

On the Moo-o-o-ve with Dairy

Activities for Grades 1 -5

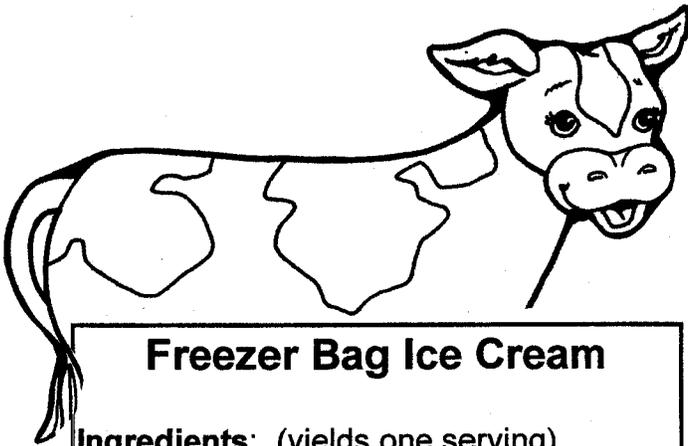


Alabama Agriculture in the Classroom
Summer Institute 2002

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On the Moo-o-o-ve With Delicious Dairy Treats

Children love ice cream and even the youngest student can help create tasty treats with these easy recipes.



Freezer Bag Ice Cream

Ingredients: (yields one serving)

- 1/2 cup half & half
- 1 tablespoon sugar
- 1/4 teaspoon vanilla

Materials: (per student)

- 1 quart ziplock bag
- 1 gallon ziplock bag
- rock salt
- crushed ice

Directions:

1. Mix half & half, sugar, and vanilla in the small bag.
2. Seal bag, removing as much air as possible.
3. Mix 2-3 cups of ice and some rock salt in the large bag.
4. Insert the small bag and seal shut.
5. Knead for 3 to 5 minutes.

Have children wear gloves or mittens for this activity.

Yogurt on a Stick*

Ingredients:

- 1 6oz. can frozen orange or grape juice concentrate
- 1 pt. plain yogurt
- 1 teaspoon vanilla

Supplies:

bowl, spoon, ice cube tray, popsicle sticks

Directions:

1. Mix ingredients until well blended.
2. Pour into ice cube tray and freeze partially.
3. Insert popsicle sticks and freeze solid.
4. Pop out and enjoy!

"Rock & Roll" Ice Cream (makes 3 cups)

Ingredients:

- 2 cups half & half
- 1/2 cup sugar
- 1/2 teaspoon vanilla

Materials:

- 1-1lb coffee can with tight fitting plastic lid
- 1-3lb coffee can with tight fitting plastic lid
- 2 cups rock salt
- crushed ice
- tape

Directions:

1. Mix together ingredients in 1lb coffee can. Secure lid with tape.
2. Place can with ingredients in 3 lb coffee can.
3. Pack crushed ice around the smaller can. Spread 3/4 cup rock salt evenly over the crushed ice.
4. Secure lid of large can with tape.
5. Roll can around for about 10 minutes.
6. Open cans and stir ice cream mixture with spatula. Replace lid and retape. Drain water from larger can, adding more ice and rock salt. Close and tape. **Rock and roll** for about 5 more minutes.
7. Eat and enjoy!

*Thanks to Minnesota AITC and A.W.

Graph It !

Most children enjoy eating ice cream. The following graphing ideas get students thinking about math concepts in a way that is designed to appeal to even the most finicky of palates.

Objective: Students will create bar graphs.
Students will be able to read and interpret a graph.

Our Favorite Ways to Eat Ice Cream (cone, sundae, milkshake, etc.)

Our Favorite Flavors of Ice Cream

Flavors of Ice Cream Preferred by Teachers at Our School

Third Graders' Favorite Milk

(survey students in the lunch line -chocolate, strawberry, white)

Do You Prefer Regular or Soft-Serve Ice Cream?

How Many Glasses of Milk Do You Drink Each Day?

What is Your Favorite Dairy Product?

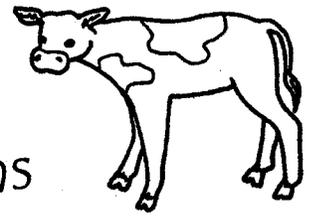
After completing the graph with your students, ask them questions based on the information it contains. Questions might include but are not limited to the following:

NOTE: Fill in the blanks with topics from the completed graph

1. How many students chose _____?
2. How many more students' chose _____ than _____?
3. Which was the favorite choice?
4. Which was the least favorite choice?

