



**3D**

**DIGITAL CONTENT**

**For Schools and Colleges**



**ACTIVE**

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## 7Active XII Digital Content

Subject	Duration	E Book Pages
Biology	13 Hours 21 Min	460
Physics	18 Hours 29 Min	436
Chemistry	18 Hours 9 Min	611
Total	49 Hours 59 Min	1507 pages

## 7Active XI Digital Content

Subject	Duration	E Book Pages
Biology	21 Hours 15 Min	562 pages
Physics	15 Hours 15 Min	370 pages
Chemistry	15 Hours 12 Min	479 pages
Total	51 Hours 42 Min	1411 pages

## 7Active X Digital Content

Subject	Duration	E Book Pages
Science	7 Hours 35 Min	250 pages

## 7Active Extra Science Content

Subject	Duration	E Book Pages
Biology	6 Hours 12 Min	250 pages
Physics	9 Hours 40 Min	410 pages
Chemistry	2 Hours 30 Min	95 pages
Total	18 Hours 22 Min	755 pages

## 7Active XII Biology Digital Content

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<b>CHAPTER 2</b>	<b>SEXUAL REPRODUCTION IN FLOWERING PLANTS</b>
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2.2	Pre-fertilisation : Structures and Events
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3.7	Parturition and Lactation
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## 7Active XII Physics Digital Content

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## 7Active XII Chemistry Digital Content

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3.3	Average velocity and average speed
3.4	Instantaneous velocity and speed
3.5	Acceleration
3.6	Kinematic equations for uniformly accelerated motion
3.7	Relative velocity
<b>CHAPTER 4</b>	<b>MOTION IN A PLANE</b>
4.1	Introduction
4.2	Scalars and vectors
4.3	Multiplication of vectors by real numbers
4.4	Addition and subtraction of vectors – graphical method
4.5	Resolution of vectors
4.6	Vector addition – analytical method
4.7	Motion in a plane
4.8	Motion in a plane with constant acceleration
4.9	Relative velocity in two dimensions
4.10	Projectile motion
4.11	Uniform circular motion
<b>CHAPTER 5</b>	<b>LAWS OF MOTION</b>
5.1	Introduction
5.2	Aristotle's fallacy
5.3	The law of inertia

Chapter No.	Chapter name
5.4	Newton's first law of motion
5.5	Newton's second law of motion
5.6	Newton's third law of motion
5.7	Conservation of momentum
5.8	Equilibrium of a particle
5.9	Common forces in mechanics
5.10	Circular motion
5.11	Solving problems in mechanics
<b>CHAPTER 6</b>	<b>WORK, ENERGY AND POWER</b>
6.1	Introduction
6.2	Notions of work and kinetic energy : The work-energy theorem
6.3	Work
6.4	Kinetic energy
6.5	Work done by a variable force
6.6	The work-energy theorem for a variable force
6.7	The concept of potential energy
6.8	The conservation of mechanical energy
6.9	The potential energy of a spring
6.10	Various forms of energy : the law of conservation of energy
6.11	Power
6.12	Collisions
<b>CHAPTER 7</b>	<b>SYSTEM OF PARTICLES AND ROTATIONAL MOTION</b>
7.1	Introduction
7.2	Centre of mass
7.3	Motion of centre of mass
7.4	Linear momentum of a system of particles
7.5	Vector product of two vectors
7.6	Angular velocity and its relation with linear velocity 1
7.7	Torque and angular momentum
7.8	Equilibrium of a rigid body
7.9	Moment of inertia
7.10	Theorems of perpendicular and parallel axes 1
7.11	Kinematics of rotational motion about a fixed axis
7.12	Dynamics of rotational motion about a fixed axis
7.13	Angular momentum in case of rotations about a fixed axis
7.14	Rolling motion
<b>CHAPTER 8</b>	<b>GRAVITATION</b>
8.1	Introduction
8.2	Kepler's laws
8.3	Universal law of gravitation 1
8.4	The gravitational constant
8.5	Acceleration due to gravity of the earth
8.6	Acceleration due to gravity below and above the surface of earth

