

ಪಠ್ಯವಸ್ತು

5ನೇ ತರಗತಿ

ವಿಜ್ಞಾನ

Theme	Sub Theme	Key Concepts	Objectives	Resources	Activity / Process	Periods
1. The Living World	Characteristics of Life Habitat	<ul style="list-style-type: none"> • Characteristics of living and non living • Differences between plants and animals • Different types of Habitats and examples 	<ul style="list-style-type: none"> • Able to Understand the characteristic features of living and nonliving. • Differentiate between plants and animals • Learn about the habitats of various animals 	<ul style="list-style-type: none"> • Specimens Pictures Charts Visits 	Visits, Collection of pictures (album)	
2. Materials	States of matter <ul style="list-style-type: none"> • Relation between matter and energy • Effect of temperature on solids, liquids and gases • Types of elements. • Common elements in	<ul style="list-style-type: none"> • Solids, Liquids and Gases • Effects of temperature on solids, liquids and gases • Mass, density, pressure, buoyancy • Definition metals and non metals. <ul style="list-style-type: none"> • Air, Water, Soil • Elements in - Water - Soil 	Will be able to understand and distinguish solids, liquids and gases. Will understand what is mass, Density, Pressure, Buoyancy distinguishes between metals and non-metals, understands that air is matter.	Show all states of matter Conduct experiments, show charts. Charts	Charts a few metals and a few non-metals to be shown to students.	4 4

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	nature • Pure and impure substances	<ul style="list-style-type: none"> • Symbol - (Symbol elements) • Solid element <ul style="list-style-type: none"> - Liquid element - Gas element • Elements, Compounds and Mixtures 	Experimentally distinguishes between Hydrogen and Oxygen. - Recognizes symbols of a few elements. - Recognizes liquid and gaseous elements. - Classifies elements, compounds and mixtures.	Voltameter, burning splinter. Periodic table Sample of Glucose, sugar, water, Sand NaCl, N, K, Ca, S.	Voltameter experiment Introduction of burning splinter into test tubes liberating Hydrogen and Oxygen - Play way method can be followed - Dramatization - Dramatization, Group activity	

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2. Materials	Water	<ul style="list-style-type: none"> • Elements present in Water • Sources of water • Physical properties of Water • Biological importance - for plants and animals. 	<ul style="list-style-type: none"> • Lists out the sources of water. • Reasons out the importance of lakes and streams. • Analyses the importance of water to organisation. 	Charts of rivers, streams and Oceans.	1) Voltameter experiment 2) Dramatization 3) Gardening	
	<ul style="list-style-type: none"> • Potable water • Air 	<ul style="list-style-type: none"> • Potable water - characteristics • Earth's atmosphere • Constituents of air • Air-occupies space, air has weight, air help in burning. 	Understands the meaning of potable water. Lists out the constituents of air. Experimentally determines that air has weight. Reasons out the importance of air (Oxygen) in combustion understands molecular alignment.	Aquarium maintainance, Growing plants in different conditions. Chart Spring balance, foot ball bladder, air pump. Candle, water, Beakers Chart	4) Visit to water treatment plant Film show Experimentation Demonstration	

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3. How Things Work	Electrical circuit	<ul style="list-style-type: none"> • Electric current • Basic law of electronics • Electric cell - working and uses 	<p>Will understand what is electric current.</p> <p>Will understand how an electric cell works</p>		Charts & labwork.	6
	Electrical devices	<ul style="list-style-type: none"> • Fuse - Components and function • Fuse Characteristics 	Will know how a fuse works and what is it made up of and its uses.			
	Combustion	<ul style="list-style-type: none"> • Definition - types and examples. • Oxygen Ignition, temperature are essential for combustion • Fire triangle - • Slow, Fast and rapid combustion • Controlled combustion (gas stove) 	<p>Understands combustion triangle.</p> <p>Compares and contrasts slow, fast and rapid combustion.</p>	Charts	Demonstration	4
	Transportation	<ul style="list-style-type: none"> • Means of transportation • Fuels used in different vehicles 		Charts	Demonstration	
	Sublimation	<ul style="list-style-type: none"> - Sublimation solids, non-sublimation solids examples 	Understands sublimation	NH ₄ Cl, NaCl, Burner, Beaker Dish.	Experiment to demonstrate sublimation	

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4. Food	Constituents	<ul style="list-style-type: none"> • Carbohydrates - Elements present • Proteins-elements present • Carbohydrate-As a source of energy 	<ul style="list-style-type: none"> • Understand the Importance of the food. 	Charts,	Collection of grains etc.	
4. Food	Autotrophism & Heterotrophism	<ul style="list-style-type: none"> • Autotrophes and Heterotrophs - Types and examples 	<ul style="list-style-type: none"> • Appreciate the smooth balance that exists between plants and animals in nature. 	Specimens and pictures	Heating Sugar, Bread, Rice to show the presence of Carbon	
	Sources of food	<ul style="list-style-type: none"> • Basic concepts of agriculture. • Natural fuels <ul style="list-style-type: none"> - wood, - Natural gas - Coal - Petroleum • Factors essential for combustion of fuels. • Products of combustion 	<ul style="list-style-type: none"> • Understand the importance of agriculture in food production. 		Collection	

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5. Environmental Science	<ul style="list-style-type: none"> Family and friends Work and Play Shelter and Clothing 	<ul style="list-style-type: none"> Relationships Family tree Our likes and dislikes, - attitudes Team games Local games Exercises Dignity of labour Regional differences Neighbourhood concept Society 	<p>Understand the basic values</p> <p>Learn to respect the elders.</p> <p>Understand the team spirit</p>	<p>Pictures, moral stories</p> <p>games</p> <p>stories</p> <p>Drama</p>	<p>Roleplays (Dramas...)</p> <p>Role plays</p>	
6. Natural Resource	<ul style="list-style-type: none"> Importance of Air, Water, Light and Soil 	<ul style="list-style-type: none"> Sources of water Methods of conserving Sun-As a natural resource of light Importance of air Importance of soil (to living organisms) 	<p>Understand the influence of nonliving factors on living organisms.</p>	<p>T.V. Shows</p> <p>Charts</p> <p>Collecting the information</p>	<p>Preparing charts</p>	