

**Alabama Department of Public Health**  
**Mother's Milk Education Package for Grades K-12**  
**Level: 9-12**  
Adapted from New York Department of Health

**MOTHER'S MILK IS BEST**

**LEARNING OBJECTIVE FOR LEVELS 9-12**

Students will describe why mother's milk is the optimal form of nutrition for humans.

**SCIENCE CONTENT STANDARDS:**

**BIOLOGY CORE**

5. Identify cells, tissues, organs, organ systems, organisms, populations, communities and ecosystems as levels of organization in the biosphere.
6. Describe the roles of mitotic and meiotic divisions during reproduction, growth and repair of cells.
11. Classify animals according to type of skeletal structure, method of fertilization and reproduction, body symmetry, body coverings and locomotion.

**HUMAN ANATOMY AND PHYSIOLOGY CORE**

12. Identify structures and functions of the reproductive system.

**HEALTH CONTENT STANDARDS:**

4. Analyze cultural influences on health behaviors, including social norms, laws and regulation, family traditions and stereotypes.
5. Differentiate between positive and negative health messages portrayed in the media.
9. Explain the impact of personal health behaviors on parenting and child development, including attending to financial responsibilities associated with pregnancy, childbirth and childrearing.

**SOCIAL STUDIES CONTENT STANDARDS:**

**ELEVENTH GRADE HISTORY**

7. Describe consequences of World War II on the lives of American citizens

**TWELVETH GRADE ECONOMICS**

1. Explain the role of scarcity in answering the basic economic questions of what, how, how much and for whom to produce.
2. Compare the development and characteristics of the world's traditional, command, and market economics.

Example: Comparing costs and benefits of economic growth.

**FAMILY AND CONSUMER SCIENCE CONTENT STANDARDS:**

**FAMILY DYNAMICS**

1. Compare the stages of the life span
2. Analyze issues that influence family life across the life span.
3. Utilize the decision-making process to meet the needs and wants of the family across the life span.
10. Evaluate how the demands in the home, workplace and community impact the family.
11. Analyze food habits of family members across the life span.
28. Determine how parents meet a child's physical, mental, emotional and social needs.

**PARENT AND CHILD DEVELOPMENT**

1. Analyze roles and responsibilities of parenting across the life span.
6. Determine the care necessary for expectant mother and unborn child.

- 8. Assess postnatal care of the mother and infant.
- 10. Utilize strategies to balance work, family life and parenting responsibilities.
- 15. Analyze ways to protect children from disease and illness.
- 24. Demonstrate parenting practices that maximize human growth and development.
- 27. Compare types, causes and prevention of child abuse.
- 29. Compare agencies, services, resources and support systems available to meet the needs of parents and children.

#### **CHILD DEVELOPMENT**

- 1. Evaluate factors that influence growth and development of children.
- 4. Analyze common childhood diseases, symptoms and methods of prevention and care.
- 6. Plan nutritious meals and snacks to enhance child growth and development.
- 29. Compare agencies, services, resources and support systems available to meet the needs of parents and children.

#### **HUMAN DYNAMICS**

- 1. Compare the basic needs of human beings.
- 2. Analyze conditions that influence growth and development.
- 15. Contrast the challenges and rewards of intergenerational living.
- 18. Analyze community resources and services available for meeting the needs of individuals across the life span.

#### **FAMILY WELLNESS**

- 3. Develop an individual health plan that includes all dimensions of health and wellness.
- 6. Assess ways significant events impact the physical, emotional and, mental health of individuals and families.
- 8. Assess ways an individual's and family's health behaviors influence family life, parenting and child development.
- 9. Assess positive health actions for parenting and child development.
- 10. Demonstrate individual and family health practices that reduce health risks and enhance health and wellness from a personal health assessment.
- 26. Describe ways individual health behaviors may affect the body's biological systems.
- 29. Examine health practices to be considered before, during and after pregnancy.
- 38. Evaluate the positive and negative health messages portrayed by the media.
- 39. Assess the validity of health information, products and services used by individuals and families in making health care decisions.
- 44. Demonstrate how individuals and families can be advocates for good health practices in homes, schools and communities.
- 45. Develop a wellness initiative that impacts individuals or families
- 47. Demonstrate ways to provide community service through health-related advocacy projects.

