## Vidya Pratishthan's Dr.Cyrus Poonawalla School (CBSE) Baramati

Sub-Science (Physics)

Annual Planning 2024-2025

Std- VIII

SR. No	Content/ Topic	Month	Learning Objectives	Expected Learning Outcomes	Activity/Practi cal	Teaching aid	21 <sup>st</sup> Century Skill/ Assessmen t
1.	Force and Pressure	April					
	Force - push or a pull		Classify common actions involving motion of object as push or pull in order to define the term force.	Classify common actions as push or pull	Draw diagram to show different effect of force	ICR	
	Effect of force		To predict the changes when force is applied to a body.	Analyze motion of an object when force is applied in the same and opposite direction in order to conclude that forces in same direction add while forces in opposite directions subtract.	Activity 11.2 of NCERT Science textbook Activity 11.2 of NCERT Science textbook.		Self- Assessment
	Contact and non- Contact forces			Able to differentiates between contact and non-contact forces.	Differentiate between friction and fluid friction.	Activity	

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	Pressure Pressure exerted by liquids and gases Atmospheric pressure	June	To define contact forces and define non-contact forces. To derive the formula pressure for given force applied on a given area To drive the formula pressure for given force applied in area. Discover the direction of pressure applied by liquid when put in a container. Discover the direction of pressure applied by liquid when put in a container. Discover the direction of pressure applied by liquid when put in a container.	Calculate pressure for given force applied on a given area Calculate pressure for given force applied on a given area	Differentiate between friction and fluid friction.	Rogh set face	Solving Problem
2.	Friction	July	Discover the factors that cause friction.	Students will be able to - Describe friction. State		Triction	
	friction		To provide advantages			friction Smooth surface	
	Factors affecting friction Friction necessary evil		and disadvantages of friction in order to justify friction as necessary evil.	Students will be able to - Describe ways to reduce friction Explore factors affecting friction such as nature of surfaces. Students will be able to -		Carom game	

	Reducing Friction Increasing Friction Types of friction Fluid friction		To identify factors causing friction in order to come up with formulate strategies to reduce or increase friction Differentiate between rolling friction and sliding friction. To explain drag caused by air (friction caused by fluids).	Explain different types of friction.		Rolling motion	
3.	Sound	August	List examples of body moving in to and fro motion in order to explain vibration List commonly known musical instrument and identify parts that vibrate in order to explain that vibration produces sound List and identify functions of parts of human body that produces sound in order to explain the process of sound production Provide examples where sound travels from one point to another in order to	Explain process of propagation of sound; Explains processes and phenomena in order to relate to science behind the phenomena/processes and develop scientific thinking skills: Constructs models using materials from surroundings and explains their working in order to demonstrate scientific knowledge and understanding of how it works.	Record the observations during the activity, experiments, surveys, field trips, etc.	ICR	Problem Solving

			establish that sound needs a medium to			
			propagate Describe the			
			structure and function			
			of an eardrum in order			
			to explain how humans			
			hear sound Recall the			
			audible range of sound			
			for humans in order to			
			explain why certain			
			sounds cannot be			
			heard by humans Noise			
			pollution List the			
			harmful effects of noise			
			pollution in order to			
			mitigate it.			
			Identify and calculate			
			the angles of incidence			
			and reflection of a ray			
			of light to illustrate the			
			laws of reflection in real			
			life. Conclude the law			
			of reflection and			
4.	Light	January	represent it by drawing	Distinguish between	Activity	
			a ray diagram	reflection from a rough	formation of	
			identifying incident ray,	and a smooth reflecting	multiple images	Self-
			reflected ray and the	surface in order to	experiment.	assessment
			normal Illustrate with a	differentiate between		
			line diagram how	diffused and regular		
			images invert when	reflection		
			reflecting from a mirror			
			in order to see the			

applications of the laws       Establish that light can         of reflection. Describe       multiple time         various parts of human       reflect multiple time         eye and identify their       functions in order to         explain how humans       kaleidoscope.         see object in presence       of light Compare and         contrast between blind       spot and field of view in         order to explain how       humans see object in         humans see object in       the braille system in         order to explain how       humans         pople with visual       impairment manage to         read and write       Recall examples of         visible sparks in order       to explain the         phenomenon of       lightning. Analyze if         two charged objects       ettered reared objects	 1 1			T	
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establish that similar		establish that similar			
charge repel each other		charge repel each other		P N N N	
while opposite charge		while opposite charge			
attract each other		attract each other			
Examine the working of		Examine the working of			
alectroscope to detect if		alastrosoons to detect if			
		electroscope to detect II			

5.	Some Natural Phenomeno n		<ul> <li>an object is charged or not in order to apply the concept of similar charge objects repel each other</li> <li>Investigate the process of earthing in order to assess the process of transferring charge from a charged object to earth in order to explain the advantages of earthing of electric circuits in households.</li> <li>Examine the sequence of lightening occurring in clouds in order to explain the process of electric discharge in nature.</li> <li>Lightning safety Predict how lightning travels from the cloud to the ground in order to describe the measures that must be taken during lightning</li> </ul>	Justify the phenomenon of earthquake in order to explain that the ground beneath us is not static Illustrate with a diagram the movement of earth in order to explain how earthquakes cause.	Activity	ICR	Self Assesment
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