1. Sound, Chemical, Radiant (Radiation), Electrical, Atomic(Nuclear), Mechanical, Thermal
ENERGY UNIT

2. Kinetic and Potential
ENERGY UNIT

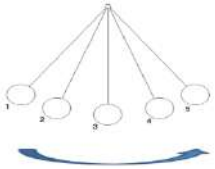
3. Kinetic energy is the energy of motion at either the atomic level or visible scale.
ENERGY UNIT

4. A factor needed to decrease GPE gravitiational potential energy is *height* or *mass.*
ENERGY UNIT

5. a. mass and speed
ENERGY UNIT

6. Cause an object to accelerate, which changes its speed or change the mass of an object.
think back to ->ENERGY UNIT

7. The center or middle position, #3?



ENERGY UNIT

8. This is due to what? friction

ENERGY UNIT

9. As a roller coaster crest the hill of the track it transforms gravitational potential energy into kinetic energy
ENERGY UNIT

10. Potential chemical energy stored in a battery is activated by the kinetic mechanical energy of your thumb by pressing down on a switch. Next the stored chemical energy is transformed into the kinetic energy of electricity down a wire to the light bulb. Here it is transformed again into light, which is a form of radiant energy.
ENERGY UNIT

List three or more in order:
mechanical -> chemical -> electrical -> radiant

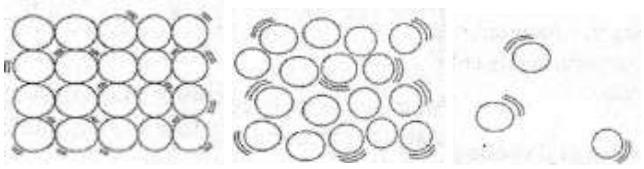
11. Coal is abundant but like all fossil fuels is finite on planet earth. Scarier still its, consumption to meet energy needs can be even more toxic and detrimental to the environment.
ENERGY UNIT

12. Solar, wind, geothermal, dams
ENERGY UNIT

13. D. All of the above
ENERGY UNIT

14. Gravitational, chemical, nuclear, elastic
ENERGY UNIT

1. Solid, liquid, gas



MATTER UNIT

2. This phase of matter is called a *liquid.*
MATTER UNIT

3. This phase of matter is called a *solid*.
MATTER UNIT

4. This phase of matter is called a *gas.*
MATTER UNIT

5. The volume decreases.
MATTER UNIT

6. The volume increases.
MATTER UNIT

7. The volume will decrease.
MATTER UNIT

8. The two big idea are that, all matter is made of particles (atoms, molecules or ions) and that these particles are always in motion.
MATTER UNIT

9. A change in state or phase is purely physical, not chemical.
MATTER UNIT

10. The first ***phase change*** is evaporation or vaporization as the water boils. The second ***phase change*** is condensation as the water is cooled in the condenser.
MATTER UNIT

11. Gas -> liquid: Kinetic energy of the matter decreases, meanwhile forces of attraction between molecules increases.

Gas -> solid: during deposition KE also decreases
MATTER UNIT

12. (*mixture*)
MATTER UNIT

13. (*compound*)
MATTER UNIT

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1. It flows from a source to a sink. From high KE to low KE.
Thermodynamics **HEAT UNIT**

2. Not really, because temperature is a measure only of degrees of heat.
Thermodynamics **HEAT UNIT**

3. Conduction
HEAT UNIT

4. Convection
HEAT UNIT

5. Radiant
HEAT UNIT

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1. A statement regarding a scientific problem or investigation which makes a prediction about possibly experimental outcomes is called a _____hypothesis_____.
Scientific Method

2. The variable that is measured, recorded, observed and/or studied during an experiment is referred to as the ____dependent____ variable.
Scientific Method

3. In an experiment we control as many factors as possible that might influence experimental results. We limit one variable between the experimental group and the control group which is called the _independent_ variable.
Scientific Method

4. A carefully thought out control is necessary in a scientific experiment.
Scientific Method

5. The **Stanford marshmallow** *experiment*s were a studies on delayed reward in the late 1960s by psychologist named Walter Mischel, a professor at Stanford University. In these studies, a child was offered a choice between one small reward provided immediately or two small rewards if they waited for a short period, approximately 15 minutes, during which the tester left the room and then returned. The control was the reward was always a marshmallow.

In follow-up studies, the researchers found that children who were able to wait longer for the preferred reward (two marsh mellows) tended to have better life outcomes, as measured by SAT scores, educational achievement, body mass index (BMI), and other life measures.

(Wikipedia, the free encyclopedia)

A little "*control"* goes a long way.

Oh and the control is important because, **scientific control** is an **experiment** helps to minimize the effects of variables other than the one single independent variable. It helps to assure we can say sometime significant about the validity of our results.
Scientific Method