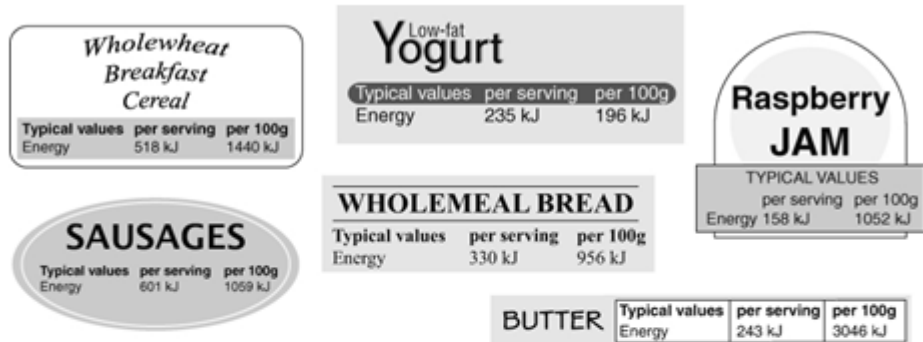


Biscuits & energy

TASK 1

1 Look at the food labels below, then fill in the table.



Type of food	Energy value in 100 g (kJ per 100 g)	Energy value in one serving (kJ per serving)
cereal		
jam		
yoghurt		
sausages		
bread		
butter		

2 Which food gives the most energy per 100 g? _____

3 Which food gives the most energy per serving? _____

4 a How much energy would you get if you had a slice of bread and butter with jam on it?

Show your working. _____

b How much energy would you get if you ate a sausage sandwich made with two sausages?

Show your working. _____

TASK 2

Aim

You are going to compare the amounts of energy stored in different foods.

Introduction

Our bodies get the energy we need from the energy stored in food. Different kinds of food store different amounts of energy.

Method

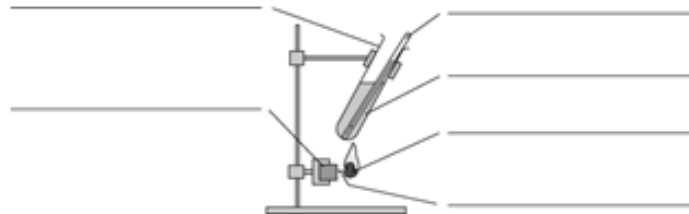
Apparatus

- different kinds of food
- eye protection
- cork
- water
- clamp stand
- measuring cylinder
- Bunsen burner
- pin
- thermometer
- boiling tube

⚠ Wear eye protection.
Do not eat any of the foods.

Label this diagram using words from the box.

boiling tube cork food
pin thermometer water



Fill in the missing words using words from the box below.

- A I will heat some water using the energy from a _____.
- B I will make it a fair test by using the _____ amount of water each time and holding the burning food the same _____ from the boiling tube.
- C I will measure the volume of the water using a _____ and pour it into a boiling tube.
- D I will measure the temperature of the water using a _____.
- E I will _____ the experiment with the other foods.

distance measuring cylinder piece of food repeat same thermometer

Biscuit	Temperature of water before (°C)	Temperature after (°C)	Temperature rise (°C)
Jammie dodger	22	26	4
Oreo	20	23	3
Chocolate digestive	20	21.5	1
Plain digestive	22	23	1.5

When the food burned the energy stored in it was transferred to the water and made it hotter.

The food that gave the highest temperature was the _____.

This is the food which stores the _____ energy.