

ACCELERATED PHYSICAL SCIENCE SUMMER ASSIGNMENT

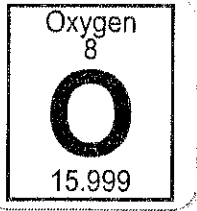
Description:

Students will complete an Accelerated Science Dictionary using terms necessary to understand the standards covered in class. The dictionary can only be completed in a composition notebook. You must hand write the dictionary. No typed dictionaries will be accepted. Dictionaries must be complete on or before Friday, August 9th.

Criteria:

1. The dictionary should be ordered and organized by standard.
2. All keywords should be alphabetized under each standard.
3. Each keyword should include a definition in your own words. DO NOT COPY A DEFINITION FROM GOOGLE. Read the definition, and put it in your own words.
4. Each keyword should include a picture related to the word OR a real life description of the word.
5. The point of this dictionary is to help you become acquainted with the terms that will be used over the course of the school year. At the end of the year, you will have an End-of-Course test that will count 20% of your average. Familiarizing yourself with these terms will help tremendously. This class will cover more material at a faster pace and be more difficult than 8th grade Physical Science. It will also count towards your high school grade point average. Please make sure you are prepared.
6. All of these terms relate to Physical Science, not any of the biological sciences.

Example:

Key Term	Definition (in your own words)	Related picture	Real life description
Element	A substance that cannot be broken down into anything simpler		The element oxygen is the most important element to a human's survival.

*You may have a related picture OR a real life description. Both ARE NOT required.

Useful website for science terms & everyday examples:

<http://www.worldofscience.in/dictionary.aspx>

DIRECTIONS FOR EACH SECTION:

- For each section, except for the radioactive section, you choose 10 terms to complete. Choose the terms with which you are the least familiar. When complete, you will have a total of 85 terms, 85 definitions in your own words, and 85 pictures OR real world descriptions.

Standards & Key Terms

SPS 1 (the atom & the periodic table)-22 terms

***YOU CHOOSE 10 OF THE TERMS TO COMPLETE.**

Alkali metal	Alkaline Earth metal	Atom
Atomic number	Atomic mass	Electron
Element	Energy levels	Groups (families)
Halogen	Isotope	Metals
Metalloid	Neutron	Noble gases
Nonmetals	Nucleus	Periodic table
Periods	Proton	Transition metals
Valence electrons		

SPS 2 (ionic vs covalent compounds) and SPS 3 (chemical reactions)-23 terms. *YOU CHOOSE 10 OF THE TERMS TO COMPLETE.

Anion	Binary compound	Cation
Chemical bond	Chemical change	Chemical equation
Chemical reaction	Chemical symbol	Coefficient
Compound	Conductivity	* Covalent compound
Decomposition reaction		
Double replacement reaction (displacement reaction)		
Ion	Ionic compound	Law of Conservation of Mass
Matter	Physical change	Prefix
Single replacement reaction (single displacement reaction)		
Subscript	Synthesis reaction	

SPS 4 (radioactivity) -5 terms

***YOU MUST COMPLETE ALL 5 TERMS.**

Half-life	Nuclear fission	Nuclear fusion
Nuclear reactions	Radioactive decay	

SPS 5 (phases of matter & gas laws) & 7.d (phase change diagrams)-18 Terms. *YOU CHOOSE 10 OF THE TERMS TO COMPLETE.

Boyles Law	Charles' Law	Condensation
Deposition	Evaporation	Freezing
Gas	Joule	Liquid
Melting	Plasma	Phase change
Phase change diagram		Pressure
Solid	Specific heat	Sublimation
Volume		

SPS 6 (solutions, acids & bases) - 12 terms

***YOU CHOOSE 10 OF THE TERMS TO COMPLETE.**

Acid	Base	Hydronium ions
Hydroxide ions	Litmus paper	Neutral pH
pH	pH scale	Solubility curve
Solute	Solution	Solvent

SPS 7 (energy & specific heat) - 16 terms

***YOU CHOOSE 10 OF THE TERMS TO COMPLETE.**

Chemical energy	Conduction	Conductor
Convection	Electrical energy	Electromagnetic energy
Energy	Energy transformation	Insulator
Kinetic energy	Mechanical energy	Nuclear energy
Potential energy	Radiation	Sound energy
Thermal energy		

SPS 8 (force, mass, & motion)-18 terms

***YOU CHOOSE 10 OF THE TERMS TO COMPLETE.**

Acceleration	Compound machine	Displacement
Distance	Force	Friction
Inertia	Mass	Mechanical advantage
Newton	Newton's 1 st Law of Motion	
Newton's 2 nd Law of Motion		Weight
Newton's 3 rd Law of Motion		Work
Simple machines	Speed	Velocity

SPS 9 (waves)-20 terms

***YOU CHOOSE 10 OF THE TERMS TO COMPLETE.**

Amplitude	Compression	Constructive interference
Crest	Destructive interference	Diffraction
Doppler Effect	Electromagnetic wave	Frequency
Hertz (Hz)	Longitudinal wave (compressional wave)	
Mechanical wave	Medium	Rarefaction
Reflection	Refraction	Transverse wave
Trough	Wave	Wavelength

SPS 10 (electricity & magnetism)-14 terms

***YOU CHOOSE 10 OF THE TERMS TO COMPLETE.**

Alternating current (AC)		Current
Direct current (DC)	Electric field	Electric motor
Electromagnet	Generator	Magnetic fields
Magnetism	Ohm's Law	Parallel circuit
Resistance	Series circuit	Voltage

Please direct any questions to the following emails:

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