

## TEACHER MATERIALS - Chocolate

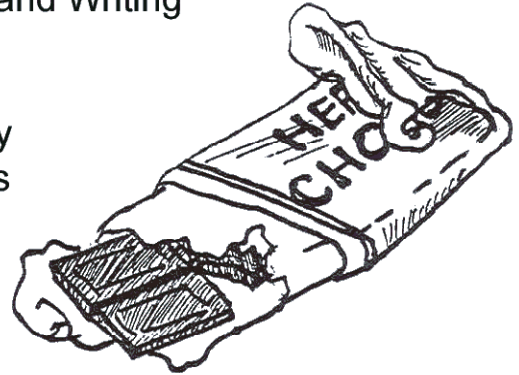
### CONCEPTS:

#### ELA

- Standard 1.1- Listening and Reading
- Standard 1.2- Speaking and Writing
- Standard 2.2- Speaking and Writing

#### Social Studies

- Standard 3.1- Geography
- Standard 4.1- Economics



- OBJECTIVES:**
1. The students will be able to arrange completed sentences in a sequence to show a logical story progression.
  2. The students will be able to generate complete, punctuated sentences summarizing a story they have read.
  3. The students will use sensory terms to describe a common object.
  4. The students will understand where chocolate comes from and how it is produced.

**BACKGROUND:** Chocolate and cocoa are common ingredients in many products we use every day. However, the production and processing involved in making these products are more complex than most of us realize. The information contained in the story provides a

background on cacao production in the tropics and continues through the making of chocolate and cocoa.

- ACTIVITIES:**
1. Read "The History of Chocolate" to the class as an introduction to these activities.
    - 2a. Have the students read pages 8 through 11 in "The Source"
      - b. or read it aloud to the class. Discuss the main points of cacao production and chocolate making as a class to help them review the information.
    - 3a. Have the students complete the Chocolate Bar-ograms by cutting out each bar and assembling the words into a sentence.
      - b. Have the students make their own book of chocolate by cutting out and arranging the chocolate bar sentences chronologically to create their own "Story of Chocolate."
  4. Make a classroom bulletin board display using the chocolate bar story and pictures of chocolate products drawn or colored by students.
  5. Bring in a bag of miniature chocolate bars and give one to each student. If you have any students who are allergic to chocolate substitute carob. Have students use sensory words to write a paragraph describing the chocolate bar. Save the "taste" description for last.
  6. Have the students make their own "chocolate" folder using brown construction paper. In this, place these activities and the following Math lesson.
  7. Have the students complete the language puzzle activity and corresponding Math "chocolate" lessons as well as the chocolate puzzle in "The Source."

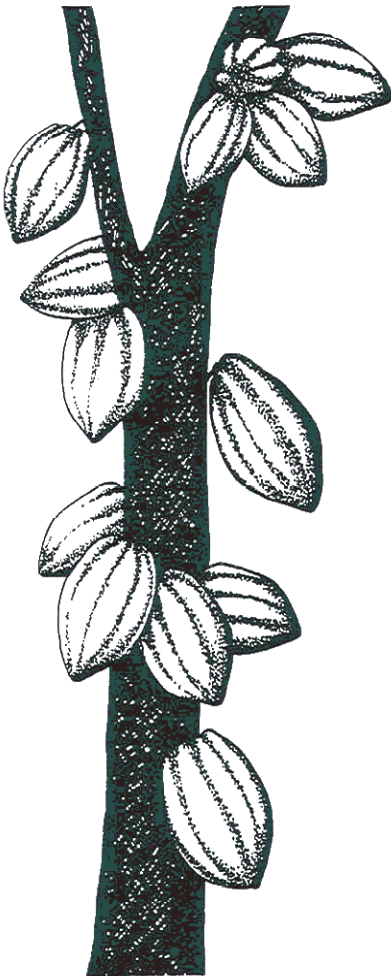
- Utilize the art work on pages 2-15 through 2-25 to decorate a bulletin board made of the student's Barogram sentences.

### SENTENCES:

Chocolate and cocoa come from the cacao tree.  
Cacao trees have fruit called pods.  
Each pod has cocoa beans or seeds inside.  
The pods are opened to get the beans.  
The beans are cleaned, roasted, and crushed.  
Crushing turns the seeds into a thick liquor.  
Sugar and vanilla are added to the liquor.  
Sweet chocolate forms as the liquor cools.  
When milk is added, you get milk chocolate.

### ADDITIONAL RESOURCES:

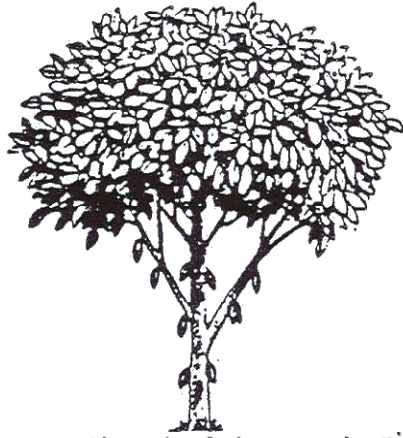
Charlie and the Chocolate Factory, by Roald Dahl  
Chocolate Fever, by Robert Kimmel Smith  
The Chocolate Chip Cookie Contest, by Barbara Douglass  
The Chocolate Touch, by Patrick Skene Catling



## Information

Both cocoa and chocolate come from the cacao tree.

(#1)



This latin name means "food of the gods." It is believed that the cacao tree was first grown in the Amazon region of South America. (Find South America and the Amazon on a map or globe.)

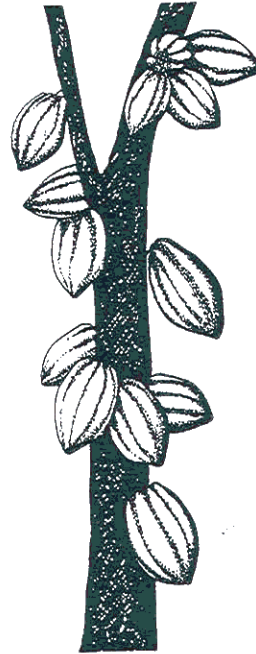


The cacao tree needs very hot and wet weather all year round. Can it grow here? Why not? (Winter) It needs to live in a climate where there is no danger of frost and a very long growing season. The warm parts of the United States do experience frost and hard freezes. It grows in South America and Africa today. (Point it out on the map or globe in the booklet.... note the equator.)