The Writing Connection: The Perfect Sundae

1. Work with the class to develop a web of ideas (flavors, textures, smells, tastes, toppings). Record them on the overhead or a large sheet of paper.
2. Direct students to write a rough draft by telling them that they have 15-20 minutes to get their ideas down on paper. Spelling and punctuation will be corrected later.
3. Tell students to look over their completed drafts for spelling, capitalization, and punctuation errors.
4. Pair students for peer-editing. As they read their paragraph to a partner, ask the partner to listen carefully so he/she can provide helpful suggestions.
5. Rewrite, making all necessary corrections and revisions. Illustrate and share.



Some Interesting Cow-culations

Objective: Students will develop critical thinking skills and practice basic math calculations.

The average dairy cow produces 90 glasses of milk each day. To do this, the cow must drink 25.50 gallons of water and eat about 30 pounds of hay daily.

1. Mrs. Knight has 35 cows in the pasture and 28 cows in the barn. How many cows does she have all together?
2. Mr. Fields has 56 cows, 45 calves, and 5 bulls. How many does he have all together?
3. Mr. Smith has 136 cows and Mr. Johnson has 79 cows. How many more cows does Mr. Smith have than Mr. Johnson?
4. Mr. Jones has eight cows. If each one eats 30 pounds of hay a day, how many pounds of hay do they eat all together in a day? In a week?
5. Mrs. Flowers has five cows. Each one produces 90 glasses of milk a day. How much do they produce all together in one day? In a week?
6. A cow drinks 30 gallons of water each day. How many quarts does one cow drink? How many pints?
7. Mr. Flowers is putting a new electric fence around his pasture. The pasture is 310 feet long and 235 feet wide. How many feet of fencing will he need to buy? If electric fence wire comes in 200 ft. rolls, how many rolls does he need to buy? How much will he have left over?

Answers: 1) 63 cows; 2) 106 all together; 3) 57 more; 4) 240 pounds, 1,680 pounds; 5) 450 glasses, 3,150 glasses; 6) 120 qts., 240 pts.; 7) 1,090 feet of fencing, 6 rolls, 110 feet left over.

How Heavy IS That Cow??

Objective: Students will be able to estimate the number of students it takes to equal the weight of one cow.

The black and white Holstein cow is the most popular dairy cow in the United States. One Holstein cow usually weighs about 1,500 pounds! How much is that? To get an idea:

1. Ask students to estimate how many students it will take to equal the weight of one cow.
2. Ask each student to write his/her weight on a slip of paper.
3. Collect the slips and read the numbers aloud.
4. Have the class keep a running total of the weights until they reach 1,500 pounds.

_____ kids = weight of one Holstein cow

5. Keep going until all of the weights have been added. How many cows could it take to equal the weight of your class?

Our class weight = _____ Holstein cows weight

Mrs. Bee's Pizza Palace

Pizza made-to-order and served hot

10" cheese pizza \$6.00 14" cheese pizza. . . . \$8.00

16" jumbo cheese pizza. . . . \$10.00

EXTRA TOPPINGS

Pepperoni. \$1.75

Sausage. \$1.75

Extra cheese. . . \$1.00

Mushrooms. . . \$1.10

Green peppers. \$1.25

Olives. \$.95

Open Monday - Saturday, 11 a.m. - 10 p.m.
call 111-pizza

Use the menu shown above to solve the following problems. Do not include sales tax.

1. Will orders a 14" cheese pizza with sausage and mushrooms. How much is his bill? If he pays for his order with a twenty-dollar bill, how much change will he receive?
2. Jake and Sam order a 16" jumbo cheese pizza with extra cheese, green peppers and mushrooms. How much is their bill?
3. Sarah and Susan have \$12. Can they order a 14" cheese pizza with pepperoni, extra cheese, and mushrooms? Why or why not?
4. Kelly orders a 10" pizza with pepperoni, extra cheese, and olives. Her friend, Taylor, orders a 14" pizza with extra cheese. Whose bill will be more? How much more will it be?

ANSWERS: 1) \$10.85, \$9.15 change; 2) \$13.35; 3) Yes, the total bill will be \$11.85; 4) Kelly's bill will be \$.70 more.

Write About It!

Use the menu from Mrs. Bee's to create your own math problems. Use them to challenge your friends.

