

BOTANY COURSE FOR GRAMMAR SCHOOL

FOREWORD

To Future Botany Teachers:

Our Botany class project is comparable to Topsy in Uncle Tom's Cabin--
"It jes' grewed!"

We are well aware that scientific courses have been laid out in handsomely bound and lavishly illustrated text books. But, as missionaries, we do not always have accessibility to expensive teacher aids, especially in our bush schools. Our purpose in organizing this Botany course, therefore, was to give the mission Sister some simple plans, projects and ideas for stimulating in their pupils a scientific interest in Botany.

Since the writers are Freshmen, not yet at home with syllabuses and lesson plans, we ask you to bear with our shortcomings in teaching techniques.

We have tried to cover one month's teaching of Botany, based on the time schedule for science in the schools of the New York Archdiocese:

First Grade:	40	minutes	per	week
Second "	50	"	"	"
Third "	50	"	"	"
Fourth "	60	"	"	"
Fifth "	80	"	"	"
Sixth "	80	"	"	"
Seventh "	80	"	"	"
Eighth "	80	"	"	"

In each grade, one month's material is presented for the individual teacher herself to divide into weekly lessons.

The outlines preceding each grade have been taken from a Course of Study in Science published by the School Board of the Archdiocese of Chicago. Through group discussions, with this Course as our guide, we decided what material should be covered or reviewed in each particular grade.

We have followed our own Sister Mary St. Lawrence's idea in her course, Exploring Nature in Hawaii, by presenting material for the teacher first in each grade and then sample material to be distributed to the children. Sister St. Lawrence inserted material for the teacher before each chapter of her book because as she states, "Broader knowledge of a subject is sometimes necessary to evaluate a remark or answer a question voiced by an inquisitive child." In the Seventh and Eighth Grades, the more technical terms have been used in the Teacher's section. In these grades also, you will notice the subject matter of cells necessarily brings in two other branches of biology, zoology and physiology, in connection with the botany lessons.

Pictures. In First and Second Grades, especially, pictures were drawn that could be reproduced for your own Botany classes in these grades since very little text can be given to First and Second Graders. All pictures were meant for the children and our artists gleaned ideas from the books appearing in the Bibliography, the World Book and plates in our College text. Several of the Fifth and Sixth Grade pictures, especially, were original.

Photocopy from the
Maryknoll Mission Archives
May not be reproduced
without permission

FOREWORD (Continued)

Our Bibliography gives some idea of sources. However, we also used songs and poems from our own notes on music and literature and various ideas were original with our Botany class.

We hope our Topsy Project finds a spot in many botanical gardens throughout the mission world of schools.

Botany Class of '59

Photocopy from the
Maryknoll Mission Archives
May not be reproduced
without permission

BOTANY COURSE

GRADE I

I. Objectives

- A. To cultivate an interest in and a curiosity about the world in which we live.
- B. To understand God's part in the wonders of nature.
- C. To require some basic understanding of flowers, trees and plants.

II. Content

Living things around us

- A. Flowers vary in size, color and fragrance.
- B. Trees - different color of leaves
- C. Plants that we eat
- D. Seeds of fruit trees

III. Expected Outcomes

- A. The knowledge that plants, trees and flowers are living things.
- B. The knowledge that all living things were created by God and the appreciation of the beauty of living things.
- C. The ability to know differences in flowers, trees and plants.

Photocopy from the
Maryknoll Mission Archives
May not be reproduced
without permission

Photocopy from the
Maryknoll Mission Archives
May not be reproduced
without permission

Teacher's Outline for Class Work

A. Approach

"Trees, plants and flowers are living things about us. God made them all and He makes them grow. Let us see how many different flowers you know and we will then learn some new kinds of flowers."

Let the children tell you names of flowers they have in their garden or the flowers they have seen on their way to school.

