

Hot Topics

Hot News About Calories

Many foods hold awesome amounts of energy.

What does a burning cheese curl have to do with energy? Ask Joe Cifelli. He's a professor at St. Joseph's University in Philadelphia. He also teaches fourth graders about **nutrition**—the science of food and diet. The first lesson is setting cheese curls on fire.

Cheese curls burn because they contain energy. "Food is energy," Cifelli explains. Fire consumes that energy when Cifelli burns a cheese curl. When you eat food, you are putting energy into your body. You use energy in many different ways—running on the playground, walking the dog, and brushing your teeth. Everything your body does requires energy, even breathing and thinking.

Energy is measured in units called **calories**. Scientists figure out how many calories are in a food by burning it, much as Cifelli does, but they use a device called a **bomb calorimeter**. That machine measures the heat given off by the burning food.

People on diets often worry about the calories they eat and count calories like wannabe scientists. But calories aren't bad! In fact, most kids need between 1,600 and 2,500 calories per day to grow and be healthy.

If you eat more calories than you burn off, your body stores that energy. "It's like gasoline," Cifelli says. "If you don't burn it, your body will put it in a storage tank." Your body turns unused calories into fat for storage.

Having too much fat and being overweight can cause health problems. But you can work to stay at a healthy weight by listening to your body; be active and don't eat unless you feel hungry. Healthy eating, Cifelli claims, is just a matter of understanding the energy that goes in and the energy that is burned off. "It's about making choices," he says.

Big Kiss



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Joe Cifelli says people are surprised by how much energy is in food. A Hershey Kiss has 26 calories, Cifelli says. That doesn't sound like much, but if a machine could turn all that energy into power, it could lift a car six feet off the ground! When you eat, your body uses most of that energy to digest your food and keep the trillions of cells in your body running smoothly.

Name: _____ Date: _____

1. What is a calorie?

- A a device to measure heat
- B a unit of heat energy
- C a storage tank for energy
- D a fire that burns slowly

2. In this passage, how does the author describe food?

- A Because food is tasty, it is fine to eat more than you need.
- B Food is the energy your body needs to work properly.
- C Eating a lot of fat helps the body to grow and be healthy.
- D Most foods contain more calories than your body needs.

3. After reading the passage, what can you conclude about Joe Cifelli?

- A He is very educated about nutrition.
- B He doesn't like teaching fourth graders.
- C He is overweight and doesn't exercise.
- D He likes to eat cheese curls and chocolate.

4. Read this sentence from the passage: "Scientists figure out how many calories are in a food by burning it, much as Cifelli does, but they use a device called a bomb calorimeter."

In this sentence, the word **device** means

- A a tool for burning food
- B a scientific theory
- C an idea or thought
- D a piece of equipment

5. The primary purpose of this passage is to describe

- A how food is energy
- B why people should count calories
- C why kids should get more exercise
- D how learning about science is fun

6. Why do cheese curls burn when set on fire?

7. Why does the author compare calories to gasoline?

8. The question below is an incomplete sentence. Choose the word that best completes the sentence.

Eating too much fat _____ being overweight can lead to health problems.

- A** for
- B** and
- C** but
- D** from

9. Answer the following questions based on the sentence below.

Joe Cifelli teaches fourth graders about nutrition by setting cheese curls on fire.

Who? _____

(does) What? teaches fourth graders about nutrition

How? _____

10. **Vocabulary Word:** storage: a place for storing goods.

Use the vocabulary word in a sentence: _____

Teacher Guide and Answers

Passage Reading Level: Lexile 820

Featured Text Structure: Descriptive – the writer explains, defines, or illustrates a concept or topic

Passage Summary: “Hot Topics” describes a professor who teaches fourth graders about nutrition by teaching them about the energy found in food and how that energy is measured.

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6. Why do cheese curls burn when set on fire?

Suggested answer: They contain energy. [paragraph 2]

7. Why does the author compare calories to gasoline?

Suggested answer: The author compares calories to gasoline to explain how calories work. The human body turns unused calories into fat for storage. "It's like gasoline," Cifelli says. "If you don't burn it, your body will put it in a storage tank." [paragraph 5]

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Who? **Joe Cifelli**

(does) What? teaches fourth graders about nutrition

How? **by setting cheese curls on fire**

10. **Vocabulary Word:** storage: a place for storing goods.

Use the vocabulary word in a sentence: answers may vary.