

**BCM SCHOOL**

A Sr. Sec School Affiliated to CBSE, New Delhi

Annual Academic Calendar

Class :- IX

Subject :PHYSICS

Session :- 2020-2021

NCERT BOOK :TEXT BOOK OF SCIENCE

MONTH	TOPIC	LEARNING OUTCOMES	SOURCE/RESOURCES	SUGGESTED ACTIVITIES
April	INTRODUCTION:	The learners would be able	<a href="https://www.youtube.com/watch?v=pWZlICXw3Ng">https://www.youtube.com/watch?v=pWZlICXw3Ng</a>	Classify any five pure substances and mixtures around you
	Pure Substances, Elements,	*To understand pure substances, elements, mixtures and compounds.	LINK 2	
	mixtures and compounds	*To differentiate between elements, mixtures and compounds.	<a href="https://www.youtube.com/watch?v=NV_JkEmuVJc&amp;t=2s">https://www.youtube.com/watch?v=NV_JkEmuVJc&amp;t=2s</a>	Compare the properties of pure substances and mixtures.
	Definations with examples			
	Mixtures :Types of mixtures	*To differentiate between	LINK 3	
	Homogeneous mixtures and hetrogeneous mixture.	homogeneous and hetrogeneous mixture with day to day life activities.	<a href="https://www.youtube.com/watch?v=msSclLW4Lk">https://www.youtube.com/watch?v=msSclLW4Lk</a>	Prepare the mixture of sugar in water, salt in water, sand in water, chalk powder in water and classify them as homogeneous and hetrogeneous mixtures.
			LINK 4	
	Differences between them and examples of both.	To understand that mixtures are very important in our daily life.	<a href="https://www.youtube.com/watch?v=dW1Vn6cbTRE">https://www.youtube.com/watch?v=dW1Vn6cbTRE</a>	
			LINK 5	
Solutions:The components of Solution:- Solute and Solvent	*To understand the different types of solutions. *To calculate the mass percentage of solutions. *To differentiate between three types of solutions.	<a href="https://www.youtube.com/watch?v=SaNZAyqOeT0">https://www.youtube.com/watch?v=SaNZAyqOeT0</a> LINK-6 <a href="https://www.youtube.com/watch?v=urcxDUJloyl">https://www.youtube.com/watch?v=urcxDUJloyl</a>	Dissolve different solutes in solvent and compare their solubilities.	
		LINK 7		

	Types of solution: Saturated Solution, Unsaturated Solution and	To understand the significance of saturated solution,unsaturated solution	<a href="https://www.youtube.com/channel/UCTB_Mn10B2ZL3RUuPteVKqA">https://www.youtube.com/channel/UCTB_Mn10B2ZL3RUuPteVKqA</a>	Make a saturated solution , unsaturated solution and
			LINK 8	
			<a href="https://www.youtube.com/watch?v=qcpiDBya_Nw">https://www.youtube.com/watch?v=qcpiDBya_Nw</a>	observe the changes in between them.
<b>MAY</b>	<b>CHAPTER 2 IS MATTER AROUND US PURE</b>			
			LINK 1	
	True solution: Defination, Examples of True Solution, Properties of true of solution	To understand the meaning of true solution	<a href="https://www.youtube.com/watch?v=_4dA2-WcS4">https://www.youtube.com/watch?v=_4dA2-WcS4</a>	
		To realize the impotence of true solutions in our day to day life.	LINK 2	Make an activity based short video to prepare a true solution
			<a href="https://www.youtube.com/watch?v=w4BU_gg-R9q">https://www.youtube.com/watch?v=w4BU_gg-R9q</a>	
	Suspension solution Definations with examples, Properties of Suspension solution	*To understand the properties of suspension solution	LINK 3	perpare suspension solution
		*Explain Tyndall effect with examples from day to day life.	<a href="https://www.youtube.com/watch?v=LkUs4qZ9BRo&amp;t=36s">https://www.youtube.com/watch?v=LkUs4qZ9BRo&amp;t=36s</a>	and observe its properties.
		*Apply their knowledge in daily life.	LINK 4	
			<a href="https://www.youtube.com/watch?v=8Xcpq6e8pBY&amp;t=6s">https://www.youtube.com/watch?v=8Xcpq6e8pBY&amp;t=6s</a>	
			LINK 5	
Colloidal solutions : Define with examples.	*Identify the various types of colloidal solutions	<a href="https://www.youtube.com/watch?v=JB_9ZbUoEFE">https://www.youtube.com/watch?v=JB_9ZbUoEFE</a>	compare the examples of various types of colloids.	
Properties of colloidal solutions.		LINK 6		
		<a href="https://www.youtube.com/watch?v=w4BU_gg-r9Q">https://www.youtube.com/watch?v=w4BU_gg-r9Q</a>		
		LINK 7		

