



National College for Teacher Education

(NAAC Accredited with 'B' Grade)

Iqbal Square, Meprathupady, Vengola, Perumbavoor, Ernakulam - 683 556

KEY INDICATOR

CRITERION 2-Teaching-learning and Evaluation

2.4 COMPETENCY AND SKILL DEVELOPMENT

PREPARATORY SCHOOL ACTIVITIES

METRIC 2.4.2.A

Reports and photographs / videos of the activities

Affidavit

I do hereby certify that, all pages in this document are duly authenticated by me, under my privilege as the Head of the institution of National College for Teacher Education, Vengola, Ernakulam, Kerala

Tel : 0484 2522583, 0484 2525603

E-mail : nationalcollege09@gmail.com, Website : www.nationalcollege.edu.in

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The institution provides a set of activities as preparatory to school based practice teaching and internship. The activities help in bridging the gap between theoretical knowledge and practical application. Following activities are selected by the institution:

- 1) Classroom observation-demonstration classes are organized by the institution and students observe teaching strategies, student engagement and overall flow of the lesson. Writing reflections on observed classes to analyses teaching methods, student interactions and lesson effectiveness.
- 2) Familiarizing with curriculum study-content analysis of textbook and other educational resources are done during practice sessions. Students also create teaching aids, digital content etc. for enhancing learning experience.
- 3) Formulating learning objectives-developing lesson plans, incorporating learning objectives, instructional strategies, materials needed and assessment methods. Micro teaching in controlled environments, often with peers to refine lesson delivery and receive feedback.
- 4) Content mapping-the concept mapping is done through mind mapping software and students prepare content outline for each unit.
- 5) Identifying varied student abilities-sessions focused on differentiated instruction, teaching methodologies, and use of technology in classroom. Training is given for handling diverse classroom situations, maintaining discipline, and fostering a positive environment is provided.
- 6) Collaborative learning- students are trained for team teaching preparation for promoting collaboration and shared responsibility. Peer feedback is collected for constructive feedback.
- 7) Mentor ship meetings- are organized for mentors at the school for discussing the content to be covered, methods of teaching etc. Personal and professional goals are set for the internship period often with the guidance of the mentor.
- 8) Understanding school environment- Informal meetings with school staff and teachers are provided to build rapport with the school community.




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- 9) Classroom management-setting clear expectations, establishing routines, implementing positive reinforcement, and plan how to handle potential disruptions or challenging behaviors are dealt in this session.
- 10) Understanding student needs- learning about student's background, special needs, language barriers, and learning difficulties. Here differentiated instruction is set for meeting diverse learning needs.
- 11) Mock-teaching-practice delivering lessons in front of peers or mentors are done to build confidence.
- 12) Reflective practices-students engage in reflective practices by thinking critically about approaches of teaching and philosophy of teaching. Personal goals are set for teaching practice and identifying areas for improvement.
- 13) Self-care and stress management-students develop strategies to manage stress and maintain work-life balance during teaching practice.
- 14) Technology integration-students learn how to use classroom technology to enhance student engagement.
- 15) Legal and ethical considerations-students are familiarized with legal and ethical issues related to teaching, developing student confidentiality, cyber laws, and mandatory reporting requirements.
- 16) Collaboration and communication-Students plan to collaborate with other teachers, supporting staff, and parents to support student learning. They develop effective communication skills for interacting with students, parents and colleagues.
- 17) Exposure to Braille/Indian language/Community engagement-Training and provision is given for handling multilingual classrooms and handling inclusive classrooms.


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Documentary Evidence

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(AFFILIATED TO MAHATMA GANDHI UNIVERSITY & RECOGNISED BY THE NCTE)
NAAC ACCREDITED



PRACTICAL ON
ICT Material Preparation

B.Ed. COURSE 20 - 20

NAME *ANAMIKA N S*

OPTIONAL SUBJECT *PHYSICAL SCIENCE*

REG. NO: *233240114389* YEAR *2023-2025*

Certified that this is a Bonafide record of practical

Work done by the trainee during the year 2023-2025

[Signature]
Principal



[Signature]
Faculty in charge

Submitted for the Practical held on.....

INTRODUCTION

An organic compound is defined as any compound whose molecules contain carbon and hydrogen (also known as " hydrocarbons") or compound that is the derivative of it. The chemical reaction of some organic compounds and the properties and preparation of some organic compounds properties and uses of soap and detergents are discussed in this ICT material. The primary goal of a learning material is to provide educators and learners with resources that effectively conveys information ,support understanding and active encouragement in encouraging learning. Information and communication technologies (ICT) is defined as a diverse set of technological tools and resources used to transmit, store, create, share or exchange information. This ICT material contains a brief description about the lesson **Chemical Reactions of Organic Compounds** and three worksheets and their answer keys. The learning material with almost 25 pages will be helpful for both learners and educators.