B. Activities

1. Children can bring to class flowers from their gardens.
2. In Fall, they could collect pretty colored leaves.
3. Children could cut out pictures of flowers and trees in magazines at home.
4. Teacher will give out drawings to be colored in class.
5. All the ideas above will be put in a Botany notebook.
6. A class project might be to plant a bean seed in a jar and watch it grow.

C. Correlation with other subjects

1. Religion
 - a. Story of creation by God. The part where God put plants, trees and all kinds of vegetation on the earth.
 - b. Our Lord's gospel story of the lilies of the field and how beautiful He said they were. His Father in Heaven clothes the lilies and they are more beautiful than Kings all dressed up!
2. Geography
 - a. Many different plants, trees and flowers grow in different parts of the world.
 - b. All the living things depend on the sun to live.

Lesson Plan Outline

First week: 2 lessons

I. Topic - flowers

- A. "Today, children, we are going to see how many flowers we know." (Have real flowers (some florists will give away old flowers) and have pictures of the more popular flowers such as the rose, lily, violets, tulip, daffodils, buttercups, trillium (perfect flower).
- B. Teacher could hold up pictures of flower or real one and ask the children to name all the different COLORS they see.
- C. "Besides all these beautiful colors, the flowers are all different sizes. And they all SMELL differently, too. Now one by one you may all come up and SMELL the flowers on my desk."

- D. "We must all remember that God made all these beautiful flowers and we must often thank Him."
- E. Encourage conversation about flowers:
 1. What flowers do you like best?
 2. What flowers do you have in your garden?
 3. If you had a garden, what flowers would you like in it?

II. God's Flower Show

- A. You have asked the children to bring one flower from their garden. (Have some for those that cannot bring one.)
- B. Teacher will have a statue or picture of Christ or Our Lady on a stand. Around it will be vases for the children to put their flowers in.
- C. Each child in turn will bring up his flower and put it in the vase. While they do this, the teacher will remind them that they should thank God for all the beautiful flowers.
- D. When all have placed their flowers around the statue or picture, children will gather around and sing a song about flowers.

Second Week: 2 lessons

I. Flowers (continued)

- A. Teacher will give out drawing of a flower to the children.
- B. "Today, children, we are going to start a flower book. When it is all finished, you may bring it home to your mother."
- C. I will put the pictures of the flowers on the board and you may color your flower with the same colors you see in my picture.

