

# East Whittier Middle School Reading Article

*Ice Cream That Does Not Melt Could Soon 'Hit the Shelves' (1330)*

**Instructions: COMPLETE ALL QUESTIONS AND MARGIN NOTES** using the **CLOSE** reading strategies practiced in class. This requires reading of the article **three times**.

**Step 1: Skim** the article using these symbols as you read:

(+) agree, (-) disagree, (\*) important, (!) surprising, (?) wondering

**Step 2: Number** the paragraphs. **Read** the article **carefully** and **make notes in the margin**.

Notes should include:

- Comments that show that you **understand** the article. (A summary or statement of the main idea of important sections may serve this purpose.)
- Questions you have that show what you are **wondering** about as you read.
- Notes that differentiate between **fact** and **opinion**.
- Observations about how the **writer's strategies** (organization, word choice, perspective, support) and choices affect the article.

**Step 3: A final quick read** noting anything you may have missed during the first two reads.

Your **margin notes** are part of your score for this assessment. Answer the questions carefully in **complete sentences** unless otherwise instructed.

Student \_\_\_\_\_ Class Period \_\_\_\_\_

## Ice Cream That Does Not Melt Could Soon 'Hit the Shelves'

*Notes on my thoughts, reactions and questions as I read:*

*Scientists have discovered a protein which binds the components of ice cream together and stops it melting so fast*



The new ingredient should create firmer, longer lasting ice cream that will keep it frozen for much longer in hot weather

Ice cream that does not melt in the sun could hit the shelves within three years, scientists have claimed.

# East Whittier Middle School Reading Article

*Ice Cream That Does Not Melt Could Soon 'Hit the Shelves' (1330)*

Experts believe they have developed a recipe for a more robust frozen desert that will consign childhood memories of sticky hands and dissolving cones to history.

It is based on a naturally occurring protein that binds together the air, fat and water in ice cream to make it more resistant to melting. The new ingredient should create firmer, longer lasting ice cream that will keep it frozen for much longer in hot weather.

The scientists, from the Universities of Dundee and Edinburgh, said it could also prevent gritty ice crystals from forming, ensuring a fine, smooth texture more reminiscent of luxury ice creams.

The development could also allow products to be manufactured with lower levels of saturated fat and fewer calories.

Prof Cait MacPhee, an experimental biomolecular physicist at the University of Edinburgh who led the project, said: "We're excited by the potential this new ingredient has for improving ice cream, both for consumers and for manufacturers."

The researchers developed a method of producing the new protein, which occurs naturally in some foods, in friendly bacteria. It works by adhering to fat droplets and air bubbles, making them more stable in a mixture.

They said the protein could be processed without loss of performance and could be produced from sustainable raw materials. Manufacturers could also benefit from a reduced need to deep freeze their product, as the ingredient would keep ice cream frozen for longer.

Dr Nicola Stanley-Wall, a molecular microbiologist from Dundee University, said: "It has been fun working on the applied use of a protein that was initially identified due to its practical purpose in bacteria."

The experts said that exactly how long one might have to devour a cone would depend on several factors, including the type of ice cream and the weather. They estimate that ice cream made with the ingredient could be available within three to five years.

The protein, known as BslA, was developed with support from the Engineering and Physical Sciences Research Council and the Biotechnology and Biological Sciences Research Council.

*Notes on my thoughts, reactions and questions as I read:*