

## SW1 – Yoghurt Experiment Worksheet

### Yoghurt Experiment Worksheet

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| --- | --- | --- |
| Test 1 - Yoghurt | **Before Incubation** | **After Incubation** |
| What was the consistency of the mixture? |  |  |
| What did the mixture smell like? |  |  |
| What was the colour of the mixture? |  |  |

|  |  |  |
| --- | --- | --- |
| Test 2 – Sterile Yoghurt | **Before Incubation** | **After Incubation** |
| What was the consistency of the mixture? |  |  |
| What did the mixture smell like? |  |  |
| What was the colour of the mixture? |  |  |

How did the mixture change during fermentation?

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Test 3

How long did it take to make the yoghurt when the mixture was incubated at:

20°C - \_\_\_\_\_\_\_\_\_\_\_\_

40°C - \_\_\_\_\_\_\_\_\_\_\_\_

SW2 - Microscopic Yoghurt Observation Sheet

How to Make Yoghurt

Procedure

Test 1

1. Place a small drop of yoghurt onto one side of a glass microscope slide.
2. Taking a second clean slide, streak the yoghurt across the length of the slide creating a thin smear.
3. Leave the slide to air dry and then pass once through a Bunsen flame in order to heat fix the smear.
4. Cover the smear with a few drops of Methylene Blue and leave for 2 minutes.
5. Wash off any excess stain by running under a slow running tap.
6. Cover smear with a cover slip and examine the slide under a high powered microscope.
7. Record your observations below.

Test 2

1. Repeat steps 1-7 above using sterile yoghurt instead of live culture yoghurt.

How to prepare a smear:

Observations

What did you see in the yoghurt smear?

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What did you see in the sterile yoghurt smear?  
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What, in your opinion, caused the difference?  
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Yoghurt

1. Approach

2. Adhesion

3. Advancement



## SW1 – Yoghurt Experiment: Conclusions

### Yoghurt Experiment

Conclusions

1. What caused the change from milk to yoghurt?  
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2. What is this process called?  
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Explain the difference in results in test 1 and test 2.  
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4. What is the type and name of microbes which can be used to make yoghurt?  
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5. Why did it take longer to make yoghurt at 20°C than at 40°C?  
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. A sterile spoon is used to stir the mixture (step 5) before incubating, what do you think might happen if a dirty spoon was used?  
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