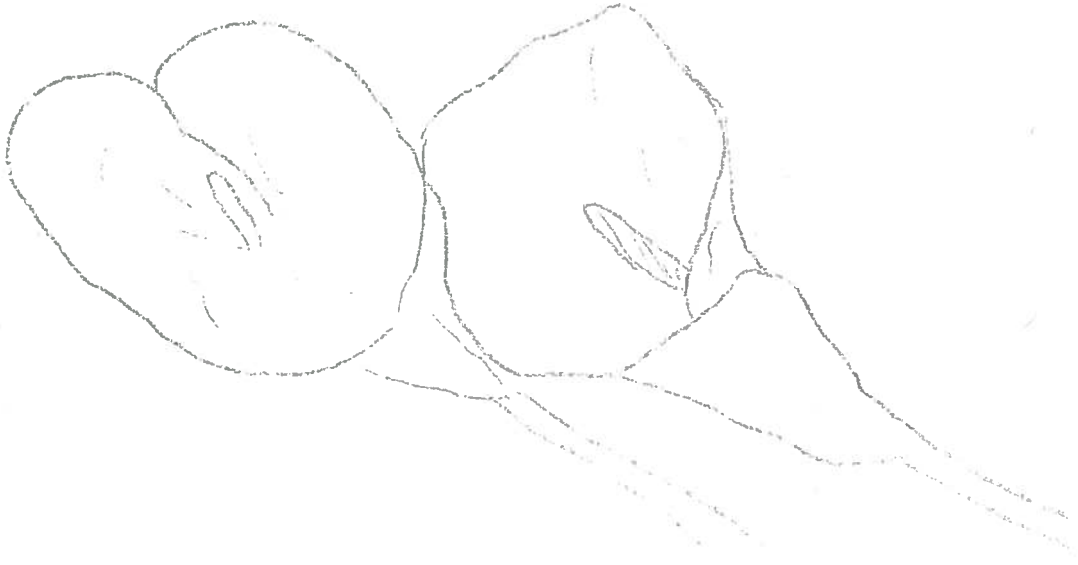
II. Review of flowers

- A. Ask the children to name several kinds of flowers. Hold up pictures and let them tell you what kind of flower each is.
- B. Print on the blackboard several names of the more popular flowers. Ask the children to print these on a sheet of paper for their notebooks.
- C. Heading of paper could be, KINDS OF FLOWERS. (The printing is good practice for the children -- correlation here of writing or printing.)

Photocopy from the
Maryknoll Mission Archives
May not be reproduced
without permission

Photocopy from the
Maryknoll Mission Archives
May not be reproduced
without permission

LILY



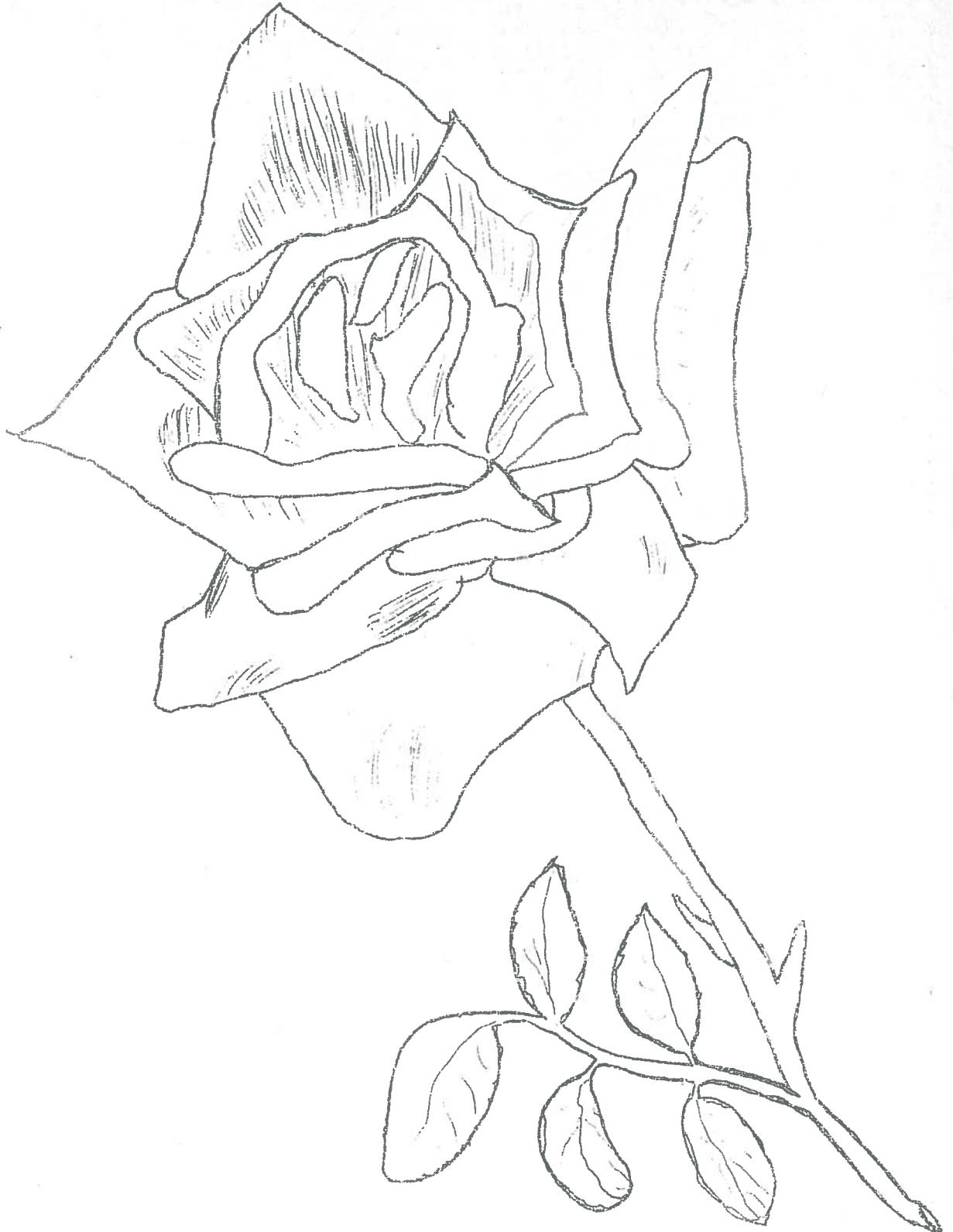
Photocopy from the
Maryknoll Mission Archives
May not be reproduced
without permission



