

Name _____ Period _____ Date _____

IC3 Test Review

1. Kinetic energy is the energy of _____
2. A calorie is the unit for energy provided when food molecules and _____ react. It is also the amount of energy needed to heat _____ by 1°C
3. Energy can never be created nor destroyed, only converted from one form to another and this is called the _____
4. An Energy Conversion is the _____ from one form to another.
5. A _____ is when two or more reactants react to form products.
6. Reactants are the parts of a _____ and this later forms products.
7. Energy is the ability to do _____.
8. A _____ is a molecule that makes up living things, made up of carbon, hydrogen, oxygen and nitrogen, sometimes even sulfur.
9. _____ are the results of a chemical reaction.
10. _____, or _____, Energy is the total kinetic energy contained in all the particles of a substance.
11. A **food** calorie is the amount of energy needed to heat _____ of water by 1 °C.
12. _____ is the molecule made up of carbon, hydrogen, and oxygen and is the product of photosynthesis.
13. Carbohydrates can link their **subunits** together to form new carbohydrate compounds such as _____
14. Protein subunits are called _____ acids.
15. Molecules that store excess food energy in an organism are called _____ molecules.
16. Potential energy is the energy stored because of an object's _____, condition, or makeup.
17. _____ is a simple sugar, one carbohydrate subunit, made by plants through the process of photosynthesis.
18. Variable: when factors in an experiment are manipulated, it is a measurable part of the experiment that can change.
19. _____ is the process in a cell in which food molecules are chemically combined with oxygen, and energy is released with the products of CO₂ & H₂O.
20. _____ Variable is the variable in an experiment that is being observed, and that changes in response to the independent variable.
21. _____ Variable: is the variable that you purposely manipulate (change). It is intentionally varied by the experimenter.
22. The _____ is the group that serves as a standard of comparison. The control is exposed to the same conditions as the experimental group, EXCEPT for the variable being tested.

Show all work and units. Use only appropriate and exact units

23. How many yards are there in 1.7 miles? _____

24. $\frac{1.2 \text{ cups}}{\text{Hr}}$ _____ $\frac{\text{gallon}}{\text{day}}$

25. $\frac{17 \text{ inches}}{\text{Minute}}$ _____ $\frac{\text{meters}}{\text{hour}}$

26. Calculate how much energy is in a piece of food when 76 grams of water goes from 22 °C to 35 °C = _____

27. What is required for fire? _____

Describe what happens when you exercise, in terms of:

28. Skin _____

29. Breathing _____

30. Heart rate _____

31. CO₂ _____

32. Describe what is meant by **sources of error**

33. Give examples of sources of error

34. There are 212 Calories in a Kit Kat bar. How much time would you have to jog to burn off the candy if you use 9.2 Calories per minute? _____

35. Describe aspects of your plant experiment and how plant growth was affected by the various experimental factors that they were exposed to.

36. Describe evaporation and how it can cool surfaces.

37. Temperature is the measure of the _____ of the molecules.

38. LASER stands for _____

39. How does UV light make some things give off light rather than just reflecting it? Include electrons and energy levels in your answer.

40. What are the five identifiers for skin cancer? _____

41 – 45. What about each one would possibly indicate cancer?

A. _____

B. _____

C. _____

D. _____

E. _____

46. In terms of light, the moon at night is _____ while the stars are _____

47. Draw a diagram of normal reflection and include the angles, the normal, incident light and reflected light.

48. Describe Normal Reflection and Diffuse Reflection give examples of each.

50. When water gets hotter and hotter it will change states. What are the three common states, and what is each change called?

51. When water gets colder, what are the three common states, and what is each change called?