#### **FOOD DYNAMICS**

- 4. Evaluate the nutritional needs of individuals and families across the life span.
- 5. Design strategies to meet the health, fitness and nutrition requirement of individuals and families.

#### **Using MOTHER'S MILK IS BEST**

Mother's Milk is Best examines cultural attitudes relating to breastfeeding locally, nationally, and on a worldwide basis. Breastfeeding is the "norm" in many countries yet it continually needs to be promoted. There are many factors that can cause a woman to give up on breastfeeding or to avoid the experience altogether.

Lesson 1 examines disadvantages and advantages of breastfeeding in developing countries. Students are also required to examine personal attitudes as well as those within their own families.

Lesson 2 recognizes that there are many factors that lead a person to choose breastfeeding versus formula feeding. Social factors can enhance or inhibit one's decision to breastfeed, as can the nutritional, health, economic, and political implications of breastfeeding. Women going into the workforce during WWII caused a significant increase in the use of mother's milk substitutes.

Lesson 3 looks at breastfeeding basics such as how do you hold the baby, how do you know you are producing enough milk, how do you eat properly, etc. This final unit promotes a real understanding of the "how-to's" of breastfeeding.

### **Before You Start:**

This unit is a culmination of all the previous lessons on mother's milk. It will be helpful if you review the previous lessons to determine if you want to include some activities from earlier lessons. This unit is very specific in order to help students truly feel knowledgeable and skillful. Included in these lessons are ways to reach out to the community at large to further promote breastfeeding and to break down some of the barriers that may exist which negatively influence a woman's choice regarding breastfeeding. Through this community involvement, students can develop positive attitudes related to breastfeeding and influence others to be accepting of breastfeeding. Hopefully, mothers and mothers-to-be will be influenced to choose breastfeeding, to continue to do so for an increased duration, and to effectively bring about change to increase sensitivity towards the promotion of breastfeeding at home, school, or in the workplace.

### **Resources for Mother's Milk is Best**

#### **Books**

*Breastfeeding: Your guide to a health, happy baby.* Third Edition. Amy Spangler. (770-913-9332; [www.daddymommyandme.com](http://www.daddymommyandme.com))

*Reclaiming Breastfeeding for the United States.* Edited by Karin Caldwell and Cindy-Turner Maffei, La Leche League (847-519-9585; [www.lalecheleague.org](http://www.lalecheleague.org))

*Selling Out Mothers and Babies.* Marsha Walker, RN, LLL (see above contact info.)

*So That's What They're For! Breastfeeding Basics.* Janet Tamaro, Second Edition, LLLC (see contact info above)

#### **CD-ROM**

*Healthy You, Healthy Baby,* March of Dimes, Atlanta, GA, 800-367-6630.  
[www.marchofdimes.com](http://www.marchofdimes.com)

#### **Pamphlets**

"*Breastfeeding Makes a Difference*", LLLI

"*Breastfeeding & Sexuality*", LLLI

### **Lesson 1      AROUNDTHEWORLD**

**Concept:** Breastmilk is the optimal food for infants.

#### **Advance Preparation**

- Call a local WIC agency for some statistics on breastfeeding.
- Choose countries for a mini-research assignment.

- Photocopy "My Attitudes About Breastfeeding".
- Provide reference copies of *Reclaiming Breastfeeding for the United States*, and *Selling Out Mothers and Babies* from La Leche League.
- Research the effect of WWII on women's decision not to breastfeed.

