

ENIGMA 5

- **Visual and format**
- **Enigma/puzzle**

How to make yogurt at home?

MULTIPLE CHOICE QUESTIONS

- Q1. What is the main purpose of boiling the milk?**
 M. To kill all harmful microbes which may multiply in the culture and contaminate the product
 N. To remove lactose to prevent lactose intolerance effects
 O. To denature the milk proteins
 P. To thicken the milk to become yogurt
- Q2. As you saw, the temperature was lowered from a boil to around 40 degrees Celsius before adding yogurt to it. Why is this step important?**
 C. To kill all bacteria present at this time
 A. Bacterial cultures grow optimally at this temperature
 B. So that it does not scald the person making the yogurt
- Q3. Why is the milk not refrigerated at this point?**
 Y. The yogurt is too hot to be refrigerated at this point
 Z. To allow the introduced bacteria to multiply in its optimal temperature (around 40 degrees Celsius)
 X. To ensure that the bacteria does not grow yet, since its optimum growth temperature is at around 10 degrees Celsius
- Q4. Why does the newly made yogurt have to be kept in the fridge?**
 E. To prevent growth of other types of harmful bacteria that will spoil the yoghurt
 F. To solidify the yogurt
 G. To allow the bacteria to continue multiplying at a high rate

Choose the correct answers. They will form a word, which will lead you to the next puzzle.

Instructions note for students:

This quiz is based on a video. Read the MULTIPLE CHOICE QUESTIONS. Then, watch the video and think about the questions that you will have to answer. Choose your answers. The correct answers will lead you to the next puzzle.

- **Estimated solving time**

5 – 10 minutes

- **Solution**

Correct answers:

Q1 – M
 Q2 – A
 Q3 – Z
 Q4 – E

- **Depends on (For example: depends on finding element 1)**

Watching the video carefully.

- **Benefits (For example: allows you to find the coordinate of ...)**

Leads to the next puzzle

- **Hints:**

- **Hint 1**
(subtle)

You need only useful bacteria

- **Hint 2**
(easy)

40 degrees Celsius - important temperature

- **Hidden place/placement**

Box/folder 5, envelope 2 on each station's table

- **Material needed**

- Pen/Pencil
- Highlighter
- Video 2
- Recipe for homemade yogurt