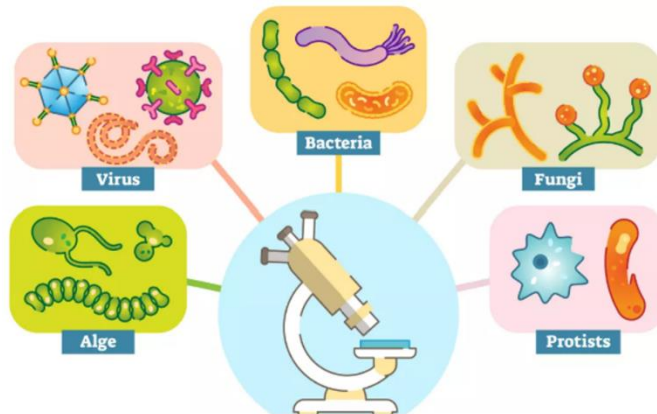




S2 Science

Micro-organisms and You

Homework



Name _____
Class _____
Teacher _____

Homework	Date due	Score	Comment
1			
2			
3			

1. There are 3 types of micro-organisms.

a) Name them.

1

b) State the order of size largest to smallest.

1

2. The table below shows the blood groups of 200 students.

<i>Blood group</i>	<i>Number of students</i>
O	94
A	84
B	16
AB	6

What percentage of students had blood group AB?

A 3%

B 6%

C 12%

D 53%

1

3. The following table shows the number of people with four different viruses types most commonly found in a living room.

Viruses found	Number found in a living room
The flu	5
Norovirus	10
Herpes simplex	2
HPV	3

Calculate the **simplest whole number ratio** of the norovirus compared to herpes simplex?

A 10 : 2

B 2 : 10

C 5 : 1

D 1 : 5

1

4. Micro-organisms need different conditions to survive. Name these conditions/ requirements to survive and divide.

1 _____

2 _____

3 _____

1

5. Describe what happens to micro-organisms at high temperatures.

1

6. A scientist set up a petri dish. She wanted to see what types and how many micro-organisms were growing on a door handle. On one side of the petri dish she put the sample from the door handle, but on the other side she didn't put a sample. Give the name of this protocol, and describe the purpose of it.

Name _____

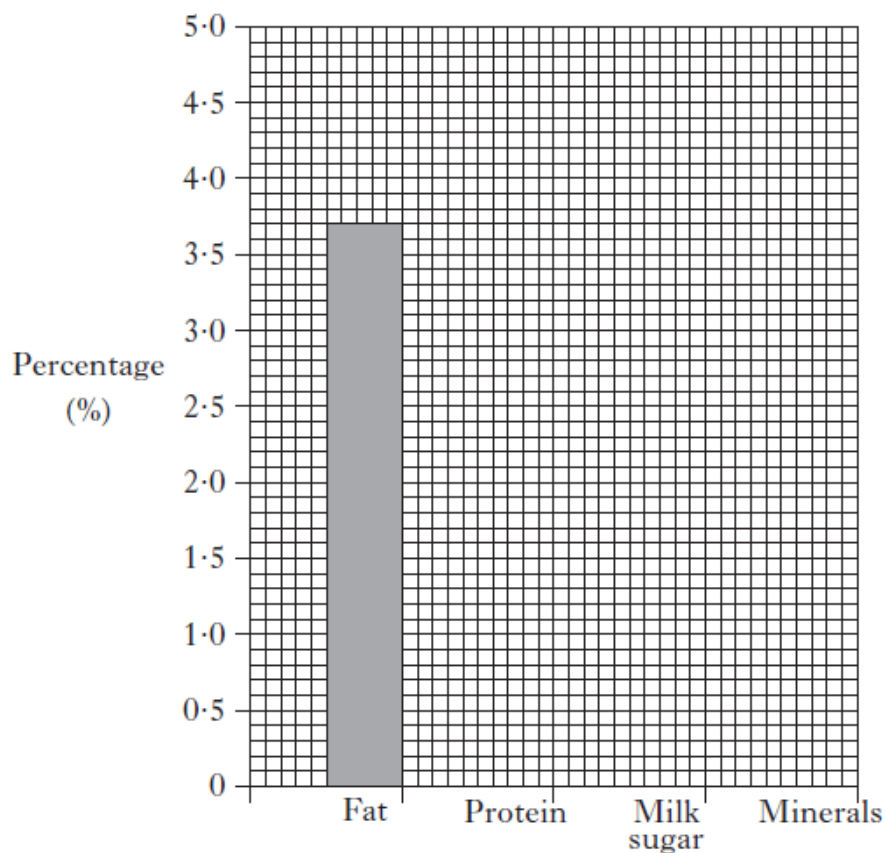
2

Purpose _____

6. The table below shows the percentage of four substances found in a type of milk.

<i>Substance</i>	<i>Percentage (%)</i>
fat	3.7
protein	3.3
milk sugar	4.9
minerals	0.7

