

ANSWER KEY:

VIDEO QUESTIONS: "CHANGES IN THE PROPERTIES OF MATTER: PHYSICAL AND CHEMICAL"

1. **matter** is anything that has mass, takes up space (volume), and has properties that can be observed.
2. **properties** are observable characteristics of a material or object.
3. **atoms** are the 'building blocks' of matter.
4. **physical properties** are properties that can be measured or observed without changing a material or object into something new. (choose one: *physical* or *chemical*)
5. **metals** 84 of the elements are classified as this (choose one: *metals* or *non-metals*)
6. **malleability** this property of metals is defined as "the ability to be pounded into sheets".
7. most metals are **shiny** (choose one: *shiny* or *dull*) and are **hard**
(choose one: *hard* or *brittle*), and are **good** conductors of energy (choose one: *good* or *bad*)
8. **non-metals** 1/4 of the elements are classified as this (choose one: *metals* or *non-metals*).
9. most non-metals are **dull** (choose one: *shiny* or *dull*) and are
brittle (choose one: *hard* or *brittle*), and are **bad** conductors of energy (choose one: *good* or *bad*)
10. **conductors** are materials, like metals, that conduct or pass along energy (such as heat or electricity) well.
11. **insulators** are materials, such as non- metals, that conduct or pass along energy (such as heat or electricity) poorly.
12. **chemical** properties describe matter's ability to combine to form new materials or substances (choose one: *physical* or *chemical*)
13. **combustibility** , or flammability, is the ability to burn, and is a chemical property.
14. **physical** changes are changes in the shape, size, or state of an object/material that do not change the composition of the object/material (choose one: *physical* or *chemical*)
15. **mixtures** consist of 2 or more parts that are blended together, but each part keeps its physical properties. Salads and trail mixes are examples of these.

16. **solutions** are very hard-to-separate mixtures that are evenly and completely blended. Sugar dissolved in water is an example of one of these.
17. **molecules** are particles that are too small to be seen.
18. **solubility** is the measure of the amount of a material that will dissolve in another material. This is a physical property.
19. **physical** changes are easier to reverse than **chemical** changes. (use each one once: *physical* and *chemical*)
20. **chemical** reactions occur when atoms re-arrange to form new substances with new and different properties (choose one: *physical* or *chemical*)
21. Formation of a gas, color changes, and the production of heat/light are all signals that a **chemical** change has occurred (choose one: *physical* or *chemical*)
22. Iron rusting is an example of a **chemical** change, as signaled by its changes in properties such as color, density, conductivity (choose one: *physical* or *chemical*)
23. **burning** is a chemical change because during this process, molecules in the substance (wood, for example) react with molecules in the air to form new substances (such as ash).
24. Digestion is considered a **chemical** change because your intestines change the food molecules into new substances with new and different properties (choose one: *physical* or *chemical*)
25. Dissolving is a **physical** change because the molecules DO NOT re-arrange to form new substances with new and different properties (choose one: *physical* or *chemical*)
26. Sometimes, signs of a chemical change are present, but no change occurs. State an example of this that was included in the video:

bubbles get produced but the gas is not new, color of a dissolved mixture changes, etc.