### ACTIVITIES

- Have each student go home and ask if (s) he was breastfed or formula fed. Find out if parents were breast or formula fed. Make a graph with results. Was breastfeeding more popular among the students (when they were infants) or the adults (when they were infants)?
- Contact a local WIC agency to ask if they have share statistics on breastfeeding among other cultures? Other countries? Is breastfeeding on the rise or decline? Have the numbers of mothers choosing breastfeeding increased or decreased over the years?
- List some advantages of breastfeeding in developing countries:
  1. always the right temperature; does not need to be heated
  2. sanitation is sometimes poor; breastmilk does not need to be mixed with water
  3. it can help space pregnancies cutting down on over-population (not 100 percent reliable contraception especially when other foods are given to baby)
  4. breastfed babies are less likely to get diarrhea or respiratory illness
  5. breastmilk (even among malnourished mothers) is more likely to help a baby achieve normal weight for age
- List some possible dangers that formula feeding may create in developing countries.
  1. There is a lack of cleanliness and clean water. Infection may be given to baby from unclean bottles as well as from germs in the water that is mixed with powdered formula.
  2. Many mothers in poor countries cannot read so they may not follow instructions correctly on quantity of powder to use to prepare formula milk.
  3. In addition to not being able to read, poverty may influence a mother to use less formula (powder) in order to save money. The nutritional value of the formula is weakened if exact proportions are not used.
  4. Cost may be a large deterrent to formula feeding. Mother's milk is free.
  5. Refrigeration is a problem in developing countries. Once formula is mixed, there may not be adequate refrigeration to store it properly.
- Cultural beliefs affect peoples' decisions regarding breastfeeding. Assign various countries to students to study the attitude of breastfeeding in countries around the world.
- Pass out the student worksheet, "My Attitudes About Breastfeeding". Allow time for students to read statements and respond. Discussion should follow. (It will probably be a lively debate. Allow for individual differences and help students find ways to accept differences.)

### Evaluation

Have students can write an essay supporting breastfeeding. Include barriers to successful breastfeeding.

### Lesson 2 SO MANY DECISIONS

**Concept:** Choosing to breastfeed is a decision that has social, economic, nutritional, and health implications.

## Advance Preparation

- Call a WIC nutritionist to determine an average amount of formula consumption per day for a 1-3 month old infant.
- Borrow a breast pump (hand or electrical) to demonstrate its use on a breast model from Medela.
- Find formula company websites to obtain free patient education materials.
- Make arrangements for industrial arts/technology department to print a local directory of agencies that help promote/support breastfeeding.
- Photocopy community project list.

## ACTIVITIES

- Have students:
  1. collect pamphlets about breast- and bottle-feeding from doctors, childbirth-educators, WIC agencies, State Departments of Health, La Leche, Cooperative Extension, etc. Distribute pamphlets to students so they can read them. Ask them to list advantages and disadvantages of each. Which had more advantages? Did the advantages outweigh the disadvantages? If you were choosing to nurse a baby, which would you choose and why?
  2. Contact infant formula companies that produce pamphlets on infant nutrition. After reading them over, decide which one gave the most accurate information. Was there a hidden message in the pamphlet? Look at some parenting magazines. Is formula advertised? What message(s) is (are) given?
  3. Calculate the cost of using formula versus breastfeeding for one week, one month, four months, six months, and a year. Is the savings worth considering?
    - Divide students into groups of four or five. Have each group choose one item per group that one might need to purchase for a new baby. Have students:
      1. Do a consumer product comparison and select a particular model.
      2. Defend why a particular model was chosen. Products could include: cribs, strollers, breast pumps, car seat, infant carrier, changing table, etc
    - Bring a breast pump to demonstrate how it works using a breast model (available through Medela). Brainstorm advantages and disadvantages to using a breast pump to express milk. Examine some difficulties women experience if they are attempting to express milk and return to work (unclean facilities, no way to store milk at correct temperature, negative attitude of fellow employees, not enough break time, etc.). Have students answer:
      1. How could some of these difficulties be addressed to help the nursing mom continue breastfeeding while working?
      2. Should employers provide time for employees to continue breastfeeding?
- Have students develop a local directory of organizations that help promote breastfeeding. Use the graphic design classes or use a software program to print a brochure to distribute to obstetricians who can then pass them out to their parents.
- Role play the following scenarios:
  - (A) Maria, age 17, knows that breastmilk would be the best first food for her newborn son José. She wants to breastfeed but worries she will not have time with her busy schedule: school, work, and homework. What advice would you give Maria?
  - (B) Kris was prepared to breastfeed when her baby was born. What she was not prepared for was the lack of support from her mom. Mom felt it was better to formula feed a baby and was putting a lot of pressure on Kris to not breastfeed. What advice would you give Kris?
  - (C) Tom learned about how nutritious breastmilk is for babies. He really wants his wife Sandy to breastfeed their new baby when (s)he arrives. Sandy is planning