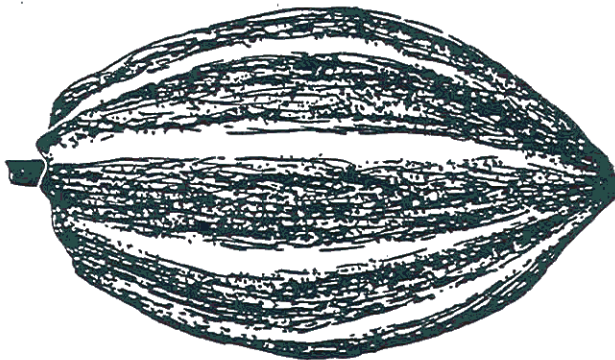
In the right weather it takes about four months for the seed pods to grow and make cocoa beans. (When is four months from today?)



The fruit of this tree is a pod. These pods grow from the tree trunk.  
(#2)

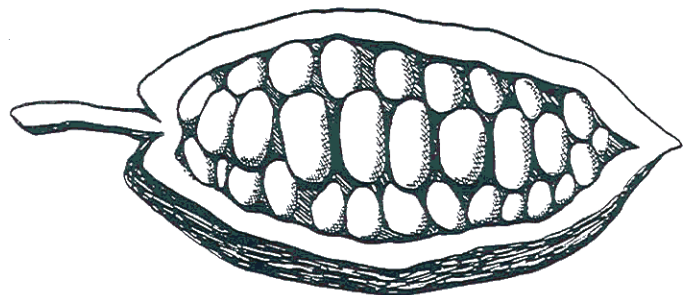


The cocoa beans are seeds that (#3)  
grow inside very hard pods on the tree.

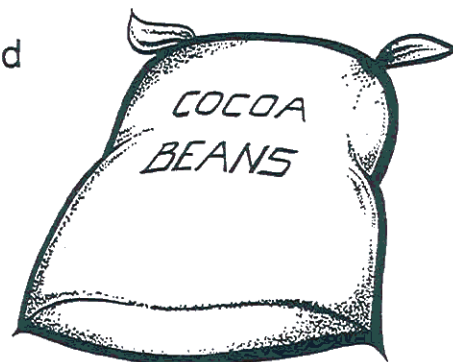


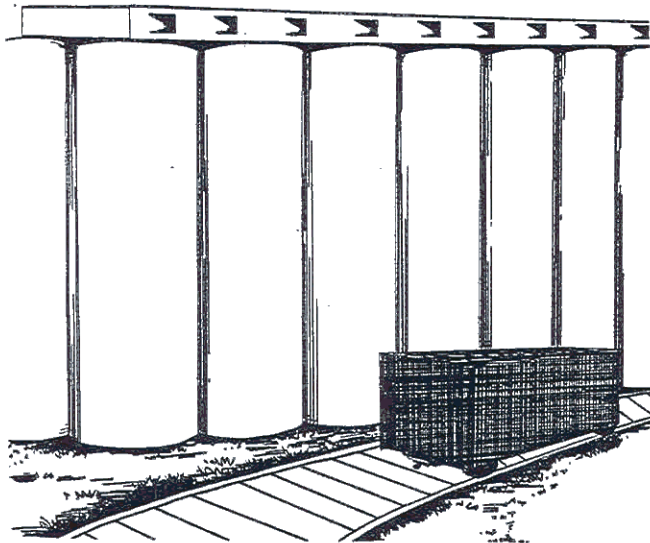
When the pods are ripe, they are picked and cut open. There are 20 to 50 beans inside surrounded by a milky white pulp.

(#4)



The beans are separated, fermented, and dried in the sun. They dry for a few days and are put into big sacks. These sacks go to factories in the United States for processing.





At the factory the beans are stored in large buildings called silos.

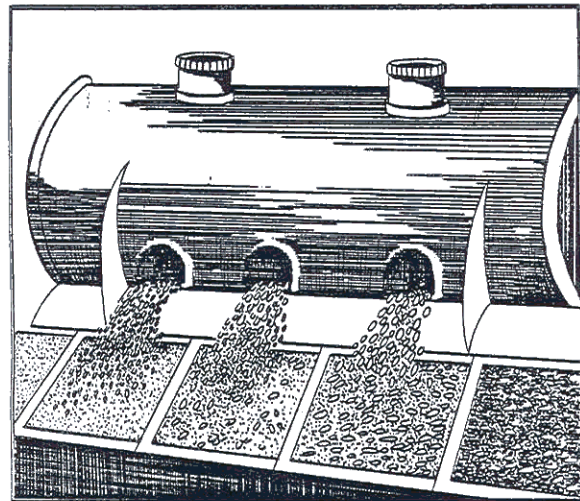
Next, the beans are cleaned, roasted, and crushed.

(#5)

Crushing the center of the bean makes a thick liquid. This liquid is called chocolate liquor.

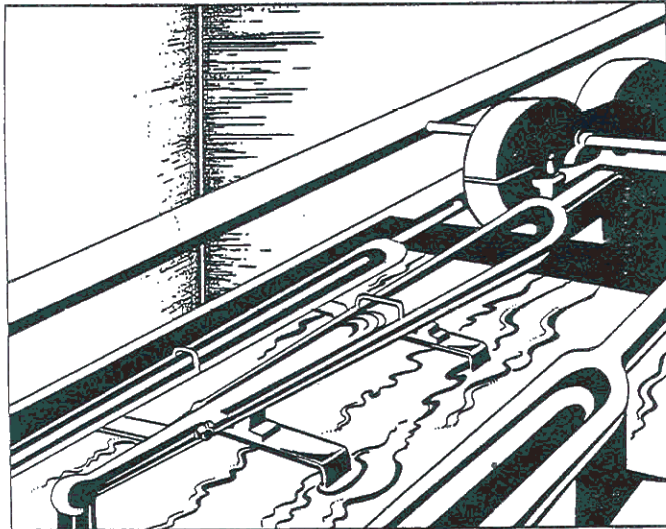
(#6)

Sugar and vanilla are added to the liquor. (#7)



As the liquor cools, it makes sweet chocolate. (#8)