Chapter No.	Chapter name
8.7	Gravitational potential energy
8.8	Escape speed
8.9	Earth satellite
8.10	Energy of an orbiting satellite
8.11	Geostationary and polar satellites
8.12	Weightlessness
<b>CHAPTER 9</b>	<b>MECHANICAL PROPERTIES OF SOLIDS</b>
9.1	Introduction
9.2	Elastic behaviour of solids
9.3	Stress and strain
9.4	Hooke's law
9.5	Stress-strain curve
9.6	Elastic moduli
9.7	Applications of elastic behaviour of materials
<b>CHAPTER 10</b>	<b>MECHANICAL PROPERTIES OF FLUIDS</b>
10.1	Introduction
10.2	Pressure
10.3	Streamline flow
10.4	Bernoulli's principle
10.5	Viscosity
10.6	Reynolds number
10.7	Surface tension
<b>CHAPTER 11</b>	<b>THERMAL PROPERTIES OF MATTER</b>
11.1	Introduction
11.2	Temperature and heat
11.3	Measurement of temperature
11.4	Ideal-gas equation and absolute temperature
11.5	Thermal expansion
11.6	Specific heat capacity
11.7	Calorimetry
11.8	Change of state
11.9	Heat transfer
11.10	Newton's law of cooling
<b>CHAPTER 12</b>	<b>THERMODYNAMICS</b>
12.1	Introduction
12.2	Thermal equilibrium
12.3	Zeroth law of thermodynamics
12.4	Heat, internal energy and work
12.5	First law of thermodynamics
12.6	Specific heat capacity
12.7	Thermodynamic state variables and equation of state
12.8	Thermodynamic processes
12.9	Heat engines

Chapter No.	Chapter name
12.10	Refrigerators and heat pumps
12.11	Second law of thermodynamics
12.12	Reversible and irreversible processes
12.13	Carnot engine
<b>CHAPTER 13</b>	<b>KINETIC THEORY</b>
13.1	Introduction
13.2	Molecular nature of matter
13.3	Behaviour of gases
13.4	Kinetic theory of an ideal gas
13.5	Law of equipartition of energy
13.6	Specific heat capacity
13.7	Mean free path
<b>CHAPTER 14</b>	<b>OSCILLATIONS</b>
14.1	Introduction
14.2	Periodic and oscillatory motions
14.3	Simple harmonic motion
14.4	Simple harmonic motion and uniform circular motion
14.5	Velocity and acceleration in simple harmonic motion
14.6	Force law for simple harmonic motion
14.7	Energy in simple harmonic motion
14.8	Some systems executing SHM
14.9	Damped simple harmonic motion
14.10	Forced oscillations and resonance
<b>CHAPTER 15</b>	<b>WAVES</b>
15.1	Introduction
15.2	Transverse and longitudinal waves
15.3	Displacement relation in a progressive wave
15.4	The speed of a travelling wave
15.5	The principle of superposition of waves
15.6	Reflection of waves
15.7	Beats
15.8	Doppler effect

## 7Active XI Chemistry Digital Content

Chapter No.	Chapter name
<b>CHAPTER 1</b>	<b>SOME BASIC CONCEPTS OF CHEMISTRY</b>
1.1	Importance of Chemistry
1.2	Nature of Matter
1.3	Properties of Matter and their Measurement
1.4	Uncertainty in Measurement
1.5	Laws of Chemical Combinations
1.6	Dalton's Atomic Theory
1.7	Atomic and Molecular Masses
1.8	Mole concept and Molar Masses
1.9	Percentage Composition
1.10	Stoichiometry and Stoichiometric Calculations
<b>CHAPTER 2</b>	<b>STRUCTURE OF ATOM</b>
2.1	Sub-atomic Particles
2.2	Atomic Models
2.3	Developments Leading to the Bohr's Model of Atom
2.4	Bohr's Model for Hydrogen Atom
2.5	Towards Quantum Mechanical Model of the Atom
2.6	Quantum Mechanical Model of Atom
<b>CHAPTER 3</b>	<b>CLASSIFICATION OF ELEMENTS AND PERIODICITY IN PROPERTIES</b>
3.1	Why do we need to Classify Elements ?
3.2	Genesis of Periodic Classification
3.3	Modern Periodic Law and the present form of the Periodic Table
3.4	Nomenclature of Elements with Atomic Number
3.5	Electronic Configurations of Elements and the Periodic Table
3.6	Electronic Configurations and Types of Elements:s, p, d, f-Blocks
3.7	Periodic Trends in Properties of Elements
<b>CHAPTER 4</b>	<b>CHEMICAL BONDING AND MOLECULAR STRUCTURE</b>
4.1	Kossel-Lewis Approach to Chemical Bonding
4.2	Ionic or Electrovalent Bond
4.3	Bond Parameters
4.4	The Valence Shell Electron Pair Repulsion (VSEPR) Theory
4.5	Valence Bond Theory
4.6	Hybridisation
4.7	Molecular Orbital Theory
4.8	Bonding in Some Homonuclear Diatomic Molecules
4.9	Hydrogen Bonding
<b>CHAPTER 5</b>	<b>STATES OF MATTER</b>
5.1	Intermolecular Forces
5.2	Thermal Energy