to go back to work within eight weeks and does not think it will be useful to breastfeed. What advice would you give Tom and Sandy?

- (D) Tina had a son four months ago. She has returned to work and plans to "pump" or express her milk on her breaks. She must go into the ladies room at work and she feels embarrassed that someone might walk in on her while she is expressing the milk. What advice would you give Tina?

### **Evaluation**

Have students choose one of the following areas to participate in a community effort to promote breastfeeding.

- (a) Survey local pregnant teens regarding their feelings toward breastfeeding. Develop a strategy to help them become more comfortable and accepting of breastfeeding.
- (b) Survey the local hospital(s) education department as it relates to staff promoting breastfeeding and conducting breastfeeding training. Include areas of improvement to increase the number of nursing mothers.
- (c) Involve the student council and school administration in providing programs to meet the needs of pregnant teens. Suggest an atmosphere where a teen would be able to breastfeed her child while she continues her education.
- (d) Create a public service announcement regarding the benefits of breastfeeding.
- (e) Use the internet to study laws regarding breastfeeding. Write a letter to a state legislator that supports breastfeeding in public.

## **Lesson 3      BASICS OF BREASTFEEDING**

**Concept:** It takes time and practice to experience success in breastfeeding.

### **Advance Preparation**

- Order La Leche League resources and WIC educational materials.
- Develop a grading sheet for reports on aspects of breastfeeding.

### **Activities**

Divide students into groups of 2 or 3. Assign a research paper on one topic for each group.

- Students may use library materials, publications distributed by hospitals, and other nutrition-related agencies. Possible topics include:
  - Positions for breastfeeding
  - Recommendations for frequency of feedings
  - Breastmilk: content and quantity
  - Expressing and storing breastmilk
  - Returning to work while continuing breastfeeding
  - Healthful practices for mother while nursing
  - Breastfeeding and contraception effectiveness
  - Weaning a baby
  - "let-down" reflex - what is it?

### **Evaluation**

Using available resources, develop posters/pamphlets to be placed in the waiting rooms of obstetricians and family physicians.

## My Attitudes About Breastfeeding

**Directions:** After reading each statement, circle the number that best agrees with your feelings about that statement.

1 = Strongly agree

3 = Undecided

5 = Disagree

- |     |   |       |
|-----|---|-------|
| 1.  | Breastfeeding is the best food for a baby.  | 1 3 5 |
| 2.  | Breasts are meant for providing milk  | 1 3 5 |
| 3.  | Breasts should be kept covered even during breastfeeding.   | 1 3 5 |
| 4.  | Fathers can assist caring for a breastfeeding baby.   | 1 3 5 |
| 5.  | Workingwomen are able to breastfeed.  | 1 3 5 |
| 6.  | Employers should provide places for women to breastfeed or use breast pump.                         | 1 3 5 |
| 7.  | Employers should encourage their workers to breastfeed.   | 1 3 5 |
| 8.  | Breastfeeding is disgusting.  | 1 3 5 |
| 9.  | The mother should have the primary responsibility to decide whether or not she wants to breastfeed. | 1 3 5 |
| 10. | The father can help his baby by supporting the mother's decision regarding breastfeeding.           | 1 3 5 |