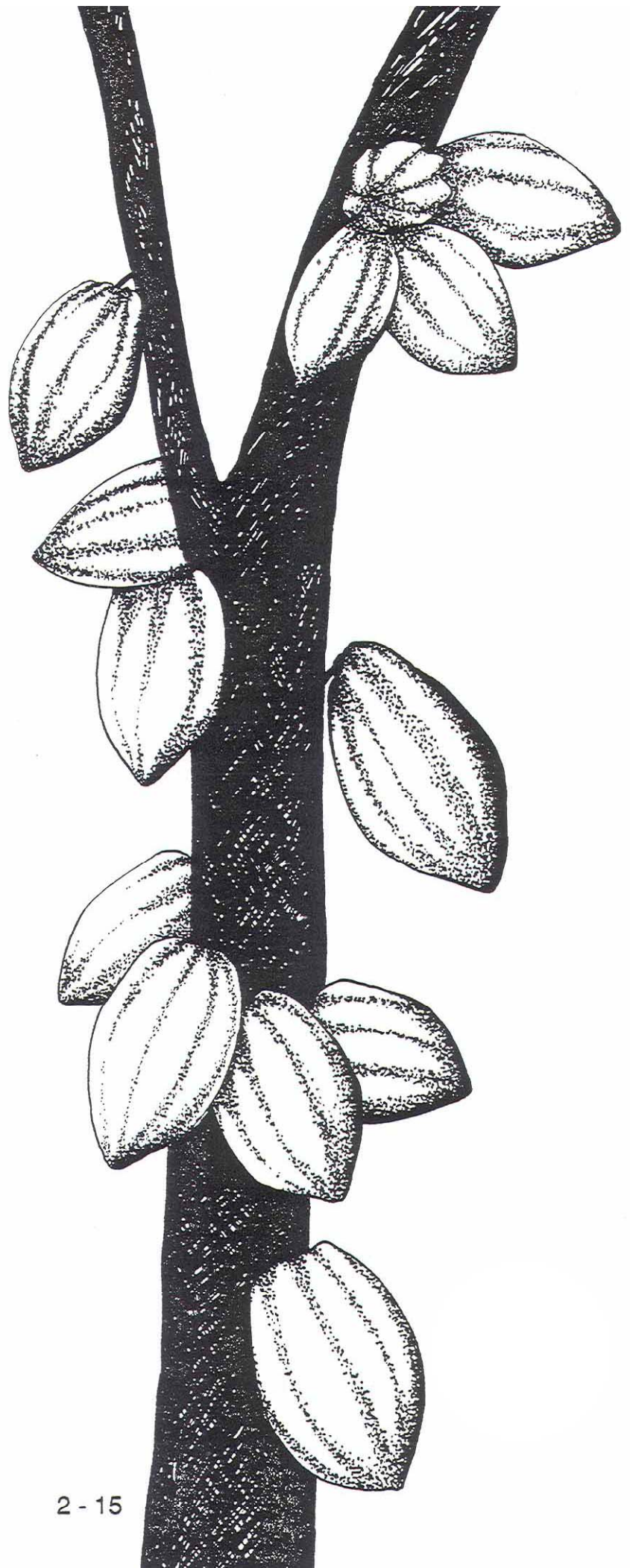
This mixture is pressed between rollers, called conches, until it is smooth.



