

Energy Reading Guide

Page 159 in "Food Science"

1. Define "ENERGY".
2. Successfully transferring energy from one source to another is a foundation for _____, _____, and _____.
3. What is the source of energy on Earth?
4. In a sentence or two, paraphrase the process of how the sun turns into energy for those who eat it (animals and humans).
5. Define HEAT.
6. In chemistry, a _____ is a unit of heat measurement.
7. One calorie is defines as :
8. What are most people actually referring to when they say the term "calorie"?
9. 1 kcal = _____1000 calories_____
10. Another unit of measurement used by chemists is known as _____joule_____.
11. Molecular motion in a gas is fast. Why is this?

12. WHY is molecular motion in liquids more restricted?

13. WHY is molecular motion in solids most restricted?

14. How do ALL molecules respond when heat energy is added?

15. How is the increased activity measured?

16. Define TEMPERATURE.

17. What does lowering the temperature of something do to the molecular motion?

18. Define SPECIFIC HEAT.

19. There are three ways to transfer heat. They are _____,
_____ and _____.

20. How is heat energy passed in CONDUCTION?

21. Draw figure 11-2 to remind you how conduction works.

22. How long does energy transfer during conduction heating?

UNTIL....

23. Paraphrase how making pancakes illustrates the process of conduction.

24. Define CONVECTION.

25. What is a good example of something cooked by convection?

26. Define RADIATION.

27. What is a good example of radiation in cooking?

28. What is the ultimate source of radiant heat on Earth?

29. How does bread in the toaster feel the same way you feel when you are in the sunshine?

30. Which types of heat are transferred when baking cookies?

31. How do microwaves work?

32. Microwaves usually cook foods in _____ time than other methods.

33. What are the three factors that influence whether or not a cooked food is fit to eat?

- 1.
- 2.
- 3.

34. What is the main control over the rate at which molecular changes take place?

35. Why does a pan with 1 cup of water boil faster in a big, shallow pan as opposed to a deep pot?

36. What are the four most common heat media?

37. What are 2 examples of ways to cook with air?

38. What are 2 examples of how to cook with water?

39. What fuels your bodies activities?

40. How are excess calories stored in the body?

41. Define OBSEITY.

42. People often worry too much about the amount of calories they consume, and not the content of the calories. DO you think this way?

43. How is maintaining a healthy weight like keeping a budget?

44. How does your body lose 1 pound?

45. What is a good, healthy amount of calories to cut out of your diet per day?

46. How long would it take you, then, to lose a pound?