TRILLIUM

Photocopy from the
Maryknoll Mission Archives
May not be reproduced
without permission

ROSE



Third Week: 2 lessons

I. Topic - leaves in Autumn

- A. You have asked the children on their way to school to pick up all the pretty colored leaves they see on the ground.
- B. "God made this beautiful time of year when all the trees have many different colors."
- C. "Who can name some of the colors of the leaves?" (red, yellow, brown, orange, etc.)
- D. "Here is a drawing of a few different shapes of leaves and you may color them whatever color you wish. This will be for your little notebook."
- E. Bring in here the need that leaves have for the sun and review the need of all living things for sunshine.

II. Topic - seeds

- A. Teacher should have pictures of well known fruits and ask the children to name them.
- B. "Now all these fruits have seeds inside of them. This is what is planted and grows into a plant or a tree."
- C. There are many different kinds and sizes of seeds. Here are a few: bean seed, scorn--oak tree; maple--maple tree; fruit seed--cherries, peach and apple.
- D. "Today, children, we will plant the bean seed and we will watch it grow into a little bean plant."
- E. "Now many things that grow outside at one time started from a seed. Usually man plants the seed, but God's power is what makes it grow into a small plant or a very large tree like you see outside."

Fourth week: 2 lessons

I. Seeds (continued)

- A. "Today, children, we will color this drawing of fruits and remember that the seeds are inside the fruit."
- B. Drawing could be of apple, peach, cherries, etc.
- C. We will also make a little list of KINDS OF SEEDS for our notebook. (Above seed example for this--Third Week II, C.)

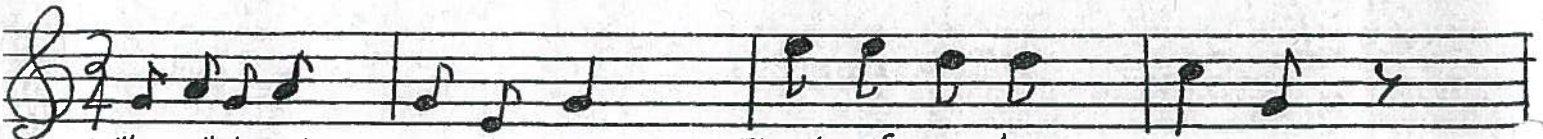
II. Plants that we use for food.

- A. Teacher should show pictures of plants that grow in most gardens.
- B. Let the children name the vegetable plants as you hold the picture up for them.
- C. Most common food plants are: carrots, beets, tomatoes, lettuce, potatoes.
- D. Now let the children look at their bean plant and tell them how it grew because of the sun and water it had.
- E. "Can anyone name other plants that we eat?"
- F. "Here is a drawing of a few plants that we eat. You may color them for your notebook."