When milk is added, you get milk chocolate. (#9)

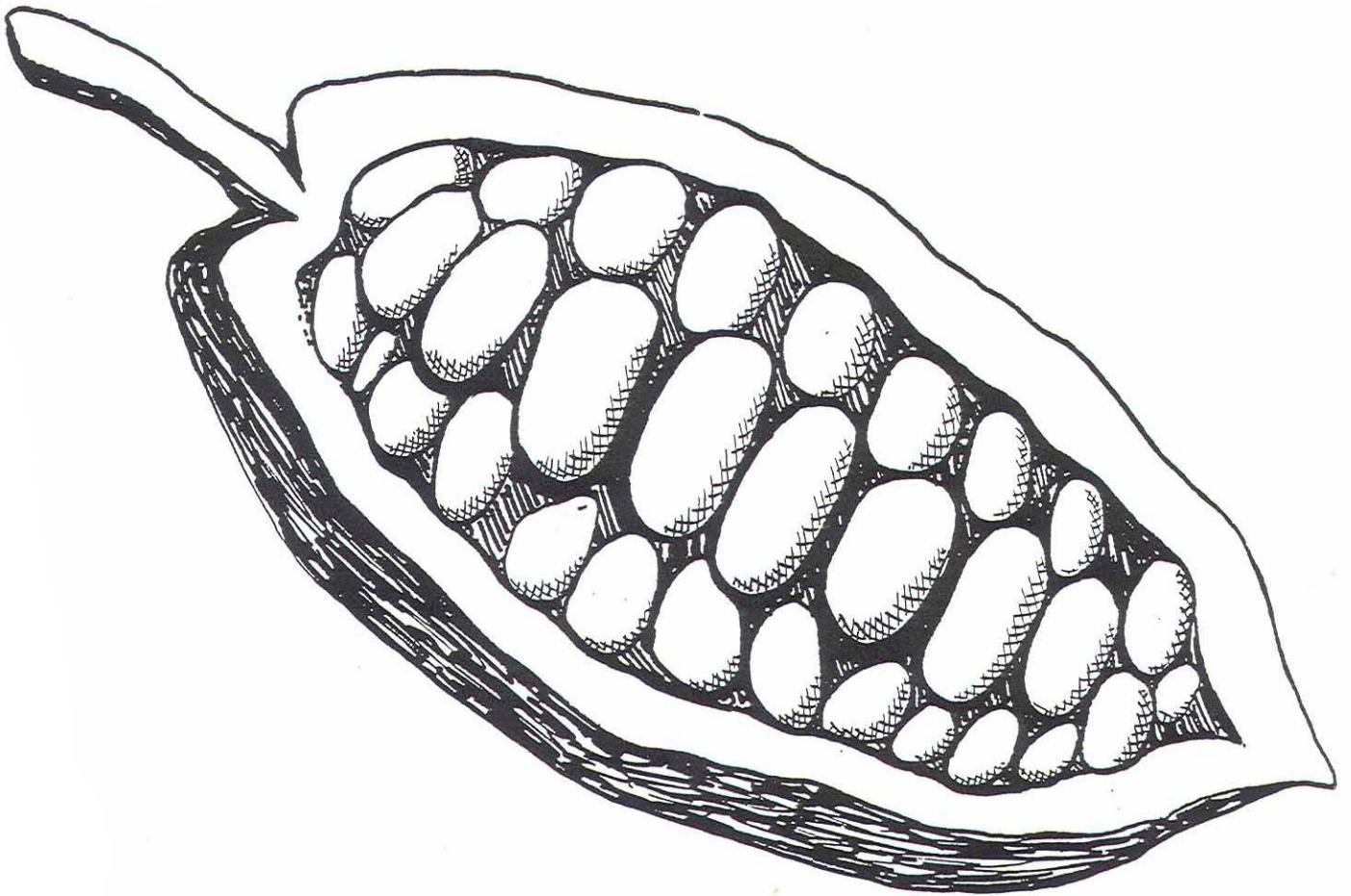
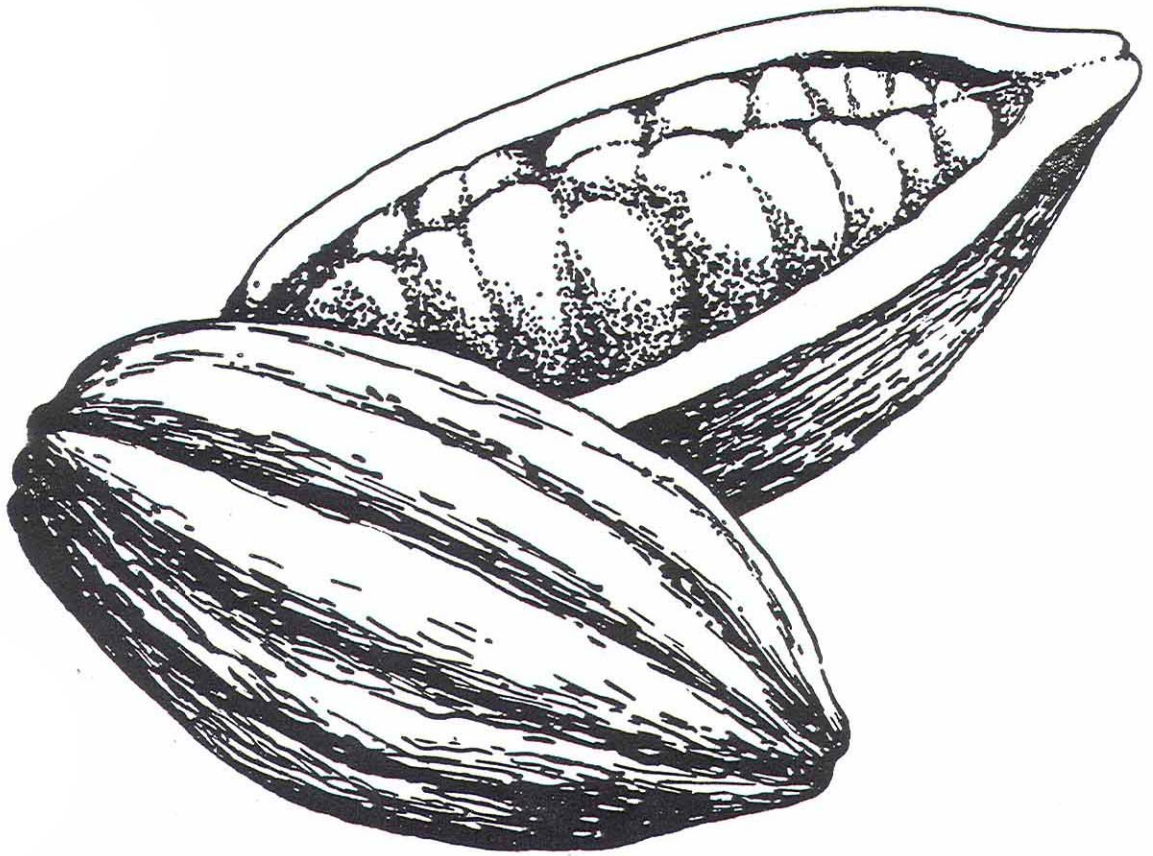