On the grid below, complete the bar graph



2

Total /10

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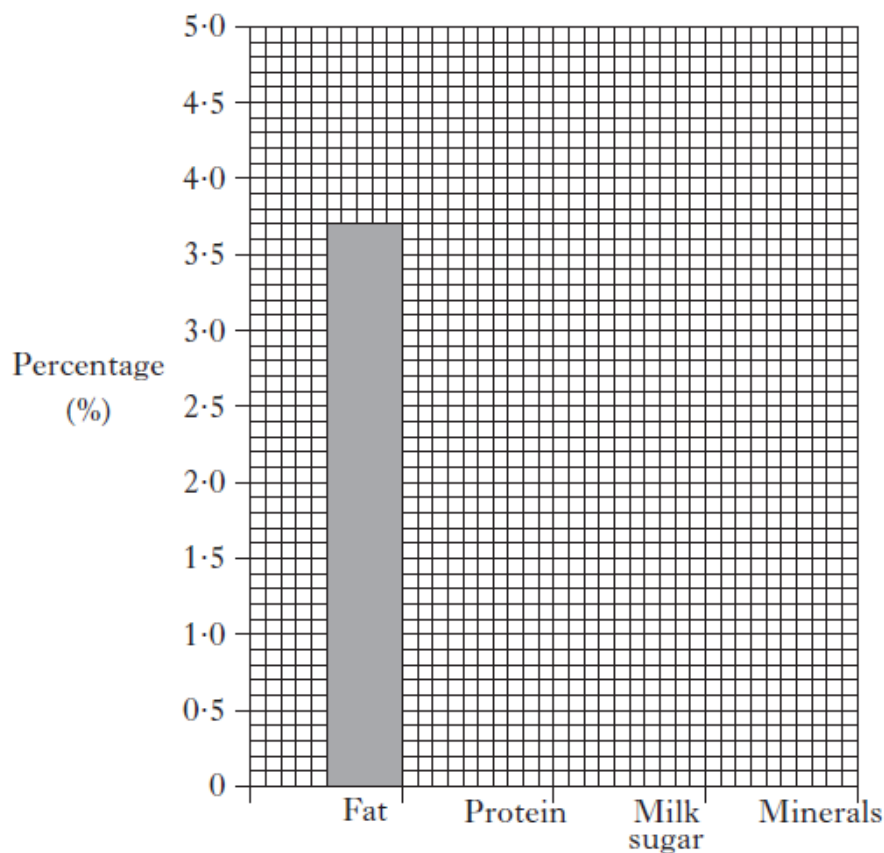
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Micro-organisms and you

Homework 1

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4. Micro-organisms need different conditions to survive. Name these conditions/ requirements to survive and divide.

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5. During baking, the sugar in the dough mixture is fed upon by yeast. This process is called fermentation. Complete the fermentation equation below: 1

Sugar + _____ $\longrightarrow$ + carbon dioxide + _____

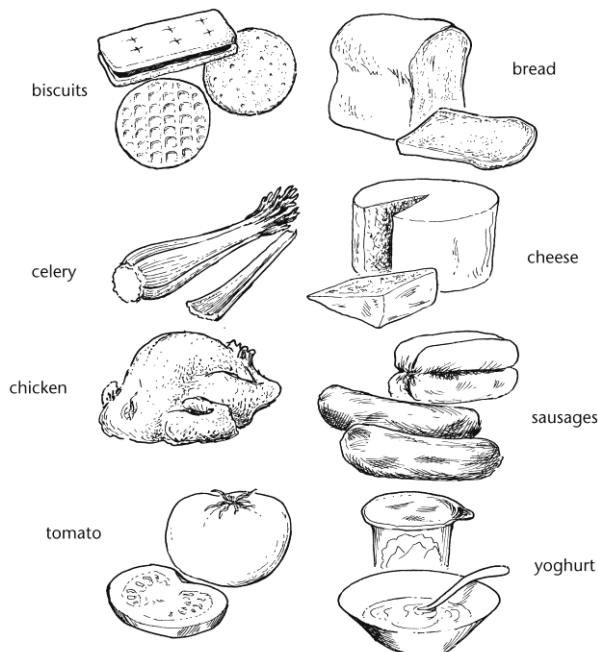
6. Name the two products produced during respiration pathway. 1

