VIDYA PRATISHTHAN'S NEW BAL VIKAS MANDIR PIMPLI - BARAMATI
Annual Curriculum Plan 2025-2026
Subject- Science

Std- IX

Topic No. of Periods Month	Learning Outcomes	Assessment tools	Teaching Learning Strategies/ Activities	Resources	Inter-disciplinary
First Term (April 2025 - September 2025)					
Physics **Topic: Motion** **Sub-topics:** i)Uniform and non-uniform motion ii)Speed with direction iii)Rate of change of velocity iv)Graphical representation of motion v)Uniform circular motion No. of Periods: 11 Month: April	i)Students will be able to describe motion along a straight line, explain and differentiate between speed and velocity as well as uniform and non-uniform motion. Students will learn how to draw a distance-time graph and derive the equations of motion.	**Multiple Assessment Activity**	**Experiential Learning:** Ball Down a Ramp:a ball will roll down a ramp. Students can measure the time it takes to travel different distances and calculate its acceleration, explain the concept of acceleration.	Physics textbook by Lakhmir Singh and Manjit Kaur	Creativity Active learning, Problem solving

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Chemistry **Topic:** Matter in our surroundings **Sub-topics:** i. Physical Nature of Matter ii. Characteristics of Particles of Matter iii. States of Matter **No. of Periods:** 11 **Month**: April	**Students will be able to:** i.understand the particle nature of matter and it's characteristics .ii. compare the states of matter based on different parameters.	**Concept Map**	**Concept Map:** States of Matter	i. NCERT Textbook ii. Sample of Concept Map iii. Chemistry Lab	**Art**
(Biology) **Topic:** The Fundamental Unit of Life (5.1 and 5.2.4) **Sub-topics:** **i.** What are Living Organisms Made Up of? ii. What is a Cell Made Up of? iii. Plant Cell and Animal cell iii. Cell Membrane iv. Cell Wall v. Nucleus vi. Cytoplasm **No. of Periods:** 9 **Month:** April	**Students will be able to:** i. study the structural organization of a cell. ii. learn the structure and functions of different cell organelles such as plasma membrane, nucleus, cytoplasm etc. iii. learn to differentiate between: Plant cell and Animal cell.	Lab Activity	**Lab Activity:** To prepare stained temporary mount of onion peel and to record the observations.	i. NCERT Textbook ii. Biology Lab	Life Skills : Critical thinking skills, Visual Perceptual skill

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Physics Topic: Forces and laws of motion Sub-topics: i)Balanced and unbalanced forces ii)Newton's three laws of motion iii)Inertia and mass iv)Momentum No. of Periods: 7 Month: June	Students will be able to differentiate between (a) Balanced and Unbalanced forces (b) Action and Reaction forces Students will understand the concepts of mass and inertia. They will also explain the law of conservation of Momentum.	**Multiple Assessment Activity:** Worksheet on numericals	**Experienrial learning:** i)flicking a card under a coin (inertia),ii)observing a filled glass tumbler on a tray (inertia and Newton's laws),	i. NCERT Textbook ii)Inclined plane in School's Science park	Active learning Ability to lead and work with team Problem solving
Chemistry **Topic:** Matter in our surroundings **Sub-topics:** i. Can Matter Change its State? ii. Evaporation **No. of Periods:** 11 **Month**: June	**Students will be able to:** i. summarize the states of matter, ii. Describe the concept of latent heat of fusion and vapourisation and the effect of change of pressure. ii. discuss the factors affecting evaporation.	**Lab activity**	**Lab activity:** Determination of the melting point of ice and the boiling point of water.	i. NCERT Textbook ii. Chemistry Lab	Life Skills : Art, Presentation, Critical thinking skills, Visual Perceptual skill

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Biology **Topic:** The Fundamental Unit of Life (5.2.5 and 6.1) **Sub-topics:** i. Cell Organelles- Endoplasmic Reticulum, Golgi Apparatus, Lysosomes, Mitochondria, Plastids,Vacuoles ii. Cell division **No. of Periods:** 8 **Month:** June	**Students will be able to:** i. learn the structure and functions of different cell organelles such as plastids, endoplasmic reticulum, Mitochondria etc. ii. differentiate between: Mitosis and Meiosis	Multiple Assessment Activity	Multiple Assessment Activity: Draw a neat and labelled diagram of: Plant cell and Animal cell	i. NCERT Textbook ii. Biology Lab	Life Skills : Art, Presentation, Critical thinking skills, Visual Perceptual skill
Pre- Mid Examination, July 2025					
Physics **Topic: Gravitation** **Sub-topics:** i)Universal law of gravitation ii)Mass and weight iii)Thrust and pressure iv)Archemedes' principle No. of Periods: 6 Month: July	i. Students will learn the concept of gravitation. ii. Students will be able to explain the universal law of gravitation. iii. Students will learn to calculate the value of acceleration due to gravity (g).	**Multiple Assessment Activity and Lab Activity**	**Lab Activity :** i)To study Archemedes' principle ii)experimenting with buoyancy in water using an empty bottle and an iron nail.	i)NCERT textbook Physics textbook by Lakhmir Singh and Manjit Kaur	Critical thinking and analytical thinking, Research Applications in day today life