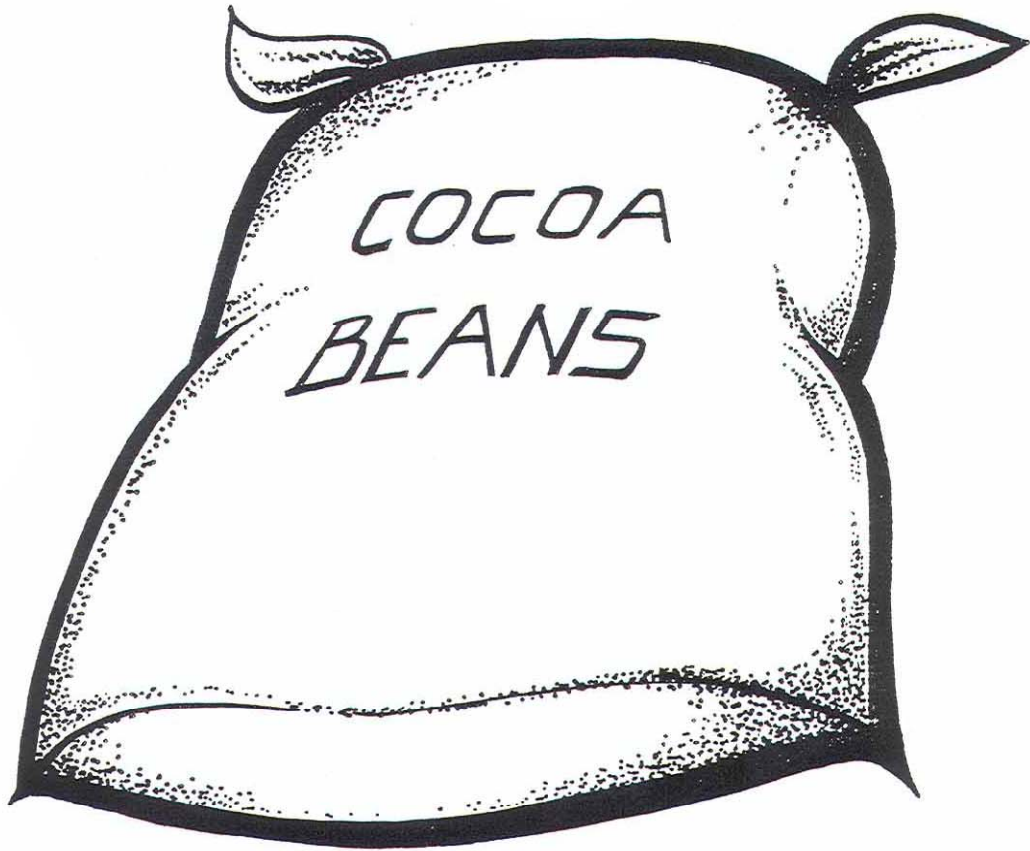




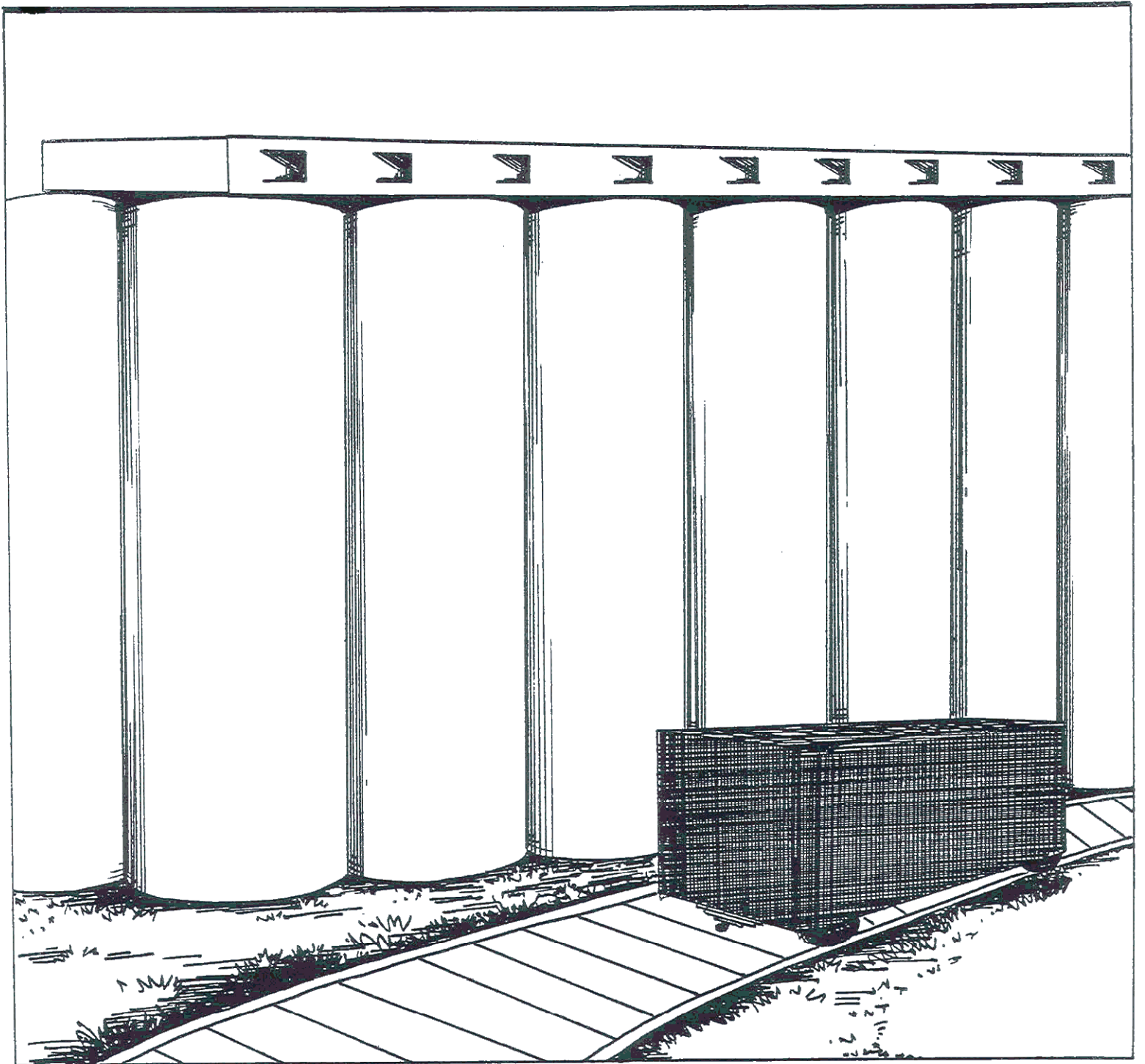




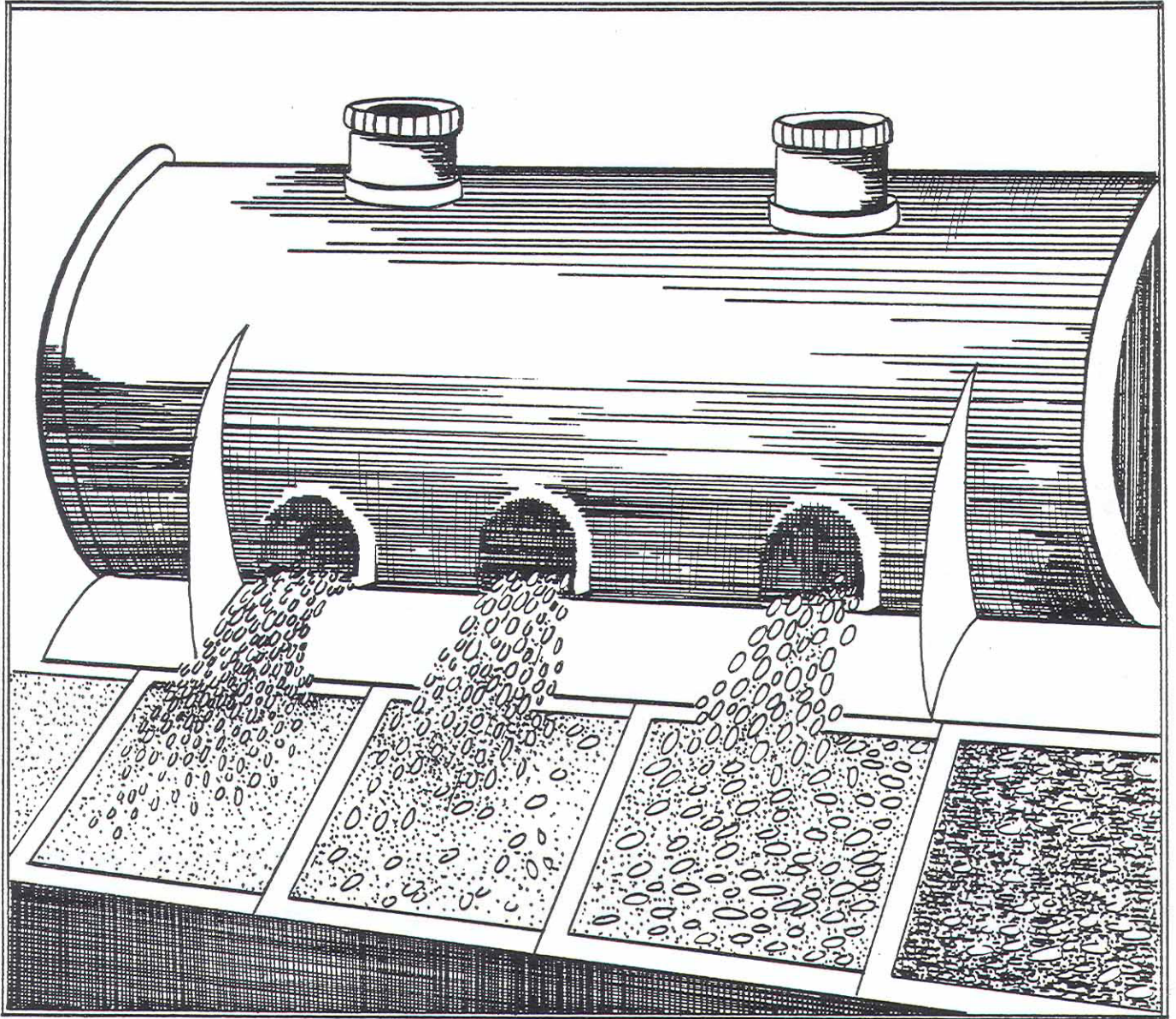






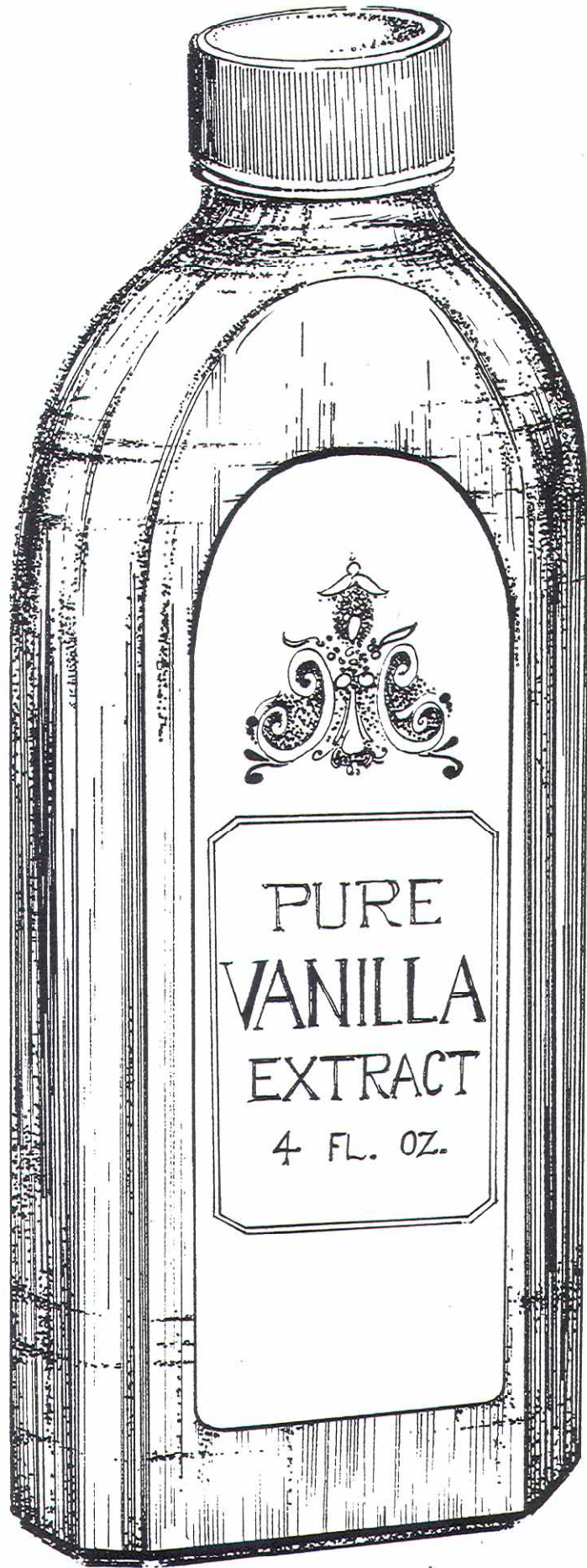


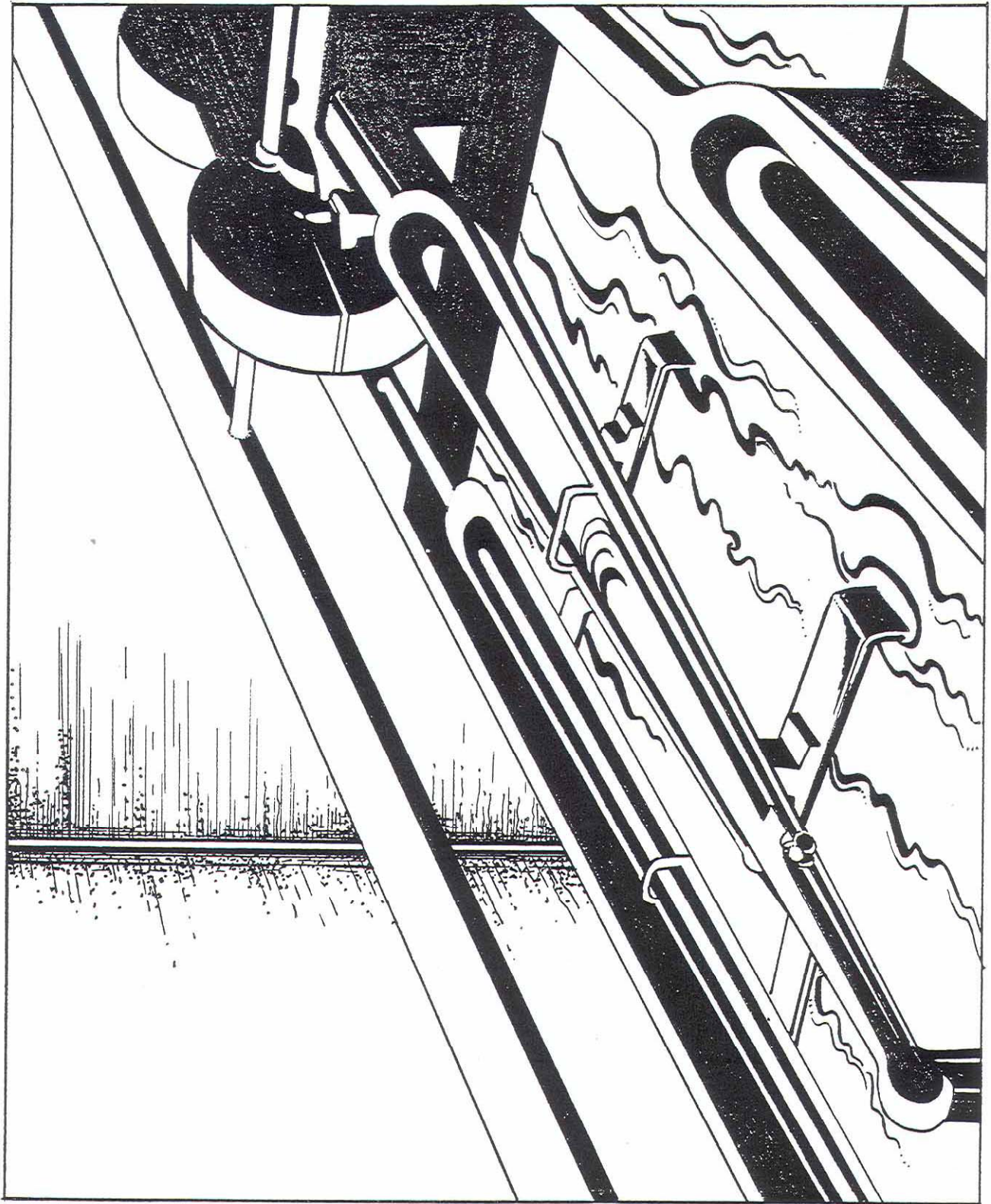




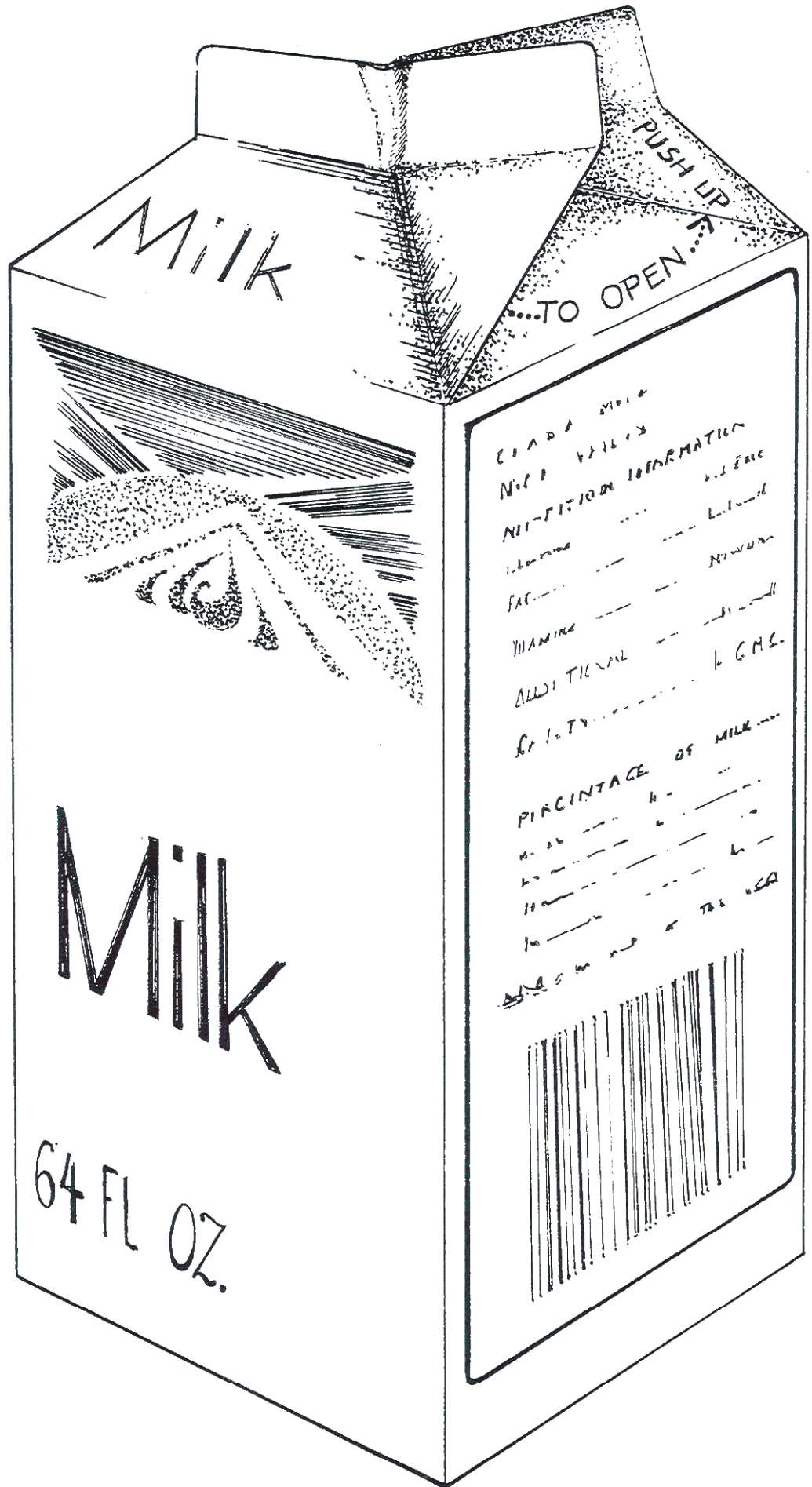


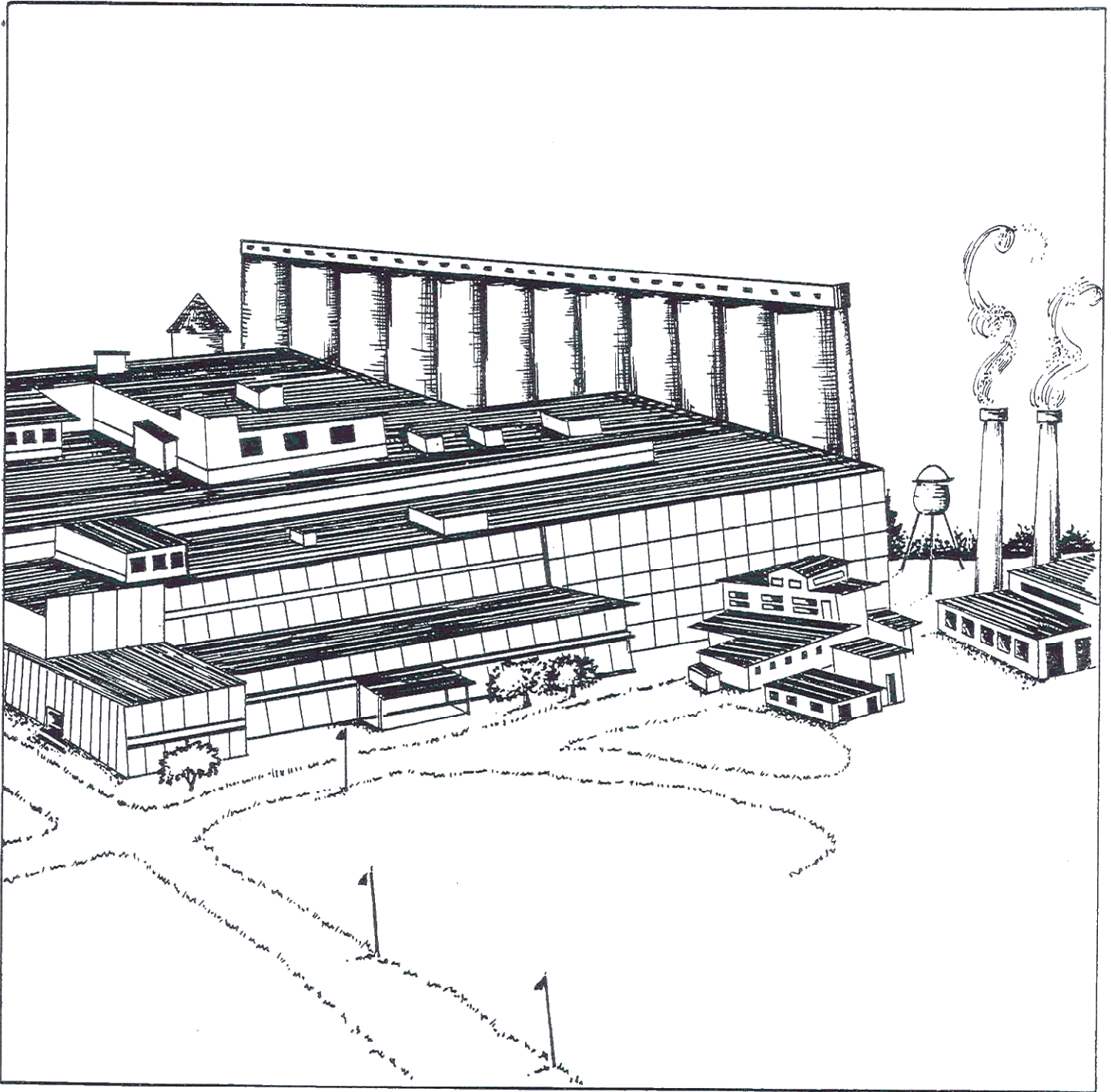












# Vocabulary

- cacao - (ke - ka' o' or ke - ka' - o)  
- an evergreen tropical tree from South America;  
- the seed of the cacao tree is used to make chocolate, cocoa and cocoa butter.
- cocoa - (ko' - k' o)  
- the powder made from the seeds of the cacao tree after they have been roasted, ground, and freed from their fatty oil;  
- a beverage made from mixing this powder with sugar and milk.
- conches - (con' - chez)  
- machines which mix sweet chocolate until smooth.
- silo - (si' - lo)  
- Tall, slender buildings, shaped as cylinders, which store foods and feeds of all sorts.

