



Nether Stowe School

Lichfield, Staffordshire



Introduction

The exercise you are going to complete uses a collection of websites, to lead you through the applications of enzymes in industry.

- In order to access the websites referenced in this exercise, you will need to open up the links page on the Science Department Website (www.sciencepages.co.uk). Navigate to GCSE > Industrial Uses Of Enzymes. All of the websites in this exercise are linked to from that page.



Part 1 - Uses of yeast

→ Web-sites: 'Rates of Reaction - Enzymes'

Click on the "Yeast" link on this website and answer these questions:

1. What does the enzyme in yeast convert sugar into?

2. What is the name we give to this process?

3. Copy the equation for what yeast does to glucose:

yeast + _____ → _____ + _____

4. What is made instead of alcohol if air is present?

5. Name two alcoholic drinks made using yeast and what they are made from:

The drink _____ is made using _____

The drink _____ is made using _____

6. Why is using yeast good for making bread?

Part 2 - Yoghurt and cheese

→ Web-sites: 'Rates of Reaction - Enzymes'

Click on the "Yoghurt" link on this website and answer these questions:

7. Describe how yoghurt is made from milk using enzymes:

8. Describe how cheese is made from milk using enzymes:

Part 3 - Other use of enzymes

Use the table on the links page to complete this table of other uses of enzymes:

Industry	Function of enzymes
confectionary	<ul style="list-style-type: none"> break down _____ into glucose syrup change glucose into _____ which is sweeter, so less is needed to get the sweetness - this is useful for making _____ foods
baby food	<ul style="list-style-type: none"> start off _____ of food so that it is easier for _____
fruit juice	<ul style="list-style-type: none"> make the juice _____
biological detergent	<ul style="list-style-type: none"> break down _____ _____ fabrics
meat	<ul style="list-style-type: none"> make the meat _____
medical	<ul style="list-style-type: none"> _____

If you have time, look at the other websites linked to from the links page!