

SUBJECT: CHEMISTRY
TOPIC: ACIDS, BASES AND SALTS

DIARY- LESSON PLAN

Pre- Content/Content / Post –content	Learning Outcome/Objectives	
	<u>General</u>	<u>Specific</u>
Pre Content: Teacher will motivate the students to introduce the lesson by a brainstorming session and interactive session in the following way Different food items have different taste because the substances have different chemical nature. Can you tell what's the taste of vinegar, lemon juice and orange juice Students – They are sour in taste. Teacher – They are sour because they all contain acid Content: • Classification of substances- acid, bases and salts • Action of different indicators on acids and bases Post Content: The student at the end of the chapter should be able to comprehend the following concepts • The properties of acids and bases and their uses. • The use of with indicators	Students will be able to: • enlist the properties and uses of acids and bases. • appraise the change of colour due to the action of indicators on acid and bases • application of the concept of neutralization in our daily life.	Students will be able to: • evolve the definitions of acid and bases • observe and classify them on the basis of their properties • distinguish between acids and bases. • identify actions of different indicators on acids and bases • identify various samples using indicators • explore the ways of making natural indicators • correlate and apply in daily life situations like removing turmeric stains from clothes.

Home Work / Assignments

- Worksheets and assignments.
- Question answers from text-book.

AND PROGRESS

MONTH: JANUARY

CLASS: VII

Teacher's Activity	Student's Activity	Teacher's Observation and Remedial action taken
Teacher will: begin the chapter by recapitulation of the previous knowledge and experience of the students by asking them about the taste of some common edible substances <u>Annexure 5 (A):</u> provide them a table and tell them to write about the taste of each one of them. <u>Annexure 5 (B & C):</u> explain an activity to show the colour change in acid and bases with purple-cabbage juice and turmeric as indicators. demonstrate an activity to test different test solutions with litmus and China rose as a natural indicator explain the process of neutralization and give real life situations to remove stains from clothes.	Students will: participate in the discussion and the brainstorming session .Each student will be given a chance to speak about their observations. <u>Annexure 5 (a):</u> actively participate in the activity and complete the table <u>Annexure 5 (b & c):</u> perform the activity and see the colour changes with both the indicators and record their observations. perform the activity and observe the colour changes with litmus and China rose indicator and record their observations appreciate the importance of the process of neutralization and relate it to real life situations in treating indigestion , ant bite etc.	

Teaching Aids- Blackboard, Chart, Textbook, Smart board, ICR, Textbook and worksheet

Methodology/Innovative Methods: Activity based teaching, Know to Unknown, Discussions, Deductive Activity Method, brainstorming sessions.

Interdisciplinary Links –

English – It will improve the power of expression while explaining the activity and also vocabulary.

Biology – Importance of neutralization reaction in our everyday life.

Art – Artistic skills for making a card by using turmeric as an indicator

HOD

Coordinator

Vice-Principal

Principal

ANNEXURE 5(A) & (a)

Place a list of ten edible substances being used by you at home. Taste each one of them separately and enter your result in the following table:

Sl No.	Edible Substance	Taste
1.	Unripe mango	
2.	Mango	
3.	Common salt	
4.	Vinegar	
5.	Lemon juice	
6.	Curd	
7.	Tamarind	
8.	Sugar	
9.	Baking soda	
10.	Bitter Gourd	

ANNEXURE- 5(B, C) & (b, c)-COLOUR CODE

Subject	Science
Class	VII
Chapter/Unit	Acids, bases and salts
Topic	Indicators
Time	30 minutes
Nature of Activity	Individual

What will I learn (Learning Outcome)?

Students will test acids and bases using indicators.

Skills: Analysing and Applying

What I have to do?

To test acids and bases using natural indicators.

What do I require?

- Half a teaspoonful each of lemon juice, baking soda and common salt for testing,
- purple-cabbage juice and turmeric, as indicators,
- a small piece of white cloth cut into six pieces and
- three test tubes.

What do I need to know?

Indicators are those substances which help us to identify whether a substance is an acid or a base, by their change of color.

➤ Teacher's Activity

Teacher will

1. arrange the materials for the individual
2. give instructions regarding the activity.

How will I proceed?

➤ Student's Activity

1. Take some water in a test tube, add lemon juice and shake it to make a solution. Mark it A.
2. Similarly, make a solution of baking soda in a test tube and mark it B.
3. Make a solution of common salt and mark the test tube C.
4. Take three pieces of cloth and put turmeric stains on each one of them. Put a drop each of solution A, B and C on the three stains. Note the change in colour, if any, of the turmeric stain.
5. Now, take three pieces of cloth and put purple-cabbage juice on each one of them. Put a drop of each of solution A, B and C on the three stains. Note the change in colour.

What have I observed?

Effect of solution on turmeric

Color	A	B	C
Before adding indicator			
After adding indicator			

Effect of solution on purple-cabbage

Color	A	B	C
Before adding indicator			
After adding indicator			

What have I learnt?

- With **turmeric** I will observe that:
 - ❖ It changes color from _____ to _____ with the baking soda solution.
 - ❖ It _____ color with the lemon juice solution.
 - With **purple-cabbage juice** I will observe that:
 - ❖ It changes colour from _____ to _____ with the lemon juice solution.
 - ❖ It changes colour from _____ to _____ with the baking soda solution.
- The turmeric and the purple-cabbage juice _____ show any change in colour with the common salt solution.

What am I curious to learn?

- Let us make indicator solutions from China rose and check their colour in solutions of some acidic and basic substances.

Let me evaluate myself

Q1. Give one example each of acidic, basic and neutral substances.

Ans. _____
_____.

Q2. List any three substances that can serve as indicators.

Ans. _____
_____.

Q3. Mention any two difference between an acidic and a basic substance.

Ans. _____
_____.

Q4. It has been observed that a turmeric stain on a white shirt turn red when it is washed with soap. Explain why?

Ans. _____
_____.

Q5. A few drops of purple-cabbage juice are added to the colourless solution of a salt. The resulting solution becomes light purple. What does it indicate about the nature of the salt?

Ans. _____
_____.