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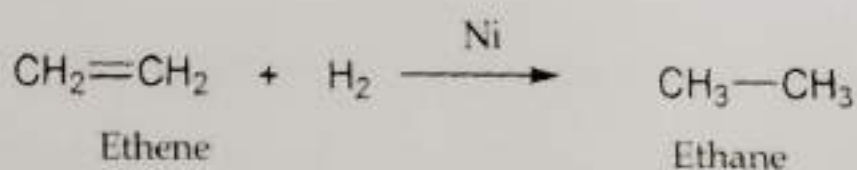
CHEMICAL REACTIONS OF ORGANIC COMPOUNDS

• Chemical Reactions

Addition Reaction

A reaction involving addition of atom or molecules to the double or the triple bond of an unsaturated compound so as to yield a saturated product is known as addition reaction.'

E.g. : Addition reaction of ethylene with hydrogen in presence of Nickel



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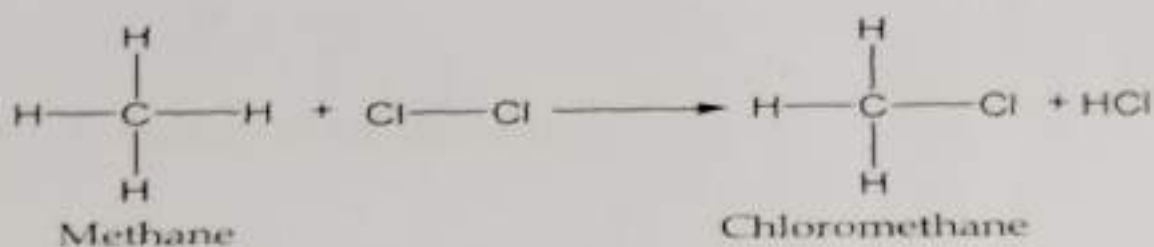
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Substitution Reaction

The substitution reaction is defined as a reaction in which the functional group of one chemical compound is substituted by another group or it is a reaction which involves the replacement of one atom or a molecule of a compound with another atom or molecule.

E.g. : Substitution reaction of Methane with chlorine



Polymerization

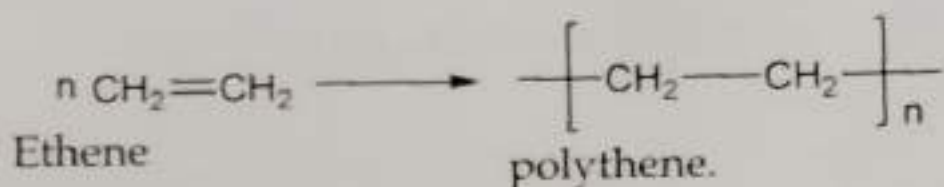
Polymerization, any process in which relatively small molecules, called monomers, combine chemically to produce a very large chainlike or network molecule, called a polymer.

E.g.: Polymerization reaction of ethene to polythene



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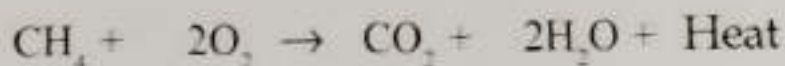
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Combustion of hydrocarbon

Hydrocarbon combustion refers to the chemical reaction where a hydrocarbon reacts with oxygen to create carbon dioxide, water, and heat.

E.g. : Combustion of Methane



Thermal Cracking

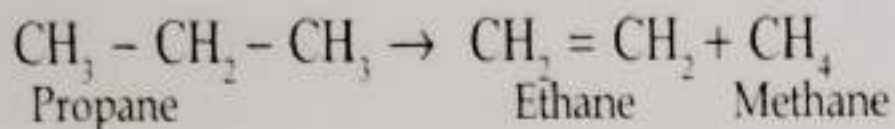
Some hydrocarbons with high molecular masses when heated in absence of air undergo decomposition to form hydrocarbons with lower molecular masses.