Chapter No.	Chapter name
5.3	Intermolecular Forces vs Thermal Interactions
5.4	The Gaseous State
5.5	The Gas Laws
5.6	Ideal Gas Equation
5.7	Kinetic Molecular Theory of Gases
5.8	Behaviour of real gases: Deviation from Ideal Gas Behaviour
5.9	Liquifaction of Gases
5.10	Liquid State
<b>CHAPTER 6</b>	<b>THERMODYNAMICS</b>
6.1	Thermodynamic State
6.2	Applications
6.3	Measurement of $f\phi U$ and $f\phi H$ : Calorimetry
6.4	Enthalpy Change, $f\phi rH$ of a Reaction
6.5	Enthalpies for Different Types of Reactions
6.6	Spontaneity
6.7	Gibbs Energy Change and Equilibrium
<b>CHAPTER 7</b>	<b>EQUILIBRIUM</b>
7.1	Equilibrium in Physical Processes
7.2	Equilibrium in Chemical Processes . Dynamic Equilibrium
7.3	Law of Chemical Equilibrium and Equilibrium Constant
7.4	Homogeneous Equilibria
7.5	Heterogeneous equilibria
7.6	Applications of Equilibrium Constants
7.7	Relationship between Equilibrium Constant K, Reaction Quotient Q and Gibbs Energy G
7.8	Factors Affecting Equilibria
7.9	Ionic Equilibrium in Solution
7.10	Acids, Bases and Salts
7.11	Ionization of Acids and Bases
7.12	Buffer Solutions
7.13	Solubility Equilibria of Sparingly Soluble Salts
<b>CHAPTER 8</b>	<b>REDOX REACTIONS</b>
8.1	Classical Idea of Redox Reactions-Oxidation and Reduction Reactions
8.2	Redox Reactions in Terms of Electron Transfer Reactions
8.3	Oxidation Number
8.4	Redox Reactions and Electrode Processes
<b>CHAPTER 9</b>	<b>HYDROGEN</b>
9.1	Position of Hydrogen in the Periodic Table
9.2	Dihydrogen, H <sub>2</sub>
9.3	Preparation of Dihydrogen, H <sub>2</sub>
9.4	Preparation of Dihydrogen, H <sub>2</sub>
9.5	Properties of Dihydrogen

Chapter No.	Chapter name
9.6	Hydrides
9.7	Water
9.8	Hydrogen Peroxide (H <sub>2</sub> O <sub>2</sub> )
9.9	Heavy Water, D <sub>2</sub> O
9.10	Dihydrogen as a Fuel
<b>CHAPTER 10</b>	<b>THE S-BLOCK ELEMENTS</b>
10.1	Group 1 Elements: Alkali Metals
10.2	General Characteristics of the Compounds of the Alkali Metals
10.3	Anomalous Properties of Lithium
10.4	Some Important Compounds of Sodium
10.5	Biological Importance of Sodium and Potassium
10.6	Group 2 Elements : Alkaline Earth Metals
10.7	General Characteristics of Compounds of the Alkaline Earth Metals
10.8	Anomalous Behaviour of Beryllium
10.9	Some Important Compounds of Calcium
10.10	Biological Importance of Magnesium and Calcium
<b>CHAPTER 11</b>	<b>THE P-BLOCK ELEMENTS</b>
11.1	Group 13 Elements: The Boron Family
11.2	Important Trends and Anomalous Properties of Boron
11.3	Some Important Compounds of Boron
11.4	Uses of Boron and Aluminium and their Compounds
11.5	Group 14 Elements: The Carbon Family
11.6	Important Trends and Anomalous Behaviour of Carbon
11.7	Allotropes of Carbon
11.8	Some Important Compounds of Carbon and Silicon
<b>CHAPTER 12</b>	<b>ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES AND TECHNIQUES</b>
12.1	General Introduction
12.2	Tetravalence of Carbon: Shapes of Organic Compounds
12.3	Structural Representations of Organic Compounds
12.4	Classification of Organic Compounds
12.5	Nomenclature of Organic Compounds
12.6	Isomerism
12.7	Fundamental Concepts in Organic Reaction Mechanism
12.8	Methods of Purification of Organic Compounds
12.9	Qualitative Analysis of Organic Compounds
12.10	Quantitative Analysis
<b>CHAPTER 13</b>	<b>HYDROCARBONS</b>
13.1	Classification
13.2	Alkanes
13.3	Alkenes
13.4	Alkynes