	Difference between true solution, colloidal and suspension solution.	To compare the properties of true solution, suspension and colloidal solution.	<a href="https://www.youtube.com/watch?v=a4GF5bcMuMs">https://www.youtube.com/watch?v=a4GF5bcMuMs</a>	Prepare all the three types of solutions and classify them on the basis of their properties.
			LINK 8	
			<a href="https://www.youtube.com/watch?v=XEAiIm2zuvc">https://www.youtube.com/watch?v=XEAiIm2zuvc</a>	
<b>JUNE</b>	<b>SUMMER HOLIDAYS</b>			
<b>JULY</b>	<b>CHAPTER 2 IS MATTER AROUND US PURE</b>	The Students would be able		
		*To understand the role of each technique.		
	Separating the components of mixture by chemical method: evaporation	*To analyze them on the basis of principle involved in each technique.	LINK 1	
			<a href="https://www.youtube.com/watch?v=tQdvPTPIU1M">https://www.youtube.com/watch?v=tQdvPTPIU1M</a>	Compare various types of examples of evaporation from your daily life.
		*To use their knowledge in day to day life activities		
		To understand the actual method of evaporation.	LINK 2	
			<a href="https://www.youtube.com/watch?v=hSLZJ-P3VBU">https://www.youtube.com/watch?v=hSLZJ-P3VBU</a>	
	Centrifugation, separating funnel method, sublimation, chromatography.	*To understand the principle involved in these techniques.	LINK 3	
	Principle, procedure	*To appreciate the role of each technique in our day to day life activities.	<a href="https://www.youtube.com/watch?v=9u4azf206T0">https://www.youtube.com/watch?v=9u4azf206T0</a>	Observe the various applications of centrifugation in dairy farm, kitchen and in labs.
	Applications		LINK 4	
		<a href="https://www.youtube.com/watch?v=ncr-9iMEzwU">https://www.youtube.com/watch?v=ncr-9iMEzwU</a>		
Distillation method,		LINK 5		
	*To separate two miscible liquids from each other	<a href="https://www.youtube.com/watch?v=UmhYur7mtcw">https://www.youtube.com/watch?v=UmhYur7mtcw</a>	Try to separate any two miscible liquids from each other.	

	Applications	* To differentiate between physical and chemical changes	LINK 6	
	Physical and chemical changes		<a href="https://www.youtube.com/watch?v=vYncgJfo72E">https://www.youtube.com/watch?v=vYncgJfo72E</a>	Classify any five physical and chemical changes around you.
	<b>CHAPTER 3 ATOMS AND MOLECULES</b>			
<b>Sept</b>	<b>HALF YEARLY EXAM</b>			
			LINK 1	
	laws of chemical combination, law of constant proportion	*students will be able to differentiate between two laws	<a href="https://youtu.be/pEIQ93tQ-yo">https://youtu.be/pEIQ93tQ-yo</a>	Observe mass of reactant and mass of product is equal during chemical reaction.
			LINK 2	
	Atom, atomic size, modern symbols	*students will be able to understand formation of atom.	<a href="https://youtu.be/l1VXM_b2KFY">https://youtu.be/l1VXM_b2KFY</a>	
		*critical thinking		
			LINK 3	
<b>Oct</b>	Atomic mass, Molecule, molecule of elements and compound	*students will be able to understand difference between atom and molecule.	<a href="https://youtu.be/KuyB-445gQM">https://youtu.be/KuyB-445gQM</a>	draw structure of compounds by using balls and iron stick
		*students will understand how to make chemical formula of compound		
			LINK 4,5	
	Ion, Chemical formula, molecular mass, formula unit mass	* students will be able to calculate M.M and F.U.M	<a href="https://youtu.be/FcIVPVLt2L4">https://youtu.be/FcIVPVLt2L4</a>	
			<a href="https://youtu.be/tmDmBqCrhNY">https://youtu.be/tmDmBqCrhNY</a>	
	mole concept	*conceptual understanding		
		* to enable the students to solve numericals	<a href="https://youtu.be/4q2eIWPfB6A">https://youtu.be/4q2eIWPfB6A</a>	

Nov	<b>CHAPTER 4 STRUCTURE OF ATOM</b>		LINK 1	
	introduction atomic structure, thomson's model of atom	* students enable to draw different structure of atom	<a href="https://youtu.be/ILwnACfo7hY">https://youtu.be/ILwnACfo7hY</a>	Compare thomson model with water melon
			LINK 2,3	
	Rutherford's model of an atom, drawbacks, Bohr's model of atom, neutron	* students will able to differentiate different theories	<a href="https://youtu.be/1EdTw4I6L0U">https://youtu.be/1EdTw4I6L0U</a>	
			<a href="https://youtu.be/fm2C0ovz-3M">https://youtu.be/fm2C0ovz-3M</a>	
			LINK 4	
	how are electron distributed in different orbits (shells), valency, atomic number and mass number isotopes and isobars	* students will find valency from electronic configuration.	<a href="https://youtu.be/eMY_tRR1Hls">https://youtu.be/eMY_tRR1Hls</a>	
		*able to learn atomic mass and atomic number		
			LINK 5	
	*to enable the students to learn isobars and isotopes	<a href="https://youtu.be/qgJW1g0nCxQ">https://youtu.be/qgJW1g0nCxQ</a>	uses of isobars in daily life	
<b>REVISION</b>				

**DELETED CHAPTERS**

MONTH	TOPIC	LEARNING OUTCOMES	SUGGESTED ACTIVITIES
Aug	*****CHAPTER 1 MATTER IN OUR SURROUNDINGS	*. Define matter with examples from day today life and state the composition of Matter	
	Chapter 1 Matter in our surroundings Introduction Matter: Define : examples,characterstics of matter.	*. Analyze the characteristics of the particles of matter applicable in day today life activities	Identify various types of matter around you and classify them on the basis of their properties.
		The students will be able to Evaluate the conditions for the inter conversion of various state of matters. * Explain related terms:- Melting, Freezing, Boiling, Condensation and sublimation.	Measure the temperature of water and observe the change in water on keeping it in refrigerator and on boiling
	Interconversion of various states of matter		Keep the naphthalene balls in clothes and observe the change after sometime.
	Latent heat of fusion and latent heat of vaporisation	*Apply the knowledge of latent heat ( Ice, Steam) in day today life activities.	Heat the water and see the change in temperature of it.
	Evaporation: Define,examples Factors affecting evaporation	The Students would lbe able to:- *Describe evaporation *.Analyse the difference between evaporation and boiling . *.Interpret the factors affecting evaporation and appreciate the role of evaporation in daily life.	

\*\*\* These chapters will be assessed for internal assessment only and not to be assessed in board examination.