

**LESSON PLAN-1**  
**T1-Session 2015-2016**

<i>For the month of March</i>	<i>Objectives (Concepts &amp; Skills)</i>	<i>Learning Outcomes</i>	<i>Instructional Tools &amp; References</i>	<i>Pedagogy</i>	<i>Activity / Assignment / Projects</i>	<i>Assessment of Learning Outcomes</i>	<i>FA / SA Syllabus</i>
<p><b>Class :</b> IX</p> <p><b>Subject :</b> Chemistry</p> <p><b>Theme:</b> Matter in our surroundings</p> <p><b>Periods:</b> (10)</p> <p><b>Theory:</b> (7)</p> <p><b>Practical:</b>(3)</p>	<p>➤ <i>Basic Concept about physical nature of matter.</i></p> <p>➤ <i>Basic concept about how small the particles of matter are?</i></p> <p>➤ <i>Basic concept about characteristics of particles of matter.</i></p> <p>➤ <i>States of matter</i></p> <p>➤ <i>The solid state</i></p> <p>➤ <i>The liquid state</i></p> <p>➤ <i>The gaseous state.</i></p> <p>➤ <i>Can matter change its state</i></p> <p>➤ <i>Effect of change of temperature</i></p> <p>➤ <i>Effect of change of Pressure.</i></p> <p><b>Skills:</b></p> <p>Evaporation</p> <p>(Scientific Aptitude) (Content of Knowledge) (Presentation) (Correctness) (Thinking skills) (Reasoning Skills) (Attention span)</p>	<p>Make it sure that the student learns the concepts given .</p> <p>Particles of matter are very small.</p> <p>Particles of matter have space between them..</p> <p>Particles of matter are continuously moving.</p> <p>Particles of matter attract each other.</p> <p>Concept about that matter around us exists in three different states.</p> <p>Students learn about that solids have definite shape(Rigidity) definite boundaries and fixed volume.</p> <p>They will learn about that liquids that have no fixed shape but have fixed volume. Concept about that liquids can flow (fluidity.)</p> <p>Concept about gaseous state that gases neither have definite volume nor definite shape.</p> <p>They will learn about that due to temperature particles start vibrating that overcome the force of attraction between the particles and change into another state.</p> <p>They will learn about how pressure determines the state of substance. Students also Learn that with increasing pressure molecules come closer thus change into another state</p>	<p><i>In addition to general teaching tools like white board, marker, etc, the teacher will use models, charts, popular science reviews.</i></p> <p><i>The References used will be :</i></p> <p>-chemistry – Pradeeps publication / chemistry – Denaish Publications</p> <p>-Science and Technology Text Book for class IX</p> <p>-</p>	<p>Activating Prior Knowledge by Random Questioning</p> <p>Introducing the topic to be taught after getting the expected response from the students.</p> <p>Developing hypothesis by :</p> <p>Brainstorming</p> <p>Lecture</p> <p>Discussion</p> <p>In Text Questions</p>	<p><b>Home Assignments:</b></p> <p>The areas of assessment will be:</p> <p>(Regularity) (Content of Knowledge) (Presentation) (Correctness) (Thinking skills)</p>	<p><b>Chart Making:</b></p> <p>The areas of assessment will be:</p> <p>(Time Management) (Presentation) (Correctness)</p>	<p>FA Syllabus: Matter in our surroundings.</p> <p>Textbook related to the topic.</p> <p>SA Syllabus</p> <p>Same as FA</p>

be measured in two different scale-degrees Celsius and Kelvin  
Appreciate that measurement in two scales are inter-convertible.  
Convert the given temperature in one scales in another scale and vice verse

Students will learn that on heating, a liquid can be changed into vapours and the phenomenon is called evaporation.  
Students will understand that evaporation of any liquid depends on surface area, temperature humidity and speed of the wind.

**LESSON PLAN-2**  
**T1-Session 2015-2016**

<i>For the month of April</i>	<i>Objectives (Concepts &amp; Skills)</i>	<i>Learning Outcomes</i>	<i>Instructional Tools &amp; References</i>	<i>Pedagogy</i>	<i>Activity / Assignment / Projects</i>	<i>Assessment of Learning Outcomes</i>	<i>FA / SA Syllabus</i>
<p><b>Class IX</b></p> <p><b>Subject :</b> Chemistry</p> <p><b>Theme:</b> Is matter around us pure</p> <p><b>Periods:</b> (4)</p> <p><b>Theory:</b> (2)</p> <p><b>Practical:</b>(2)</p>	<p>➤ What is mixture</p> <p>➤ What is solution</p> <p>➤ True solution and colloidal.</p> <p>➤ What is suspension</p> <p>➤</p> <p><b>Skills:</b> (Scientific Aptitude) (Content of Knowledge) (Presentation) (Correctness) (Thinking skills) (Reasoning Skills) (Attentiveness) (Listening Skills)</p>	<p>Make it sure that the student learns the concepts given.</p> <p>➤ TO enable the students</p> <p>➤ Understand that mixture containing small particles which can't be seen through naked eye dispersed in a medium.</p> <p>➤ They will learn that solution is homogenous mixture of two or more substance.</p> <p>➤ To enable the students to learn difference between true solution and colloidal solution.</p> <p>➤ To enable the students to learn that suspension is non homogenous mixture in which solids are dispersed in liquids</p> <p>➤ They will understand that suspension is a type of heterogeneous mixture in which particles don't dissolve but remain suspended throughout the bulk of medium.</p>	<p>In addition to general teaching tools like white board, marker, etc, the teacher will use</p> <p>i) Electric devices like Ammeter, Voltmeter, electric cell, battery, plug key, connecting wires, Resistor, etc.</p> <p>ii) Apparatus for verifying Ohms Law</p> <p>The References used will be : -Conceptual Physics by Paul Hewit -Science and Technology Text Book for class X. -</p>	<p>Activating Prior Knowledge by Random Questioning</p> <p>Introducing the topic to be taught after getting the expected response from the students.</p> <p>Developing hypothesis by :</p> <p>Brainstorsssming</p> <p>Lecture</p> <p>Discussion</p> <p>In Text Questions</p>	<p><b>Chart Making:</b></p> <p>The areas of assessment will be: (Time Management) (Presentation) (Correctness)</p>	<p><b>Home Assignments:</b> The areas of assessment will be: (Regularity) (Content of Knowledge) (Presentation) (Correctness) (Thinking skills)</p> <p><b>Group Discussion:</b> The areas of assessment may include (Listening Skills) (Clarity of expression) (Communication skills) (Content of Knowledge) (Attentiveness) (Teamwork) (Respect to peer) (Appropriate body language)</p>	<p><b>FA Syllabus:</b> solution .true solution and colloidal solution.</p> <p>➤ Suspensi ons.</p> <p>➤ Differenc e between solution true and colloidal solution.</p> <p>➤ Textbook the topic.</p>