Chapter No.	Chapter name
13.5	Aromatic Hydrocarbon
13.6	Carcinogenicity and Toxicity
<b>CHAPTER 14</b>	<b>ENVIRONMENTAL CHEMISTRY</b>
14.1	Environmental Pollution
14.2	Atmospheric Pollution
14.3	Water Pollution
14.4	Soil Pollution
14.5	Industrial Waste
14.6	Strategies to control Environmental Pollution
14.7	Green Chemistry



ACTIVE



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Unit	Unit Name
<b>UNIT 1</b>	<b>CHEMICAL REACTIONS AND EQUATIONS</b>
1.1	Activity 1
1.2	Activity 2
1.3	Activity 3
1.4	<b>Balanced chemical equations</b>
<b>1.5</b>	Let us balancing equation for activity 1
1.6	Types of chemical reactions
1.7	combination reaction
1.8	Decomposition reaction
1.9	Displacement reaction
1.10	<b>Double displacement reaction</b>
<b>1.11</b>	Oxidation-reduction
1.12	Effects of oxidation reactions in everyday life
<b>UNIT 2</b>	<b>ACIDS, BASES AND SALTS</b>
2.1	Understanding the chemical properties of acids and bases
2.2	How do acids and bases react with metals
2.3	How do metal carbonates and metal hydrogen carbonates react with acids
2.4	How do Acids and Bases react with each other
2.5	Reaction of Metallic oxides with Acids
2.6	What do all acids and all bases have in common
2.7	What Happens to an Acid or a Base in a Water Solution
2.8	How strong are acid or base solution
2.9	Importance of pH in Everyday Life
2.10	Salts
2.11	Chemicals from common salt
2.12	Baking soda preparation
2.13	Are the Crystals of Salts really Dry
<b>UNIT 3</b>	<b>METALS AND NON-METALS</b>
3.1	Physical Properties
3.2	Chemical Properties of metals
3.3	How do Metals and Non-metals react?
3.4	Occurrence of Metals
3.5	Corrosion
<b>UNIT 4</b>	<b>CARBON AND ITS COMPOUNDS</b>
4.1	Bonding in carbon – the covalent bond
4.2	Versatile nature of carbon
4.3	Saturated and Unsaturated Carbon Compounds
4.4	Nomenclature of Carbon Compounds
4.5	Chemical properties of carbon compounds
4.6	Some important carbon compounds – ethanol and ethanoic acid

Unit	Unit Name
4.7	Soaps and detergents
<b>UNIT 5</b>	<b>PERIODIC CLASSIFICATION OF ELEMENTS</b>
5.1	Making order out of chaos – early attempts at the classification of elements
5.2	Making order out of chaos – mendeléev's periodic table
5.3	Making order out of chaos – the modern periodic table
<b>UNIT 6</b>	<b>LIFE PROCESSES</b>
6.1	What are life processes?
6.2	Nutrition
6.3	Respiration
6.4	Transportation
6.5	Excretion
<b>UNIT 7</b>	<b>CONTROL AND COORDINATION</b>
7.1	Animals – nervous system
7.2	Coordination in plants
7.3	Hormones in animals
<b>UNIT 8</b>	<b>HOW DO ORGANISMS REPRODUCE?</b>
8.1	Do organisms create exact copies of themselves?
8.2	Modes of reproduction used by single organisms
8.3	Sexual reproduction
<b>UNIT 9</b>	<b>HEREDITY AND EVOLUTION</b>
9.1	Accumulation of variation during reproduction
9.2	Heredity
9.3	Evolution
9.4	Speciation
9.5	Evolution and classification
9.6	Evolution should not be equated with 'progress'
<b>UNIT 10</b>	<b>LIGHT – REFLECTION AND REFRACTION</b>
10.1	10.1 Reflection of light
10.2	10.2 Spherical mirrors
10.3	10.3 Refraction of light
<b>UNIT 11</b>	<b>THE HUMAN EYE AND THE COLOURFUL WORLD</b>
11.1	The human eye
11.2	Defects of vision and their correction
11.3	Refraction of light through a prism
11.4	Dispersion of white light by a glass prism
11.5	Atmospheric refraction
11.6	Scattering of light
<b>UNIT 12</b>	<b>ELECTRICITY</b>
12.1	Electric current and circuit
12.2	Electric potential and potential difference
12.3	Circuit diagram
12.4	Ohm's law

