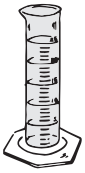
The Science Lab

CURD FORMATION

You will need:

Milk

Curd



Measuring cylinder

Dropper

Beakers/bowls

What to do:

1. Design an experiment to determine conditions for curd formation within 6 h using:
   a. The lowest volume of milk.
   b. The lowest volume of curd.
   c. The ideal volume/volume ratio of milk/starter curd.
2. Set up the experiment and leave the beakers in a warm place.
3. Observe the contents of the beakers every hour and record the time point at which you notice the first change in physical consistency.
4. Continue observing the beakers every hour, recording changes in smell and pH.

Experimental set up:

Beaker no:	Volume of milk (ml):	Volume of curd (ml):	Incubation temperature:
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			

i wonder...
Rediscovering school science

Contributed by:
Rohini Karandikar is a Post-doctoral fellow at HBCSE, Mumbai.
Ritesh Khunyakari is an Associate Professor, TISS, Hyderabad.

Azim Premji University

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Observe: Record your observations in the table below

Beaker no:	Change in physical consistency (runny/semi-solid/solid) and pH (with time point of change)
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	

Discuss:

1. Can curd formation occur without adding any curd to milk? Why?
2. Why do you think some curd needs to be added to milk to get a fresh batch of curd?
3. What is the lowest volume of milk/volume of curd ratio that results in curd?
4. Which experimental set-up showed the fastest curd formation? How many hours did curd formation take in this set-up?
5. Which experimental set-up showed the slowest curd formation? How many hours did curd formation take in this set-up?
6. When did you notice the earliest signs of change:
   a. In physical appearance?
   b. In smell?
   c. In pH?
7. The aim of this experiment is to turn milk into curd. Do you think it is possible to turn curd into milk? Why?

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