1. _______ is something that has volume and mass, is made up of particles called molecules, and can be a solid, liquid, gas, or plasma.
   - Seawater
   - Matter
   - Mixture

2. All matter can be categorized as either a pure substance or a mixture. Two examples of pure substances about which we've learned are _______.
   - elements and compounds
   - mixtures and solutions
   - soil and mixed nuts

3. _______ is the amount of matter in a substance/object.
   - Mass
   - Volume
   - Density

4. _______ is the amount of space that an object/substance takes up.
   - Mass
   - Volume
   - Density

5. The metric unit of measurement for volume is the _______.
   - gram
   - liter
   - meter

6. The metric unit of measurement for mass is the _______.
   - gram
   - liter
   - meter
7. A _______ is a characteristic that describes matter.
   - proton
   - property
   - popcorn electron

8. Matter has both _______ properties.
   - chemical and physical
   - rented and leased
   - beneficial and harmful

9. The physical properties of a substance can be observed or measured without __________ the substance.
   - chemically changing
   - physically changing
   - paying for

10. Color, shine, odor, taste, hardness, boiling point, and heat conductivity are all examples of _______ properties.
    - physical
    - chemical
    - non-

11. _______ are those characteristics of a substance that can only be observed during a chemical change.
    - Chemical properties
    - Physical properties
    - States of matter

12. A chemical property is only observed during a chemical change. Another name for a chemical change is a _______.
    - chemical reaction
    - physical reaction
    - physical change
13. A chemical property is only observed during a chemical change. Chemical changes result in the _______.
   - blowing up of the lab
   - production of a new substance
   - change from liquid to solid

14. White phosphorous ignites easily. This is an example of a _______ property.
   - physical
   - chemical

15. Salt dissolves in water. This is an example of a _______ property.
   - physical
   - chemical

16. Iron rusts when it is exposed to air. This is an example of a _______ property.
   - physical
   - chemical

17. During photosynthesis, carbon dioxide and water react to form sugar and oxygen. This is an example of a _______ property.
   - physical
   - chemical

18. Baking soda and calcium chloride react with water and each other. This is an example of a _______ property.
   - physical
   - chemical

19. Mercury is a liquid at room temperature. This is an example of a _______ property.
   - physical
   - chemical
20. Carbon is grayish in color. This is an example of a ________ property.
   - [ ] physical
   - [ ] chemical

21. Cellulose is flammable. This is an example of a ________ property.
   - [ ] physical
   - [ ] chemical

22. Water freezes at 0 degrees Celsius. This is an example of a ________ property.
   - [ ] physical
   - [ ] chemical

23. We’ve studied three main states of matter. They are
   a. solids, liquids, and gases
   b. atoms, protons, and electrons
   c. elements, compounds, and mixtures

24. The ________states that all matter is made up of moving particles called molecules.
   a. the potential theory of matter
   b. the kinetic theory of matter
   c. the bonanza trio
25. The state that matter is in depends on how _______ the molecules are moving and how much attraction the molecules have for one another.
   a. curvy
   b. fast
   c. straight

26. In a ___________, the molecules are close together.
   a. solid
   b. liquid
   c. gas

27. The force of attraction between a ___________ molecules is strong enough to keep the volume constant, but not strong enough to give the matter a definite shape.
   a. solid’s
   b. liquid’s
   c. gas’s

28. The molecules in a ___________ do not move around freely, but they do vibrate.
   a. solid
   b. liquid
   c. gas
29. The molecules in a __________ are very far apart and are also moving very quickly.
   a. solid
   b. liquid
   c. gas

30. A __________ has a definite shape and volume.
   a. solid
   b. liquid
   c. gas

31. __________ expand to fill and take the shape of whatever container they are in.
   a. Solids
   b. Liquids
   c. Gases

32. If molecules of substance A have a medium attraction for one another, substance A is most likely a __________.
   a. solid
   b. liquid
   c. gas

33. __________ have a definite volume, but not a definite shape.
   a. Solids
   b. Liquids
   c. Gases
34. In order for matter to change from one state to another, _________ must be added or removed.
   a. energy
   b. layers
   c. gravity

35. _________ occurs when we add enough energy that a solid changes directly into a gas without first becoming a liquid.
   a. Melting
   b. Sublimation
   c. Condensation

36. Evaporation occurs when a __________.
   a. liquid changes into a gas
   b. gas turns into a liquid
   c. solid becomes harder

37. If we add enough energy (in the form of heat) to a solid, it will _________ and become a liquid.
   a. melt
   b. change color
   c. freeze
38. If we take away enough energy from a gas, it will __________ into a liquid.
   a. freeze
   b. condense
   c. melt

39. If we take away enough energy from a liquid, it will __________ into a solid.
   a. freeze
   b. condense
   c. melt

40. As Junior Scientists, which of the following properties would you use to identify a mystery substance?

   - Mass ______
   - Volume_______
   - Density_______
   - Color_______
   - Odor_______
   - Electrical conductivity_______
   - Shape_______
   - Reactivity with water_______
   - Weight_______
   - Malleability_______
Now, go back and write a “P” or a “C” next to each intrinsic property in question 40, to indicate a “Physical” or “Chemical” property.