Unit	Unit Name
12.5	Factors on which the resistance of a conductor depends
12.6	Resistance of a system of resistors
12.7	Heating effect of electric current
12.8	Electric power
<b>UNIT 13</b>	<b>MAGNETIC EFFECTS OF ELECTRIC CURRENT</b>
13.1	Magnetic field and field lines
13.2	Magnetic field due to a current-carrying conductor
13.3	Force on a current-carrying conductor in a magnetic field
13.4	Electric motor
13.5	Electromagnetic induction
13.6	Electric generator
13.7	Domestic electric circuits
<b>UNIT 14</b>	<b>SOURCES OF ENERGY</b>
14.1	What is a good source of energy?
14.2	Conventional sources of energy
14.3	Alternative or non-conventional sources of energy
14.4	Environmental consequences
14.5	How long will an energy source last us?
<b>UNIT 15</b>	<b>OUR ENVIRONMENT</b>
15.1	What happens when we add our waste to the environment?
15.2	Eco-system — what are its components?
15.3	How do our activities affect the environment?
<b>UNIT 16</b>	<b>MANAGEMENT OF NATURAL RESOURCES</b>
16.1	Why do we need to manage our resources?
16.2	Forests and wild life
16.3	Water for all
16.4	Coal and petroleum
16.5	An overview of natural resource management

## List of Extra Topics in Science

### 7Active Biology Digital Content

Chapter No.	Chapter name
<b>CHAPTER 1</b>	<b>TISSUES</b>
	Plant tissue - Merismatic tissue
	Plant tissue - Permanent tissue
	Plant tissue - Parenchyma
	Plant tissue - Collenchyma
	Plant tissue - Sclerenchyma
	Plant tissue - Xylem
	Plant tissue - Phloem
	Animal Tissue - Epithelial tissue
	Animal Tissue - Connective tissue
	Animal Tissue - Muscle tissue - Striated, Non-striated and Cardiac muscle
	Nervous tissue - Structure of nerve cell
<b>CHAPTER 2</b>	<b>MUSCULO - SKELETAL SYSTEM</b>
	Muscular System
	Facial and Thoracic Muscles
	Functions of Muscles
	Significant Muscles, Their Location and Movement
	Skeletal System - Axial
	Skeletal System - Appendicular
	Bones - Number and Functions
<b>CHAPTER 3</b>	<b>REPRODUCTION</b>
	Asexual Reproduction - Binary fission, Multiple fission, Budding, Gemmules, Spore and Cyst formation and Regeneration
	Sexual Reproduction - Human Reproductive system
	Sexual Reproduction - Fertilisation
	Sexual Reproduction - Development of embryo
	Sexual Reproduction - Oviparous animals
	Sexual Reproduction - Viviparous animals
<b>CHAPTER 4</b>	<b>POLLUTION</b>
	Noise pollution - Sources, Effects and Control measures
	Science Today - Oil Spill
<b>CHAPTER 5</b>	<b>DIVERSITY IN LIVING ORGANISMS</b>
	Basis of Classification (include connection between classification and evolution) and Nomenclature (why classification is needed)
	The Hierarchy of Classification - Groups

