

6) When the electrons of the atoms in a crystal are distributed so they belong to all the atoms in the crystal, the crystal is held together by

- | | |
|-------------------|-------------------|
| 1) ionic bonds | 3) metallic bonds |
| 2) covalent bonds | 4) macromolecules |
- 7) Which pH has the highest hydronium ion concentration?
- | | |
|------|-------|
| 1) 2 | 3) 12 |
| 2) 4 | 4) 10 |

8) Speed is measured in the unit

- | | |
|------|------------|
| 1) s | 3) m/s^2 |
| 2) m | 4) m/s |

9) What kind of reaction is the following?



- | | |
|-----------------------|-----------------------|
| 1) synthesis | 3) double replacement |
| 2) single replacement | 4) decomposition |

10) Which pH has the highest hydronium ion concentration?

- | | |
|------|-------|
| 1) 2 | 3) 12 |
| 2) 4 | 4) 10 |

PHYSICAL SCIENCE TOPICS

Energy & Motion - Part 1

Energy & Motion - Part 2

The Chemistry of Matter - Part 1

The Chemistry of Matter - Part 2

Energy: Sources and Issues

All the Topics

Gravity

Friction

Unit of Force

Mass

Weight

Force

Speed

Acceleration

Velocity

Falling Objects

Inertia

Air Resistance

Action & Reaction

Centripetal force

Laws of Motion - Application

Newton's First Law of Motion

Newton's Second Law of Motion

Momentum

Escape velocity

Weightlessness

Nature of Work

Unit of Work

Matter

Classes of Matter

Elements

Compounds

Crystals

Solids

Liquids

Gases

Plasma

Homogenous Mixtures

Heterogeneous Mixtures

Density

Specific Gravity - Specific Heat

Freezing/Melting Point

Boiling/Condensation Point

Physical Change

Physical Properties

Sublimation

Chemical Properties

Chemical Change

Atom - Nucleus

Atomic Number

Neutral Atoms

Atomic Mass

Energy Levels

Isotopes

Electrons

Ion Formation

Energy & Work
Potential Energy
Kinetic Energy
Conservation of Energy
Nature of Machines
Nature of Machines: Effort & Resistance
Nature of Machines: Input Work & Output Work
Nature of Machines: Efficiency
Machines: Mechanical Advantage
Power
Simple Machines
Levers - First Class
Levers - Second Class
Levers - Third Class
Compound Machine
Inclined Plane
Transverse Waves
Refraction
Reflection
Incident Ray
Frequency
Electromagnetic Energy
Light Energy
Types of Waves
Color
Speed of Light
Polarized Light
Interference
Reflection
Microscope
Telescopes
Stereo Microscope
Refraction
Optical Fibers
Plane Mirror
Concave Lens
Convex Lens
Types of Images: Movie Screen
Index of Refraction
Lasers
Radio Waves
Microwaves
X-Rays
Fluorescence
Uses - Ultraviolet and Infrared Waves
Matter & Heat
Particles & Kinetic Energy

Covalent Bonding
Chemical Bonds
Oxidation Number
Polyatomic Atoms
Macromolecule
Metallic Bond
Periodic Table
Periodic Table: Periods
Periodic Table: Families
Allotropes
Chemical Activity
Properties of Metals
Properties of Nonmetals
Metals - Corrosion
Noble Elements
Alkali & Alkali Earth Elements
Halogens
Alloys
Metalloids
Uses of Metals & Nonmetals
Transition Elements
Photoconductors
Pollution
Equations: Synthesis
Equations: Single Replacement
Equations: Double Replacement
Equations: Analysis
Exothermic Reactions
Endothermic Reactions
Catalysts
Chemical Symbols
Counting Atoms
Formulas
Formula Writing
Hydrate & Anhydrate Compounds
Binary Compounds
Chemical Equations
Balancing Equation
Gram Formula Mass
Gram Molecular Mass
Solutions

Expansion & Contraction of Materials
Vapor Pressure
Change of Phase
Direction of Phase Change
Temperature
Average Kinetic Energy of Particles
Temperature Change

Solution Process
Suspensions
Gas(Aqueous)
Equilibrium
Electrolytes
Dissociation
Unsaturated - Saturated - Supersaturated

Measurement of Temperature
Freezing Points
Direction of Heat Flow
Methods of Heat Flow
Insulation
Conduction
Radiation - Uses
Convection
Radiation
Insulators
Gay Lussac's Law
Charles's Law
Boyle's Law
Pressure
Unit of Pressure
Refrigeration & Heat Pumps
Magnets: Poles
Magnets: Attraction & Repulsion
Materials Attracted by Magnets
Electroscope
Static Electricity
Production of Static Electricity
Electrical Insulators
Characteristics of Electric Current
Types of Electric Current
Measuring Electric Power
Wet Cell
Ohm's Law
Parallel & Series Circuits
Transistors
Radar & TV
Integrated Circuits
Computers
Motion in a Magnetic Field
Magnetism: Electricity
Safety - Electricity
Radioactive Elements
Radioactive Isotopes
Radioactive Decay
Radiation Separation
Half Life of Radioactive Elements
Detection of Radioactivity
Fission
Fusion
Waves
Properties of Sound
Longitudinal(Compressional) Waves
Sound: Frequency
Sound: Range
Sound: Pitch
Impact
Doppler Effect
Sound Quality: Overtones
Amplitude of Sound Waves
Sound: Measurement
Technology
Absorption & Reflection

Factors Affecting Boiling &
Polar molecules
Acids
Neutralization
pH
Indicators
Acid & Basic Anhydrides
Bases
Colloids
Organic Compounds
Allotropes of Carbon
Silicon
Tin & Germanium
Alloys of Lead
Bonding in Organic Compounds
Hydrocarbons
Alkanes
Alkenes
Alkynes
Unsaturated Compounds
Isomers
Substitution Reactions
Alcohols
Organic Acids
Saponification - Esterification
Carbohydrates
Proteins
Polymers
Fats
Vitamins
Food Spoilage
Determines a Quantitative Relationship
Determines a Qualitative Relationship
Power Plants
Acid Rain
Air Pollution
Thermal Pollution
Land Pollution
Land Reclamation
Fossil Fuels
Oil
Natural Gas
Nonrenewable Resources
Solar Energy
Renewable Resources
Biomass
Wind Power
Nuclear Energy
Nuclear Power & Environmental
Geothermal Power
Tidal Power
Science and Technology
Relationship of Science and
Technology as a System

Sound: Music
Sound: Noise
Hearing Loss
Environment
Ultrasound
Technology/Society
Performs Numerical Calculations
Interpreting - Graphs/Tables/Diagrams
Graphs/Tables/Diagrams Part 1
Safety in the Laboratory
Graphs/Tables/Diagrams Pqrt 2
Laboratory Equipment
Use of Laboratory Tools
Household - Toxic Vapors
Household - Mixing Household Chemicals
Household - Aerosols
Health Practices & Household First Aids Rules
Household Chemicals: Tops on Containers

Technology in Use
Technology and Decision Making
Technology Processes or Devices -

Interaction of Science -

Making Decisions About Technology
Interpreting

Interpreting