

Name: _____ Date: _____ Period: _____

Science Final Review

1. Understand what the Scientific Method is about and how to use it to understand different scientific questions. **DON'T FORGET!!!**
2. List 3 conditions when you would be required to wear safety goggles during an 8th Grade Science experiment (we do not dissect in 8th Grade).
 - a. **Glass**
 - b. **Chemicals**
 - c. **Fire/Heat**
3. List the purpose of each type of equipment and what it measures.
 - a. **Graduated Cylinder: measure the volume of a liquid**
 - b. **Celsius Thermometer: measure the temperature**
 - c. **Meter Stick: measure the distance/length**
 - d. **Triple Beam Balance: measure the mass**
4. Write the definition and the metric unit for each of the following:
 - a. Volume: **the amount of space something takes up- mL, cm³**
 - b. Mass: **the amount of matter in an object-grams**
 - c. Temperature: **the presence or absence of heat-Degrees Celsius**
 - d. Density: **the ratio of mass to volume-g/mL or g/cm³**
 - e. Force: **the push or pull on an object-Newtons**
 - f. Work: **the ability to move an object using force-Joules**
5. What is the difference between potential and kinetic energy?
Potential Energy: energy that is stored

Kinetic Energy: energy that is in motion
6. What is the difference between a balanced force and an unbalanced force?
Balanced Force: when all forces acting on an object are equal in size.

Unbalanced Force: when all forces acting on an object are unequal in size.
7. Balanced forces cause objects to...
 - a. **stay at rest**
 - b. **stay at rest, but change shape**
 - c. **constant speed (in same direction)**
8. Unbalanced forces cause objects to...
 - a. **start**
 - b. **stop**
 - c. **slow down**
 - d. **speed up**
 - e. **change direction**
 - f. **change shape**

9. What is the formula for work? **Work = Force x Distance**

10. Define speed, velocity, and acceleration then write an example for each.

a. **Speed: how fast an object is moving (distance and time)**

b. **Velocity: how fast an object is moving in a specific direction (speed and direction)**

c. **Acceleration: when the speed or direction of an object changes**

11. What is the formula for speed? **Speed = Distance / Time**

12. KNOW HOW TO READ A DISTANCE-TIME GRAPH AND A SPEED-TIME GRAPH **Practice!!!**

13. What is Newton's 1st Law?

An object at rest stays at rest, an object in motion stays in motion, unless acted upon by an unbalanced force.

14. What is Newton's 2nd Law?

Force = mass x acceleration

15. What is Newton's 3rd Law?

For every action, there is an equal and opposite reaction.

16. Define density and write the formula for density.

Density is the measure of space of a particular mass of a substance $D=m/v$

17. Define weathering, erosion, and deposition.

a. Weathering: **breaking down of rocks**

b. Erosion: **moving of rocks**

c. Deposition: **settling/build up of rocks**

18. What is the continental drift theory and who proposed this theory?

The theory that states that parts of the Earth's crust drift atop a liquid core-Alfred Wegener

19. List 3 types of evidence to help support the continental drift theory?

1) continents fit like puzzle pieces

2) same fossils were found where pieces fit together

3) similar landforms found on each continent

20. What do the following stand for?

a. $A=P=E$ **Atomic Mass =Protons =Electrons**

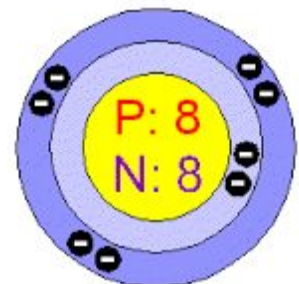
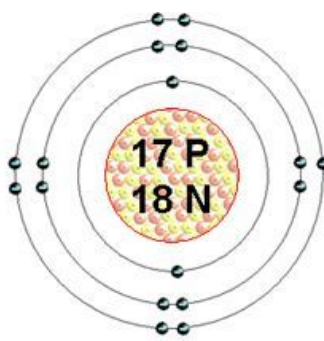
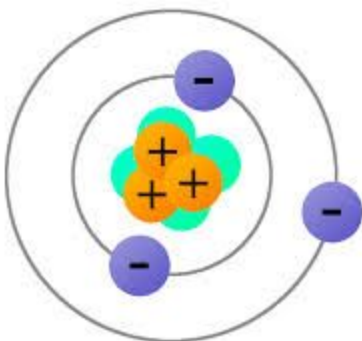
b. $M-A=N$ **Mass # - Atomic # = Neutrons**

21. Identify the following elements:





_____ **Lithium** _____

_____ **Chlorine** _____

_____ **Oxygen** _____



22. Fill in the table about the types of plate boundaries.

Type of Boundary	Sketch of Boundary	Direction of Movement	Types of Features
Divergent Plate Boundary		Away from each other	-sea floor spreading -rift valleys -mid ocean ridges -volcanoes
Transform Plate Boundary		Slides past each other	-earthquakes -fault lines
Convergent Plate Boundary (Collision)		Comes together and rises up	-mountains -volcanoes
Convergent Plate Boundary (Subduction)		Comes together and one plate goes under	-subduction -trenches

23. A topographical map shows-

- Earth's layers
- the mineral content of the rocks
- the shape of the Earth's surface**
- Earth's climate

24. Fill in the following chart:

	Charge	Location	AMU	Function/Role
Protons	Positive +	nucleus	1 AMU	Identify element
Electrons	Negative -	Electron cloud	Less than 1 AMU	Determine chemical properties
Neutrons	Neutral (no charge) +/-	nucleus	1 AMU	Give atom mass