

Student Questions

1. What is the function of air in ice cream?
2. What is meant by the term “overrun”?
3. What difference in melting rate is caused by the amount of air in ice cream?
4. What is the relationship between the amount of air in ice cream and its density?
5. What is an emulsion? Explain how ice cream can be considered an emulsion.
6. Why is sugar added to the ice cream mix when the milk in ice cream already contains the sugar, lactose?
7. What percent of ice cream must be fat?
8. What is the purpose of fat in ice cream?
9. What steps must be taken to have the fat in ice cream mix with the other non-fat, water-based ingredients?
10. What are some other emulsifiers in ice cream beside the milk proteins, casein and whey?
11. What purpose is served by adding stabilizers to the ice cream mix?

Directions: As you read the article, complete the graphic organizer below comparing the ingredients in ice cream.

Ingredient	What is its purpose?	How does the amount affect the taste or appearance of ice cream?
Air		
Sugar		
Fat		
Lecithin		
Gelatin		