

Cheesemaking: Science, Art, Craft

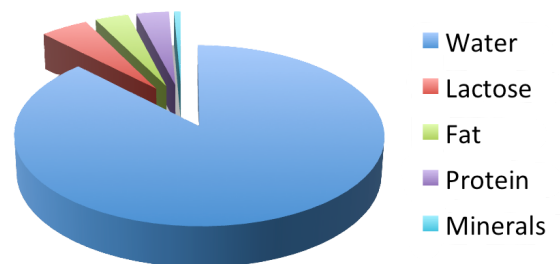
NAME: **Teacher Key**

Part 1: The Science of Cheesemaking

Answer the following questions as you watch the process of making mozzarella cheese.

1. The cheesemaking process uses science to remove all or most of the ____ **water** _____ from milk.

Composition of Milk



2. Why is heating the milk important to the cheesemaking process?

The enzyme, rennet works best at warm temperatures. Heating the milk provides an environment to activate the rennet.

3. What is the purpose of the citric acid and the rennet?

Citric acid decreases the pH of the milk which helps the rennet work faster because it begins changing lactose into lactic acid.

Rennet is the enzyme that changes the structure of casein so it will coagulate together to form curds.

4. Why is the cheese mixture heated in the microwave?

Additional heat and kneading helps release more of the liquid (whey) from the curd.



Part 2: The Art and Craft of Cheesemaking

Answer the following questions as you learn about a career as an artisan cheesemaker.

art

the expression or application of human creative skill and imagination

craft

an activity involving skill in making things by hand

- What tasks of an artisan cheesemaker apply concepts of *art*?

Examples of art could include:

Developing new flavors, packaging, and ideas for developing and marketing cheese varieties.

New flavors can be a result of how long cheese is aged, if any rubs are added, soaking cheese in a brine, or adding specific bacterial cultures.

- What tasks of an artisan cheesemaker would be considered a *craft*?

The entire cheesemaking process requires skill. The physical process of making the cheese, monitoring the process, packaging, and marketing.

- If you were to create your own recipe for a flavored hand rubbed cheese, what would you create? (see examples below)

Give students time and resources to explore specialty cheese types and flavors. Focus on cheese factories in your local area, or explore others through the internet.

Encourage students to brainstorm flavors and flavor combinations they enjoy and think of a new idea for a flavored cheese like an artisan cheesemaker would.



Smoked Apple Walnut



Rubbed with Espresso
and Lavender



Honey and Seasalt