

**Alabama Department of Public Health**  
**Mother's Milk Education Package for Grades K-12**  
**Level: 4**  
Adapted from New York State Department of Health

**IT'S ALL IN THERE**

**LEARNING OBJECTIVE FOR LEVEL 4**

Students will be able to understand that for a number of reasons, mother's milk is more beneficial than human milk substitutes.

**SCIENCE CONTENT STANDARD:**

5. Describe the interdependence of plants and animals.
- Tracing the flow of energy through a food chain
  - Identifying characteristics of organisms, including growth and development, reproduction, acquisition and use of energy and response to the environment.

**HEALTH CONTENT STANDARDS:**

2. Complete activities or projects related to school and community health advocacy.  
4. Identify health-related messages found in media advertising.

**SOCIAL STUDIES CONTENT STANDARD:**

10. Describe significant social and educational changes in Alabama during the late nineteenth and early twentieth centuries.

**Using IT'S ALL IN THERE**

In this unit, students take an in-depth look at the benefits of mother's milk. Students will begin to weigh the advantages and benefits breastfeeding has to the mother as well as the newborn, they will:

- become "carriers of information" to others making infant feeding decisions;
- understand and be supportive of a parent or other adult who has made a decision to provide mother's milk; and
- begin to form their own ideas and attitudes about breastfeeding that they will carry with them into adulthood

In Lessons 1 and 2, students examine the benefits of mother's milk, and identify risks of mother's milk substitutes. In Lessons 3, pressures in our society that influence the decision to breast or bottle-feed will be discussed.

**Resources for Level 4**

Pamphlets on mother's milk from local sources including:

- pediatrician, obstetrician, family physician, childbirth educator
- WIC program and/ or health department
- International Lactation Consultation Association: Position paper on Hazards of Infant Formula
- La Leche League brochures

*Nutrition of Infancy & Children*, 54th ed., St. Louis, Mo (Times/Mirror/Mosby College Publishing, 1989).

*Child of Mine: Feeding With Love & Good Sense*, by Ellyn Satter, (Bull Publishing Co., 1986).

**Points to Remember Before You Start:**

Nutritionally, mother's milk is best for almost all newborn infants. It contains the right balance of nutrients, some (mostly minerals) of which cannot be found in commercial formulas. Mother's milk also offers disease-preventing antibodies. Babies who are breastfed generally have less diarrhea and fewer respiratory infections and colds. Babies are not allergic to human milk but some babies can be allergic to formula.

Commercial formulas are the substitute for mother's milk. These formulas can be very expensive, and more difficult to prepare (mix, heat, etc.).

This unit explores the reasons women and men make decisions about the way they will feed their child.

**Lesson 1      YOUR BEST BET**

**Concept:** The student will understand that there are two ways to feed an infant, breastfeed and bottle feed

**Vocabulary Words**

*advantage:* a favorable circumstance

*benefit:* helpful

*risk:* harmful

*formula:* a commercial product made of a combination of chemicals, milk and/or non-milk products

**Advance Preparation**

- Read a pamphlet or book from resource list to become familiar with the benefits of mother's milk.
- Blackboard/Newsprint

**ACTIVITIE:**

Review information students have learned in earlier lessons *Levels K-3* (i.e. mammals nurse their young).

Ask students to give some reasons mothers may choose to nurse (breastfeed) their baby.

On the board, have students brainstorm benefits of nursing (breastfeeding) a baby.

- ideal nutrients for baby
- easier to digest
- cost less
- no mixing or heating bottles, etc.

Have students state reasons given for not of breastfeeding.

- not enough time
- harder for someone else to feed baby, etc.

Have students brainstorm a similar list of benefits and risks of bottle-feeding with commercial formula.

Review the two lists with the whole class. Divide students into small groups of 3-4 and develop consensus on which is best, breastfeeding or formula feeding. Assign someone in the small group to record major points of their discussion and report back to the class how consensus was

reached. Also include a description of how the group came to their conclusion. Did any groups feel they did not have enough information to make to a decision? Where could they get additional information?

### **Evaluation**

Have students tell a partner one benefit of breastfeeding and have their partner respond with one risk of bottle-feeding.

## **Lesson 2 NO MATCH FOR MOTHER'S MILK**

**Concept:** There are both advantages and benefits mother's milk and risks to substitutes.

### **ACTIVITIES:**

- Invite a pediatrician, family physician or lactation nurse to talk to the class about the immunological properties of mother's milk. Have students prepare questions in advance to ask the guest speaker.
  1. Are there common ailments that can be prevented?
  2. Can drugs the mother is using be passed to infant also? Etc.
- Have students research the amount of formula a newborn to 1 month old and a 6-month-old infant would require. Have students compute the number of cans of formula used by the infant during the 6-month period.
  1. How much does each can cost?
  2. How much would it cost for formula to feed a baby for 6 months?
- A breastfeeding mother needs about 500 additional calories from each day (about \$1.00 - \$2.00 worth). Find out how much money could be saved by providing mother's milk instead of formula feeding.
- Have student research some substitutes to mother's milk. Provide different kinds of milks to be sampled by the class.
  - 1%, 2%, whole and skim milk
  - goat milk
  - store bought baby formula
  - milk based and soy based
  - soy milk
  - an equal mixture of sweetened condensed milk & whole milk for mock mother's milk

Have students look, smell, pour and taste the milks if possible.

### **Evaluation:**

Have students write a letter to an imaginary mother explaining why providing mother's milk would be a positive option for her to consider. Be sure to include all the ways breastfeeding would benefit her and her baby.

## **Lesson 3 FEEL THE PRESSURE**

**Concept:** There are many factors that influence the choices parents make about feeding their infant.

### **Vocabulary Words**

*pasteurization:* a method of destroying bacteria in milk by a special heating process.

*sterilization:* a process of removing and/or destroying all organisms from a product

### **Advance Preparation**

- Secure magazines, some old if possible (check the library) for student use.
- Copy Worksheet "Infant Feeding Survey."

### **ACTIVITIES:**

Review with students benefits of breastfeeding vs. formula feeding or brainstorm a new list. Have students discuss: given the "facts" on the board about mother's milk vs. formula, which based on benefits alone would be best? Ask students, then why would a woman choose not to breastfeed? Allow time for brainstorming of some possible reasons:

- friends/spouse against it.
- media promotes formula, etc.

Distribute Worksheet "Infant Feeding Survey." Instruct students to survey at least one woman, for each of the following age groups.

1. under 25 years old
2. 25-40 years old
3. 40-60 years old
4. over 60 years old

Have students discuss and graph answers to survey. What happened around 1940 that made changes in the way babies were fed?

- refrigeration
- pasteurization
- development of infant formulas

What were the most common reason women chose not to provide their milk for their baby?

### **Activities**

- Have students design a poster or TV commercial showing the benefits of breastfeeding. This can be used as an individual or group project. You may also want to share the project with the local WIC program, or Health Department.
- Invite a pediatric nurse or OB nurse to the class to talk about some of the things they do in the hospital to promote breastfeeding as a positive option for feeding the newborn.
- Have students look through magazines of different eras. How is infant feeding portrayed? Do they find more formula ads in newer magazines? What year do formula ads begin showing up? Why?

### **Evaluation**

Have each student list 5 advantage of mother's milk and 5 disadvantage of infant formula.

## Infant Feeding Survey

Name: \_\_\_\_\_

	Age Group	Breast or Bottle	Why? What influenced her decision?
1.	Under 25		
2.	25-40		
3.	40-60		
4.	Over 60		