Chapter No.	Chapter name
	Kingdom - Monera
	Kingdom - Protista
	Kingdom - Fungi
<b>CHAPTER 6</b>	<b>HIV/AIDS</b>
	Changes in the Adolescence stage
	Life Skills
	Introduction to HIV
	What Is AIDS , How It is Transmitted
	Prevention, Tests , Awareness
<b>CHAPTER 7</b>	<b>THE LUNGS</b>
	The lungs
<b>CHAPTER 8</b>	<b>HETEROTROPHIC NUTRITION</b>
	Parasites (Can be taken from Trihedron Autotropic and Heterotrophic Nutrition M7)
	Saprophytes (Can be taken from Trihedron Autotropic and Heterotrophic Nutrition M7)
	Heterotrophic Nutrition in Amoeba
	Digestive system in Human
	Organs of Digestion
	How Digestion Takes Place
	Digestive Enzymes in the Mouth and Stomach
	Digestive Enzymes in the Duodenum
	Digestion and Absorption in the Ileum
<b>CHAPTER 9</b>	<b>HUMAN RESPIRATION</b>
	Comparison of Photosynthesis and Respiration(One screen needs to be added)
<b>CHAPTER 10</b>	<b>COORDINATION IN PLANTS</b>
	Plant growth substances
	Auxins
	Gibberellins
	Cytokinins
	Abscisic acid
	Ethylene
<b>CHAPTER 11</b>	<b>ASEXUAL REPRODUCTION IN PLANTS</b>
	Asexual Reproduction - Budding, Sporulation and Fragmentation
<b>CHAPTER 12</b>	<b>SEXUAL REPRODUCTION IN PLANTS</b>
	Flower and Its Parts
	Formation of Male Gametes
	Formation of Female Gametes
	Pollination and Fertilisation

Chapter No.	Chapter name
	Embryo
	Formation of fruit and seed
<b>CHAPTER 13</b>	<b>ASEXUAL REPRODUCTION</b>
	Binary fission and Multiple fission in Amoeba
<b>CHAPTER 14</b>	<b>SEXUAL REPRODUCTION IN ANIMALS</b>
	Reproduction - Paramecium, Earthworm, Housefly, Frog
<b>CHAPTER 15</b>	<b>HUMAN REPRODUCTIVE SYSTEM</b>
	Male and Female Reproductive Systems
	Ovulation and Menstrual Cycle
	Fertility Control and Small Family Norm
<b>CHAPTER 16</b>	<b>CONVENTIONAL SOURCES OF ENERGY</b>
	1) Energy - Sources
	2) Conventional Sources of Energy - Fossil Fuels ( include one screen about Thermal Power Plants)
	3) Conventional Sources of Energy - Hydro Power Plants
	4) Improvement in Technology in Conventional Sources of Energy - Biomass
	5) Improvement in Technology in Conventional Sources of Energy - Wind Energy
<b>CHAPTER 17</b>	<b>ALTERNATIVE OR NON CONVENTIONAL SOURCES OF ENERGY</b>
	6) Alternative Sources of Energy - Solar Energy
	7) Alternative Sources of Energy - Energy from the Sea
	8) Geothermal Energy and Nuclear Energy
<b>CHAPTER 18</b>	<b>PLANT TISSUE</b>
	Meristematic tissues
	Permanent tissues
<b>CHAPTER 19</b>	<b>SIMPLE PERMANENT TISSUE</b>
	Parenchyma
	Collenchyma
	Sclerenchyma
	Epidermal Tissue
<b>CHAPTER 20</b>	<b>COMPLEX PERMANENT TISSUE</b>
	Xylem
	Phloem
<b>CHAPTER 21</b>	<b>ANIMAL TISSUE</b>
	Epithelial tissue
	Muscular tissue -Unstriated Muscles, Striped Muscles and Cardiac Muscles
	Connective tissues -Loose, Dense and Fluid Connective tissue
<b>CHAPTER 22</b>	<b>INTERDEPENDENCE OF PLANTS AND ANIMALS</b>
	Abiotic and Biotic components