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## LESSON PLAN-3

### Session 2015-2016

<i>For the the month of May.</i>	<i>Objectives (Concepts &amp; Skills)</i>	<i>Learning Outcomes</i>	<i>Instructional Tools &amp; References</i>	<i>Pedagogy</i>	<i>Activity / Assignment / Projects</i>	<i>Assessment of Learning Outcomes</i>	<i>FA / SA Syllabus</i>
<p><b>Class</b> IX</p> <p><b>Subject</b> : Chemistry</p> <p><b>Theme:</b> IS matter around us pure.</p> <p><b>Periods:</b> (4)</p> <p><b>Theory:</b> (2)</p> <p><b>Practical:</b>(01 )</p>	<p>➤ Separating the components of mixture.</p> <p>➤ How can we separate a mixture of two miscible liquids?</p> <p>➤</p>	<p>Make it sure that the student learns the concepts given.</p> <p>➤ To enable the students</p> <p>➤ To understand various separating techniques for separating of components of a mixture.</p> <p>➤ Find the best method for separation of components of a given mixture.</p> <p>➤ Appreciate that components of mixture can be separated using physical methods of separations.</p> <p>➤ Students will learn the concept about miscible liquids with sufficient difference in boiling point temperature can be separated through the technique of Distillation.</p> <p>➤ Students will recognize different components of apparatus used for the separation of miscible liquids through distillation</p>	<p>In addition to general teaching tools like white board, marker, etc, the teacher will use</p> <p>(i)Apparatus for verifying Preparation of mixture.</p> <p>(ii)Formation of compound</p> <p>The References used will be : -pradeeps -Science and Technology Text Book for class IX.</p> <p>-</p>	<p>Activating Prior Knowledge by Random Questioning</p> <p>Introducing the topic to be taught after getting the expected response from the students.</p> <p>Developing hypothesis by :</p> <p>Brainstorming</p> <p>Lecture</p> <p>Discussion</p> <p>In Text Questions</p>	<p><b>Oral Questions:</b> The teacher will do it to assess the understanding of the topic by the students. The areas of assessment will include: (Listening Skills) (Clarity of concepts) (Communication skills)</p> <p><b>Chart Making:</b> The areas of assessment will be: (Time Management) (Presentation) (Correctness)</p>	<p><b>Group Activity:</b> The teacher will divide the students in groups to perform practical work in the lab and the areas of assessment may include (Attentiveness) (Teamwork) (Respect to peer) (Appropriate body language) (Submission of practical notebook)</p>	<p><b>FA Syllabus:</b></p> <p>➤ Separating the components of mixtures.</p> <p>➤ Process of distillation for separating the components of miscible liquids</p> <p>➤ Process for the separation of immiscible liquids (General heating, believes in difference in boiling point)</p> <p>➤ Process of crystallization (separation of impure mixture)</p> <p>➤ Process of chromatography For the separating of colours in a dye.</p> <p>➤ Physical and Chemical change.</p> <p>➤ Examples of physical and chemical change.</p> <p>➤ Textbook related to the topic.</p>

<p>➤ How can we separate mixture of colours in a dye.(Chromatography)</p> <p>➤ Physical change and chemical change.</p> <p>➤ How can we separate mixture of immiscible liquids?</p>	<p>through the technique of Chromatography</p> <p>➤ They will learn the practical skill of chromatography.</p> <p>➤ They will understand that chromatography can be used to separate the colours soluble in the same solvent..</p> <p>➤ They will understand that colour which is more soluble in the solvent will rise more faster.</p> <p>➤ To enable the students to</p> <p>➤ Understand the difference between physical and chemical change.</p> <p>➤ They will understand that interconversion of state is a physical change.</p> <p>➤ Students will understand changes that don't alter the composition of state is a physical change.</p> <p>➤ They will understand that one substance reacts with another undergoes a chemical change.</p> <p>To enable the students to understand that pair of immiscible liquids can be separated by separating method. They will understand how can we separate mixture of oil in water by separating funnel as they are example of immiscible liquids.</p>					
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	<p><b>Skills:</b>  <i>(Scientific Aptitude)</i>  <i>(Content of Knowledge)</i>  <i>(Presentation)</i>  <i>(Correctness)</i>  <i>(Thinking skills)</i>  <i>(Reasoning Skills)</i>  <i>(Attentiveness)</i>  <i>(Listening Skills)</i></p>	<p><i>substance can be separated through the process of Crystallization</i>  <i>They will learn the concept how crystallization is done</i>  <i>They will also learn about what is crystallizations and how it occurs.</i></p>					
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