## The History of Chocolate

In 1494, Columbus returned to Spain from one of his voyages to the West Indies with cocoa beans. Columbus described the cacao tree as a strange tree with large branches that seemed to burst open with patches of small pink flowers. Stemless flowers popped out of the bark and grew into melon shaped pods. The pods could be green, red, yellow, or purple. Inside the pods were seeds which were brewed into a drink. Spain was not impressed with these bitter seeds; the people were too amazed with other food treasures--corn, beans, squash, and peanuts.

Twenty-five years later Aztec Chief, Montezuma, served chocolate and cocoa to another Spanish explorer, Hernando Cortes. An unsweetened drink, cacaoquahitl (made by boiling cocoa beans in water), was disliked by Cortes until they realized that it was refreshing in the hot, humid tropics. A second drink, chocolatl, was sweet and the Spanish enjoyed it. Before long, the explorers learned the secrets of making the drink, collected beans for shipment, and returned to Spain. The sweet chocolate drink was a hit in Spain and the chocolate trade started.

For over 100 years Spain controlled the cocoa supply from America and the recipes for using the beans. The recipes Cortes stole from the Aztec were stolen from the Spanish by the French and Italian. After Princess Maria Teresa of Spain married Louis XIV of France, chocolate became the rage. "Chocolate Houses" sprang up in France, Austria, and Italy but prices were very high. By 1660, Chocolate Houses moved to England and now prices were affordable to everyone.

In 1876, a Swiss man, M.D. Peters, developed milk chocolate. For the first time chocolate was eaten as a solid. The demand for chocolate skyrocketed. People loved milk chocolate. Cacao trees were planted in tropical areas of Colonial Africa. By 1925, three countries in Africa produced two-thirds of the worlds cacao bean crop.

Today, .... Africa produces two billion pounds of cocoa beans grown on small, two to three acre plantings.

For all today's modern machines, the process of making cacao pods into chocolate is the same as it was in Montezuma's time.

Today, chocolate is now said to be the most valuable tree crop in the world. As a beverage, only coffee and tea are sold more often.



Name \_\_\_\_\_

Cut out the candy bar words below, put them in the right order to make a sentence and paste them on your own paper.

cacao	Chocolate	tree.	and
from	cocoa	the	come

trees	Pods.	called	Cacao
fruit	have		

beans	seeds	has	or
Each	cocoa	pod	inside.

Name \_\_\_\_\_

Cut out the candy bar words below, put them in the right order to make a sentence and paste them on your own paper.

pods	opened	get	The
the	are	beans.	to

cleaned,	The	beans	
roasted	are	crushed.	and

turns	the	Crushing	into
a	thick	seeds	liquor.



Name \_\_\_\_\_

Cut out the candy bar words below, put them in the right order to make a sentence and paste them on your own paper. Now put the sentences in the correct order to make a story.

and	vanilla	liquor.	to
Sugar	are	the	added

cools.	as	Sweet	the
chocolate	liquor	forms	

When	is	you	chocolate.
added,	get	milk	milk