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Chemistry **Topic:** Is Matter Around Us Pure? [2.1 and 2.2] **Sub-topics:** i. What is a mixture? ii. What is a solution? **No. of Periods:** 7 **Month**: July	**Students will be able to:** i. learn about the different types of mixtures, solutions and suspensions. ii. understand the properties of mixtures, solutions and suspensions.	Multiple Assessment Activity	**Multiple Assessment Activity:** Write down the properties of solution, suspension and colloid in a tabular form creatively.	i. NCERT Textbook ii.Chemistry Lab	**Life Skills-** Art, Problem Solving, Creative thinking
(Biology) **Topic:** Tissues (6.1 and 6.2.2) **Sub-topics:** i. Are Plants and Animals Made of Same Types of Tissues? ii. Plant Tissues- Meristematic Tissue, Permanent Tissue, Simple Permanent Tissue, Complex Permanent Tissue **No. of Periods:** 9 **Month:** July	Students will be able to: i. learn about different types of plant tissues such as meristematic tissues, permanent tissues etc. ii. learn to draw a well labelled diagram of: Parenchyma, Collenchyma and Sclerenchyma.	Experiential Learning Activity	**Experiential Learning Activity:** Students will collect a plant stem and prepare slide of T.S. of a stem and observe different types of cells and their arrangement under the microscope.	Educational Video Tata Classedge	***Life Skills-** Critical Thinking, Communication skills, Decision making

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Physics Topic: Work and energy Sub-topics: i)Work ii)Energy iii)Kinetic energy iv)Potential energy v)Law of conservation of energy No. of Periods: 6 Month: August	Students will be able to - i)calculate weight of an object on the moon. ii) differentiate between mass and weight.	**Multiple Assessment Activity**	**Multiple Assessment Activity:** Students will identify the type of energy stored in the following cases: eg.stretched rubber band, a wound-up toy car, moving car, a running person, a falling object.	NCERT textbook Physics Wallah you tube videos	Life Skills- Responsibilities Respect to the nature Critical thinking

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Chemistry **Topic:** Is Matter Around Us Pure? [2.3 and 2.4] **Sub-topics:** i. Physical and Chemical Changes ii. What are the Types of Pure Substances? **No. of Periods:** 6 **Month**: August	**Students will be able to:** i. understand the physical and chemical changes and types of pure substances. ii. differentiate between mixtures and compounds	**Lab Activity**	**Lab Activity :** i. To prepare a true solution/ suspension/ colloid using the materials provided. ii. To prepare a mixture and a compound using Iron filings and Sulphur powder and distinguishbetween them on the basis of their properties. Iii. To carry out different chemical reactions and record the observations.	i. Tata Class Edge ii.Chemistry Lab	**21st Century Skills:** Communication skills, Problem solving. Perseverance. Information literacy. Technology skills and digital literacy.

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(Biology) **Topic:** Tissues (6.3 and 6.3.4) **Sub-topics:** i. Animal Tissues- Epithelial Tissue, Connective Tissue, Muscular Tissue, Nervous Tissue **No. of Periods:** 8 **Month:** August	Students will be able to: i. learn about different types of animal tissues such as epithelial tissues, muscular tissues etc. ii. differentiate between the structure and functions of animal and plant tissues.	Lab Activity and Multiple Assessment Activity	Lab Activity - i. To study different types of tissues with the help of permanent slide. **Multiple Assessment Activity:** ii. Concept Map: Plant Tissues iii. Draw a neat and labelled diagram of: Nerve cell	i. NCERT Textbook ii. Biology Lab	*__Life Skills-__ Problem Solving, Creative thinking, Visual perceptual skill
Mid Term Examination, September 2025					
Physics **Topic: Sound (12.1 to 12.3)** Sub-topics: i)How sound is produced ii)Characteristics of sound iii)Infra and Ultra sound iv)Applications of ultra sound No. of Periods: 6 Month: October	**i)Students will be able to understand:** propagation of sound, types of sound waves, amplitude and frequency of vibration. ii) They will distinguish between loudness and pitch.	i)Assignment on numericals ii) Students will write applications of ultrasound	**Experiential Learning:** experiments demonstrating sound production and transmission, by vibrating objects	Reflection of sound board, sound wave produced by slinky	Critical thinking Responsibilities Respect for nature

