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DAIRY mAGic KIT

TABLE OF LESSONS and STUDENT OBJECTIVES

MATH

LESSON #1

DAIRY FARMING COMPUTATIONS

1. Solve one- and two-step problems involving whole numbers, fractions and decimals using addition, subtraction, multiplication and division.
2. Perform math calculations used in the dairy industry.
3. Perform simple conversions of US measurements.
4. Create a flow chart detailing the steps of processing milk from farm to consumer.

LESSON #2

PRODUCTION PER COW

1. Solve one- and two-step problems involving whole numbers, fractions and decimals using addition, subtraction, multiplication and division.
2. Use computation skills to calculate profit.
3. Perform simple conversions of US measurements.

LESSON #3

CHEESE LOGIC PUZZLE

1. Make predictions and decisions based on data and communicate their reasoning.
2. Use logical thinking to solve a puzzle.

LANGUAGE ARTS / ENGLISH

LESSON #1

SHOW WHAT YOU KNOW – DAIRY AG MAG

1. Respond to literary material by making inferences, drawing conclusions and comparing it to their own experience, prior knowledge and other texts.
2. Identify farming practices related to livestock production.
3. Identify dairy products and by products.

LESSON #2

EXTRA CHEESE, PLEASE

1. Respond to literary material by making inferences, drawing conclusions and comparing it to their own experience, prior knowledge and other texts.
2. Outline the process of cheesemaking from farm to consumer.
3. Explain cheese making terms.

SOCIAL STUDIES

LESSON #1

SUPPLY AND DEMAND

1. Determine how changes in supply and demand affect prices.

LESSON #2

DOESN'T EVERYONE DRINK MILK?

1. Explain how social institutions contribute to the development and transmission of culture.
2. Explain that milking sheep and goats began thousands of years ago.
3. Explain why different dairy products are consumed by different cultures.

LESSON #3

YOUR MILK COMES FROM A WHAT & FROM WHERE?

1. Explain how social institutions contribute to the development and transmission of culture.
2. Describe how milk differs from one mammal species to another.
3. Identify the countries where milk-producing species are found.
4. Identify various products made from different milk producing species.

LESSON #4

MOO-VING THROUGH THE AGES

1. Identify changes that have occurred over time in the dairy industry.

SCIENCE

LESSON #1

BACTERIA IN FOOD – YOGURT

1. Compare characteristics of organisms produced from a single parent with those of organisms produced by two parents.
2. Explain how yogurt is made utilizing bacterial activity.
3. Describe the importance of pH in the yogurt making process.

LESSON #2

RENNIN – AN ENZYME

1. Observe and describe how temperature affects the action of rennin on milk.

LESSON #3

MAKING COTTAGE CHEESE

1. Observe the action of rennin on milk to make cottage cheese.

LESSON #4

ICE CREAM IN A BAG

1. Compare and contrast homemade ice cream with various fat contents.
2. Explain the use of salt in ice cream making.