7. Name a milk product that is made using the process of fermentation. 1

8. Which of the following is the micro-organism that is added to milk to make yoghurt?

- a. yeast
 - b. bacteria
 - c. viruses
- 1

9. Here is a list of foods. List the ones that are made using micro-organisms.



10. Name the micro-organism used in brewing beer. 1

11. What gas from the air do the micro-organisms in bread dough produce? 1

12. Which 2 of the things below are required to make yoghurt? (Circle)

milk	yoghurt	viruses
rennet	enzymes	bacteria

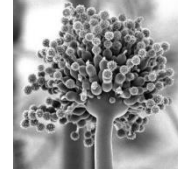
1

13. Name one disease caused by:

a. a bacteria = _____

b. a fungi= _____

c. a virus= _____



1

14. Name two ways in which an infectious disease can be spread.

1



15. A hospital has a problem with MRSA. Suggest some measures they could take to stop the spread of diseases.

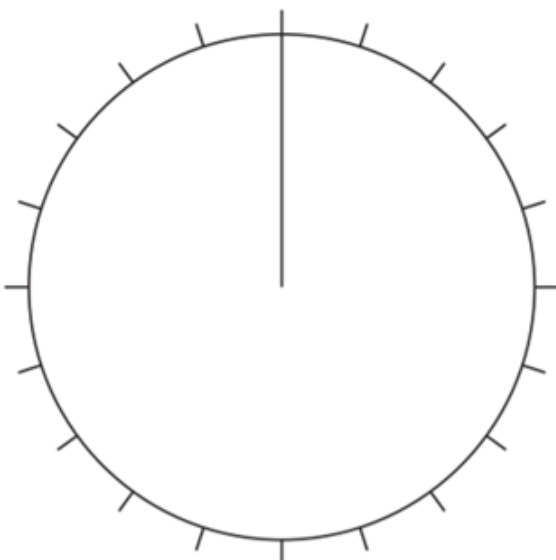
1

16. A micro-biologist was research the different types of cells found in the hospital waiting room, she found 600 cells. She found 230 fungal cells, 210 bacterial cells and 150 viruses.

Calculate the percentage of bacterial cells she found in the waiting room.

17. In the hospital there are different illnesses in ward 17 to 25. These disease are 35% MRSA, 25% vomiting, 15% dehydration, 5% diarrhoea, 20% Urinary Tract Infections (UTIs).

2



Total /15

1. During baking, the sugar in the dough mixture is fed upon by yeast. This process is called fermentation. Complete the fermentation equation below:

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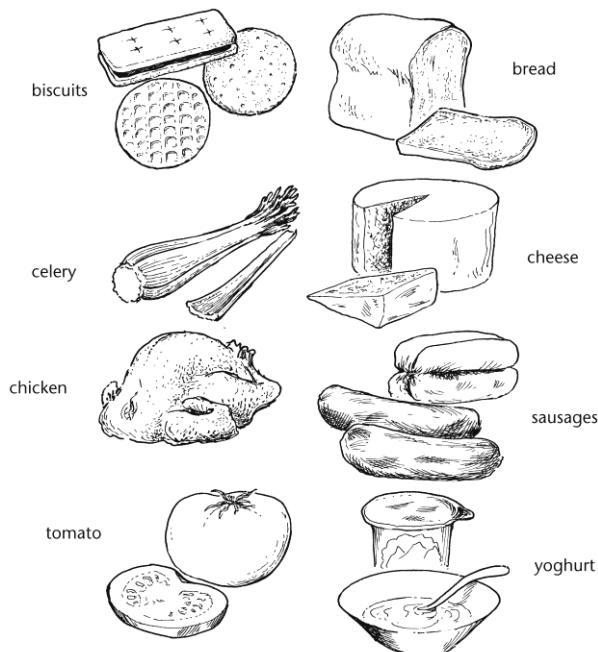
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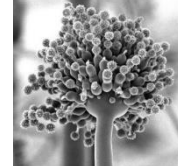
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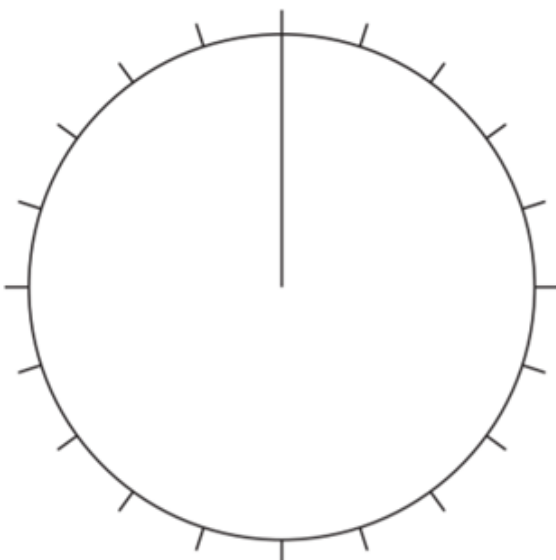
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2



Total /15

Micro-organism
Virus
Fungus
Bacteria
Pathogens
White blood cells
Antibiotics
Immune
Vaccine

A microbe which must be in another cell to replicate
Any micro-organism which can make someone ill
Microscopic organism
The cells which destroy pathogens
A certain pathogen will no longer make you ill, as you have those antibodies.
The micro-organism which is used to make blue cheese
The micro-organism used for making bread and which causes athletes foot
Medicine which will kill bacteria
What can be given in order to make someone immune

9

Give two ways which micro-organisms can enter the body

-
-

2

Give two ways in which micro-organisms are stopped from entering the body

-
-

2

Describe how the 2 white blood cells destroy viruses.

2

Total	/15
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