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Chemistry **Topic:** Structure of the Atom [4.1 to 4.2] **Sub-topics:** i. Charged particles in matter. ii. The structure of an atom **No. of Periods:** 6 **Month**: October	**Students will be able to:** i) understand the contribution of various Scientists in revealing the presence of charged particles in an atom. ii) compare the structure of an atom with that of a watermelon. iii) explain Rutherford's model of an atom and its drawbacks. iv) explain Bohr's model of an atom.	Multiple Assessment Activity	Activity- To demonstrate electrostatic force of attraction using comb and pieces of paper.	i) NCERT Textbook ii) Talking walls of the School	**21st Century Skills:** i.critical thinking and problem solving, communications and collaboration, creativity and innovation. ii. Information and communication technologies (ICT) literacy
(Biology) **Topic:** Improvement in Food Resources (12.1 to 12.1.3 **Sub-topics:** i. Improvement in crop yields Ii. Crop production management iii. Nutrient Management iv. Irrigation system and cropping pattern **No. of Periods: 7** **Month:** October	**Students will be able to:** i. understand the importance of cropping pattern. ii. differentiate between fertilizers and manure. iii. Explain types of irrigation and their importance.	Assignment	**Science Exhibition**	i. NCERT Textbook	Life Skills- Problem Solving, Creative thinking, Visual perceptual skill

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Physics **Topic: Sound (12.1 to 12.3)** Sub-topics: i)How sound is produced ii)Characteristics of sound iii)Infra and Ultra sound iv)Applications of ultra sound No. of Periods: 6 Month: November	**Students will be able to:** **i)**understand the application of Ultrasound in SONAR system. Ii) understand infra and uitrasound iii)application of ultrasound in sonography	Multiple Assessment Activity	**Multiple Assessment Activity:** students will collect information about ultrasonography and echocardiography.	NCERT Textbook Physics lab	Problem solving skill Responsibilities Active learning
Chemistry **Topic:** Structure of the Atom [4.3 to 4.5] **Sub-topics:** i. How are electrons distributed in different orbits? ii. Valency iii. Atomic Number and Mass Number iv. Isotopes **No. of Periods:** 6 **Month**: November	**Students will be able to:** i. draw the electronic configuration of the elements having atomic number 1 to 20. ii. calculate the valency of the given element. iii. calculate the mass number of the given element. iv. enlist the applications of isotopes and differentiate between isotopes and isobars.	**Multiple Assessment Activity**	**Multiple Assessment Activity:** Students will draw and explain the structure of an atom of the element respective to their Roll Numbers.	i. NCERT Textbook ii. Tata Class Edge	**21st Century Skills:** i.critical thinking and problem solving, communication and collaboration, creativity and innovation. ii. Information and communication technologies (ICT) literacy

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(Biology) **Topic:** Improvement in Food Resources (12.2 to 12.2.4) **Sub-topics:** i. Animal Husbandry - Cattle Farming, Poultry Farming, Fish Production ii. Bee-keeping **No. of Periods:** 6 **Month:** November	**Students will be able to:** i. understand the importance of rearing and caring of different animals. ii. learn about Animal Husbandry.	Assignment	**Multiple Assessment Activity:** Students will collect grains or seeds of cereals or pulses and gather information about the season in which they are sown or harvested.	i. NCERT Textbook	Life Skills- Problem Solving, Creative thinking, Visual perceptual skill
Chemistry **Topic:** Atoms and Molecules [3.1 and 3.2] **Sub-topics:** i. Laws of Chemical Combination ii. What is an atom? iii. What is a molecule? **No. of Periods:** 6 **Month**: December	**Students will be able to:** i. learn the laws of chemical combination. ii. understand the concept of atomic mass and symbols of atoms of different elements.	**Lab Activity and Multiple Assessment Activity**	**Multiple Assessment Activity:** Students will make a chart of elements found in human body and their functions. **Lab Activity:** To verify the Law of Conservation of Mass	i. NCERT Textbook ii. Chemistry Lab iii. Periodic Table Chart	**21st Century Skills:** Communication skills, Problem solving. Perseverance. Technology skills .
Post Mid Term Examination, December 2025					

Topic No. of Periods Month	Learning Outcomes	Assessment tools	Teaching Learning Strategies/ Activities	Resources	Inter-disciplinary
Chemistry **Topic:** Atoms and Molecules [3.3 to 3.5] **Sub-topics:** i. What is a molecule? ii. Writing Chemical Formulae ii. Molecular Mass **No. of Periods:** 6 **Month**: January	**Students will be able to:** i. write the chemical formulae of different compounds. ii. calculate the molecular mass and formula unit mass of molecules	**Experiential Learning Activity**	**i. Science Exhibition** **ii. Experiential Learning Activity** Students will form the formulae of different compounds with the help of cardboard cutouts.	i. Chart of Names and Symbols of polyatomic ions ii. Talking wall of the School iii. Cardboard cutouts for making formulae of different compounds.	**21st Century Skills:** Communication skills, Problem solving. Perseverance.
Revision for Practical Examination and Annual Examination					
Annual Examination, February 2026					