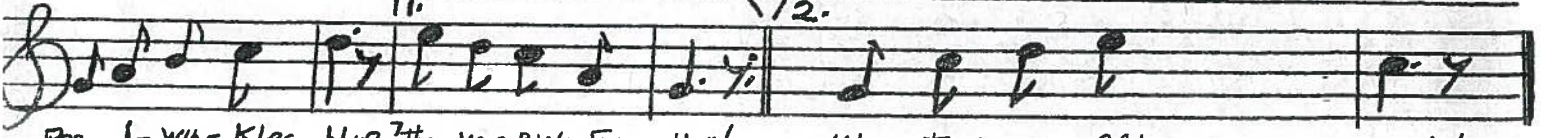
"We must always remember, children, that God made all these trees, plants and flowers. They are all beautiful, but how much more beautiful is God who put all these things on the earth to remind us of Him. Let us always think of God when we see the trees, plants or flowers and thank God for making them for us to enjoy."

The FLOWER GIRL

p. 50

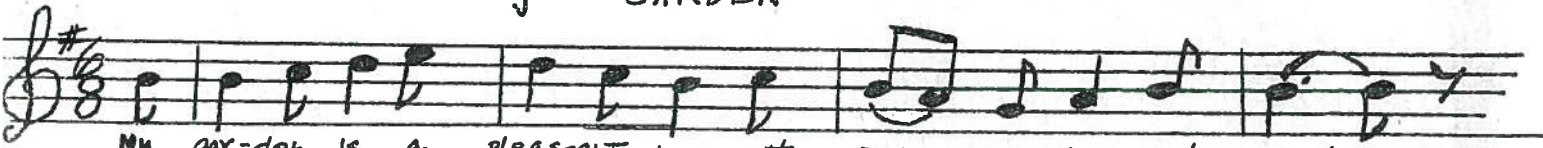


1. Who will buy my Love-ly Flow'rs, Flow'rs of ev-'ry col - or,
2. Li-lacs fed by A-PRIL Show'rs, Lil-ies of the val - ley,

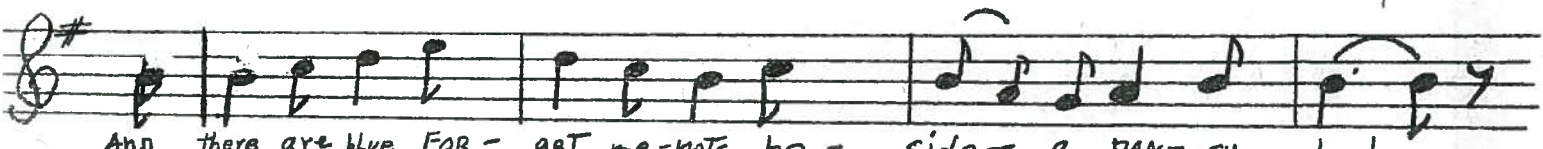


Per - i - win - Kles blue they were pick For you! ALL That you can hold!
Joh - gills made of gold,

