

Energy

1. Energy costs

CONCEPT 1

TEST YOURSELF

ENERGY FROM FUEL AND FOOD

KNOW

- Q1 What is a fuel?
- Q2 Name three fuels that might be used in the home.
- Q3 What unit is used to measure energy?

APPLY

- Q4 Why is food a vital fuel for our body?
- Q5 What energy is stored in food?

The energy in food is measured in **1000s of joules** which we call **kilojoules**. We write **1000 J** as **1 kJ**. An older unit to measure energy in food is called the '**Calorie**' and its unit is written as **kCal**.

- Q6 Look at the following food labels and calculate how many kilojoules equals 1 Calorie.
Round your answer to 1 decimal place.

Each grilled burger (94g) contains

Energy	Fat	Saturates	Sugars	Salt
924kJ 220 kcal	13g	5.9g	0.8g	0.7g
11%	19%	30%	<1%	12%

Oven cooked per 1/2 pack (400g)

Energy	Fat	Saturates	Sugars	Salt
1411kJ 336 kcal	8.8g	1.6g	6.0g	1.4g
17%	13%	8%	7%	23%

EXTEND

- Q7 A mars bar contains 1873 kJ per 100 g. A mars bar has a mass of 58 g. How many Calories are in a mars bar?
- Q8 Give two examples of changes taking place that involve energy transfer, and explain where you think the energy has been transferred to.