Chapter No.	Chapter name
	Food chain and food web
<b>CHAPTER 23</b>	<b>THE ROLE OF OXYGEN</b>
	The Role of Oxygen(Take from module Factors controlling respiration)
<b>CHAPTER 24</b>	<b>BLOOD GROUPS AND IMPORTANCE OF BLOOD DONATION</b>
	Donor and Recipients blood group
	Blood Transfusion Process
	Importance of Blood Donation
<b>CHAPTER 25</b>	<b>DEFICIENCY DISEASE - MALNUTRITION</b>
	Short term and Long term effects of malnutrition
	Different types of malnutrition in children
	Kwashiorkor
	Marasmus
	Obesity
<b>CHAPTER 26</b>	<b>VITAMINS - SOURCE AND DEFICIENCY</b>
	Vitamin B complex
	Thiamine
	Riboflavin
	Niacin
	Pyridoxine
	Folic acid
	Cyanocobalamin
	Pantothenic acid
	Biotin
	Vitamin C
	Vitamin A
	Vitamin D
	Vitamin E
	Vitamin K
<b>CHAPTER 27</b>	<b>PROCESS OF DISEASE</b>
	Infection
	Incubation
	Manifestation
	Termination
<b>CHAPTER 28</b>	<b>PROTOZOAN DISEASE</b>
	Life cycle of Malarial parasite - Plasmodium (Can be taken from Trihedron Autotrophic and Heterotrophic Nutrition M7)
	Amoebic Dysentery - Causative agent,Symptoms,Transmission, Prevention and control
<b>CHAPTER 29</b>	<b>FUNGAL DISEASES</b>
	Ringworm - Symptoms, Transmission,Prevention and control

Chapter No.	Chapter name
<b>CHAPTER 30</b>	<b>JAUNDICE</b>
	Causative agent, Symptoms, Prevention and control
<b>CHAPTER 31</b>	<b>AIDS</b>
	AIDS - Virus Structure , Symptoms
	Transmission of AIDS and Prevention
<b>CHAPTER 32</b>	<b>FIRST AID</b>
	First Aid for Drowning
	Bleeding
	Eye
	Unconsciousness
	Heart attack
	Burns
	Swallowing poison
	Snake bite
	Stinging
	Artificial Breathing
	First Aid for Fractures
<b>CHAPTER 33</b>	<b>HEALTH AGENCIES - HOSPITALS</b>
	Rural health care and Urban Health care
	Eradication of blindness
<b>CHAPTER 34</b>	<b>ENVIRONMENTAL CONSEQUENCES</b>
	9) Environmental Consequences and Depletion of Energy Sources
<b>CHAPTER 35</b>	<b>ECO - SYSTEM -- WHAT ARE ITS COMPONENTS ?</b>
	1) Components of an Ecosystem (introduce with what happens when waste is added to the environment and what is an eco-system)
	2) Food Chains and Webs
<b>CHAPTER 36</b>	<b>ACTIVITIES AFFECTING THE ENVIRONMENT</b>
	3) How Our Activities Affect Our Environment ( include environmental protection also)
<b>CHAPTER 37</b>	<b>BIOGEOCHEMICAL CYCLES</b>
	Biogeochemical Cycles - Introduction
	Carbon Cycle
	Nitrogen Cycle
	Oxygen cycle
	Phosphorus cycle
<b>CHAPTER 38</b>	<b>ENVIRONMENTAL POLLUTION</b>
	Air Pollution - Causes , Effects and Control
	Water Pollution - Causes and Effects
	Ganga Pollution

Chapter No.	Chapter name
	Sewage and Treatment
	Domestic practices
	Sanitation and diseases
	Alternative arrangement for sewage disposal
	Sanitation in Public places
	Soil and Noise Pollution

## 7 Active Physics Digital Content

Chapter No.	Chapter name
<b>CHAPTER 1</b>	<b>FORCE AND MOTION</b>
	Concept of Motion
	Motion Along a Straight Line
	Displacement, Speed and Velocity
	Uniform and Non-Uniform Motion Along a Straight Line
	Acceleration
<b>CHAPTER 2</b>	<b>GRAVITY</b>
	Gravitational Force
	Acceleration Due to Gravity
	Variation of "g" on Earth
	Equations of Motion of Bodies Moving under the Influence of Gravitational Force
	Newton's Universal Law of Gravitation
	Importance of the Universal Law of Gravitation
	Mass and Weight
	Weight of an Object on the Moon
	Free Fall
	Kepler's Laws of Planetary Motion
<b>CHAPTER 3</b>	<b>SOURCES OF ENERGY</b>
	Energy Crisis
	Renewable Sources of Energy
	Nuclear Energy
<b>CHAPTER 4</b>	<b>WHEEL AND AXLE</b>
	Introduction
	Principle of Wheel and Axle - Mechanical Advantage
	Application and Uses
<b>CHAPTER 5</b>	<b>SCREW JACK</b>
	<b>Introduction</b>
	Description and Pitch of the Screw
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