an introduction to ensemble music. Playing belleplates fosters a unique opportunity to practice cooperation and teamwork. The students in Second grade continue their bell experience during the first half of the school year and students in the First grade are introduced to belleplates during the second half of the school year.

Students in the First grade begin instruction using one belleplate and become comfortable with the ringing motion, color symbol patterns, and collaboration as an ensemble. As they adapt, they may begin to use two belleplates.

Second grade students continue their music experience with two belleplates and are introduced to new color symbols for songs. They also explore additional ways to follow the music independently. Through bell ringing, the students apply their knowledge of rhythm, dynamics, and tone to the music. These concepts are expressed by hearing, physical movement, sight, and musical expression.

## **Units and Activities:**

Each group will learn pieces for the assemblies that are related to their social studies units: Second grade will prepare songs for the Migration and Roots assemblies and First grade will prepare songs for the Weaving and Mexico assemblies.

## **Skills and Concepts:**

- Proper hand position and use of good posture
- Techniques for ringing and damping sound
- Chordal note reading using color symbols
- Teamwork and Cooperation
- Care of the instrument

**Green Acres School Primary Unit Library**  
**2011-2012**

**Ruth Phang**  
**Librarian**

**Groupings:**

Primary Unit students come to the library once a week for 45 minutes in language arts groupings. During their time in the library they have the opportunity to listen to books of all kinds, including picture books, nonfiction, and poetry. Sometimes the students take part in related craft or drama activities related to the stories they have heard. During library time the students select books to check out.

**Goals:**

- Encourage the love of books and reading and present the library as a beckoning, comfortable place
- Develop listening skills and the ability to take turns
- Expose children to a variety of types and genres of literature and subjects, including books that reflect different cultures
- Promote discussions of books and/or book related topics

**Content:**

The selected pieces of literature usually are tied to the social studies curriculum: Migration, Roots, Mexico, and Weaving. Within these studies there are many opportunities to expose the students to different cultural perspectives, especially in the study of Mexico and Roots.

First grade is the first time Green Acres students may check out books from the library. Choosing their own books allows children to explore their own interests and to develop independent judgment when selecting a book. Sometimes students choose books that are too easy or too hard for them to read. By trial and error, and with suggestions from the librarians and teachers, they learn to make choices that match their reading level. Parents are encouraged to share the books their students bring home and to help their children return the books on time.

Please continue to read aloud to your children. Take your children to the public library regularly, set a good example by reading yourself, and enjoy reading books aloud together.

## Green Acres School Primary Unit Music

2011-2012

**Nan Shapiro**  
**Music Teacher**

**Groupings:** Each student comes to music for one 45-minute period each week, in groups of 8-13.

### **Philosophy:**

Zoltan Kodaly, Hungarian composer, educator and musicologist, developed a system of music education that forms the basis for the music program at Green Acres. The Kodaly method is eclectic, borrowing from the work of other music educators such as Dalcroze and Curwen. Its foundation is singing, beginning in early childhood. Children are encouraged to sing, play instruments, and dance, learning folk music of their own culture, and exploring music of other cultures. They perform, listen to, and analyze great art music of the world. They learn musical skills such as music reading and writing, singing, and part-singing. They improvise and compose at each level.

### **Skills and Concepts:**

Essential questions for the year are:

- How does music move?
- How do I move to music?
- How does music move me?

Concepts revolve around basic elements of music: tempo (fast or slow), dynamics (loud or soft), pitch (high or low), and duration (long or short).

Skills include keeping a steady beat, playing and singing simple melodies and rhythms, playing melodies and ostinatos on mallet instruments, and beginning to use adapted musical notation.

### **Materials:**

- The Silver Burdett *Music Connection* series
- Multiple library and music resources, including picture books, music books, records, tapes, CD's and videos
- Pitched mallet instruments and unpitched percussion instruments
- Simple handmade instruments

### **Units and Activities:**

The music program for the Primary Unit will complement social studies and science themes throughout the year:

- Migration - singing songs about migratory animals and travel; performing movement and instrumental activities that complement these songs
- Roots - songs about family, playground game songs, and music from our countries of origin
- Weaving - singing songs from many cultures about weaving cloth and making clothing
- Mexico - singing songs from Mexico in English and Spanish; learning about the musical heritage and traditions of Mexico

In addition, we will observe the cycle of the year by singing songs appropriate to the seasons and to the lives of the students.

# Green Acres School Primary Unit Science

## 2011-2012

**Sean Smith**  
**Science Teacher**

**Groupings:** Students come to science in Language Arts groups two times each week. One period each week is "exploration time" during which the students work with different science exploration activities. The exploration period is one hour in length. During the other science period, 45 minutes in length, the students focus on studying a primary scientific topic.

### **Goals:**

- To encourage students to observe their world carefully and understand the connections of all its elements, living and nonliving
- To encourage students to question actively and problem solve during investigations, furthering the development of their critical thinking skills
- To have students gain experience with a range of scientific tools that aid in obtaining facts: microscope, ruler, journal, thermometer, simple balance and binoculars
- To have students practice various ways of recording and interpreting their observations such as graphing, drawing, writing, speaking and measuring
- To have students begin to understand the basics of conducting an experiment
- To have students work successfully in cooperative groups as well as independently during various explorations

**Topics:** The Primary Unit science program covers the topics listed below. Many of the topics for science units are integrated with the 1<sup>st</sup> and 2<sup>nd</sup> grades Social Studies themes. Second graders study the topics in greater depth than first graders.

### **Bug Hunts**

- Observe and investigate the diversity, habitat preferences of insects in the GAS woods
- Collect, organize, and analyze data
- Share information systematically

### **Weaving**

- Experiment with weaving various materials
- Create and test different dyes

### **Roots: Genes and Physical Characteristics**

- Observe the presence or absence of different genetic characteristics (phenotypes)
- Collect, analyze, and report data
- Discuss the results and how they relate to an individual's roots

### **Student Choice**

- Cooperate successfully to choose, plan and conduct an investigation
- Collect, analyze and report data

### **Explorations**

science laboratory introduction  
cup structures  
bubbles  
polyhedral

Lego  
animals  
cardboard structures  
box of boxes

electricity  
stick weaving  
sound