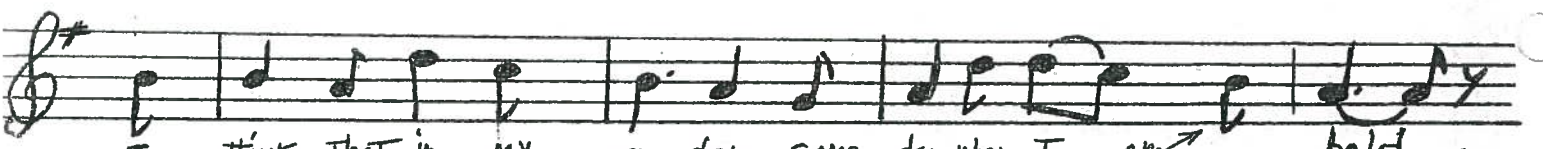
My GARDEN



My gar-den is a pleas-ant place, with ROS - es white and Red, -



And there are blue FOR - get me-nots be - side - a PAN - sy bed. -



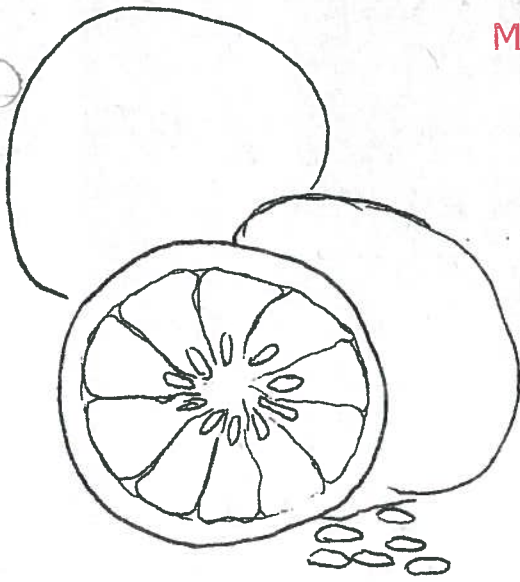
I THINK THAT in MY gar-den, some day when I - am - bold, -



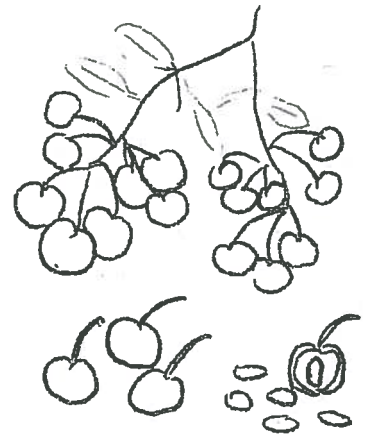
I'll sure-ly see a FAIR - y OR FIND a POT - of gold. -

Photocopy from the
Maryknoll Mission Archives
May not be reproduced
without permission

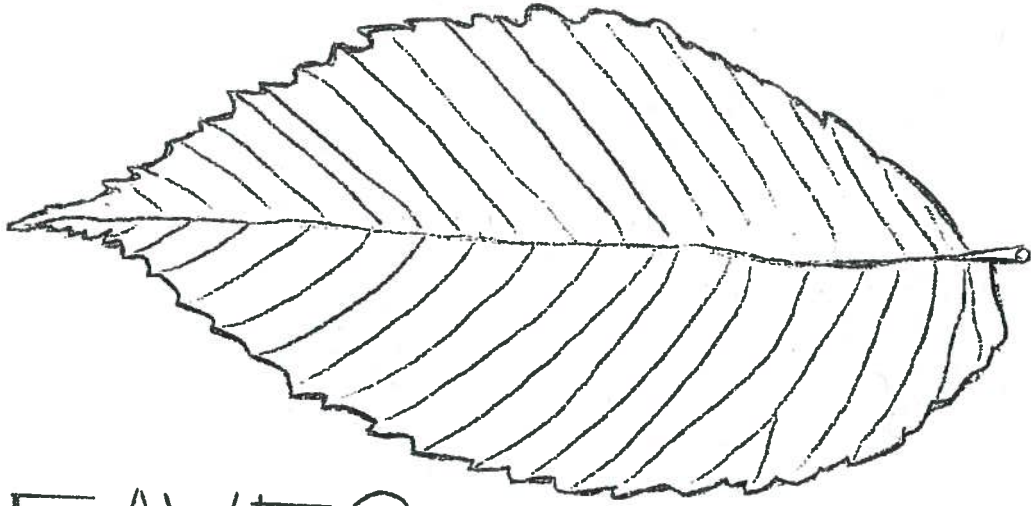
Photocopy from the
Maryknoll Mission Archives
May not be reproduced
without permission



FRUITS AND SEEDS



Photocopy from the
Archdiocese Mission Archives
which may not be reproduced
without permission



LEAVES