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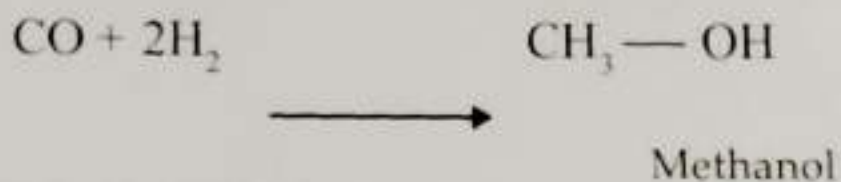
- E.g. : Thermal cracking of propane



Organic compounds

Alcohol (X-OH)

- Methanol (CH₃-OH)

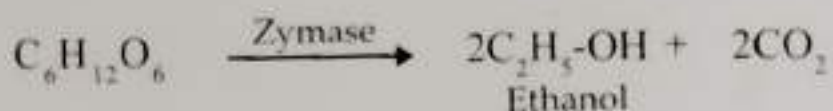
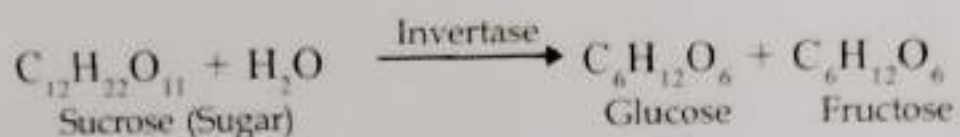


- Ethanol (CH₃-CH₂-OH)

Industrial preparation

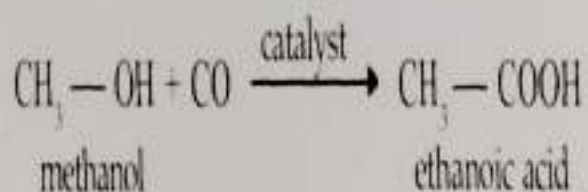



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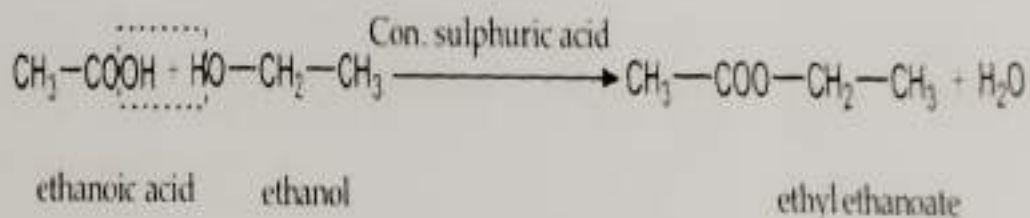
Carboxylic acid (X-COOH)

Industrial preparation of Ethanoic acid



Esters (X-CO-X)

Formation of Esters




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Soap


- Formed by the reaction of fats and oils with alkali.
- Do not lather in Hard water.



Detergent

- Made from hydrocarbon obtained from coal and petroleum
- Lather well in Hard water.




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WORKSHEET -1

CHEMISTRY

Score: 25

Time : 30 minutes

Each question 1 to 2 carries 1 score

1. PVC is used for the preparation of pipes. What is the name of its monomer?


2. Which of the following molecule undergo addition reaction?
(Methane, ethane, propene, butane)

Each question from 3 to 5 carries 2 score

3. The major component of cooking gas is butane (C_4H_{10})

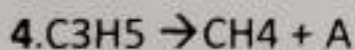
a) Write the chemical equation of reaction when butane undergo combustion.




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b) Identify the product obtained when Butane undergo thermal decomposition.

[C₅H₆, C₅H₁₂, C₃H₆, C₆H₁₂]



a) Give the molecular formula of A.

b) To which category does compound A belong?

(Alkane, Alkene, Alkyne)

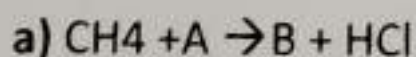
5. Examine the equation given CH₂=CH-CH₃ + H₂ → CH₃-CH₂-CH₃

a) Choose the saturated and unsaturated hydrocarbons in the above equation?

b) By which name is this type of reactions are known?

Each question from 6 to 8 carries 3 score

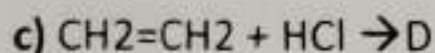
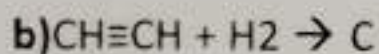
6. Fill the blanks using suitable chemicals.



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7. a) Different stages in the manufacture of a substance is given below Fill in the blanks.

A



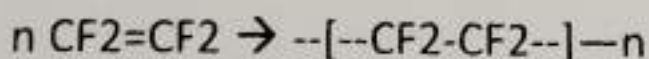
Zymase



b) Which among the following compounds must react with product B to get an ester?


[CH_3CHO , $\text{CH}_3\text{-COOH}$, $\text{CH}_3\text{-CH}_2\text{-CH}_2\text{-OH}$]

8. A polymerization reaction is given



a) Name the monomer.




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b) What is the name of the polymer?

c) Give any one use of the polymer.

Each question from 9 to 10 carries 4 score

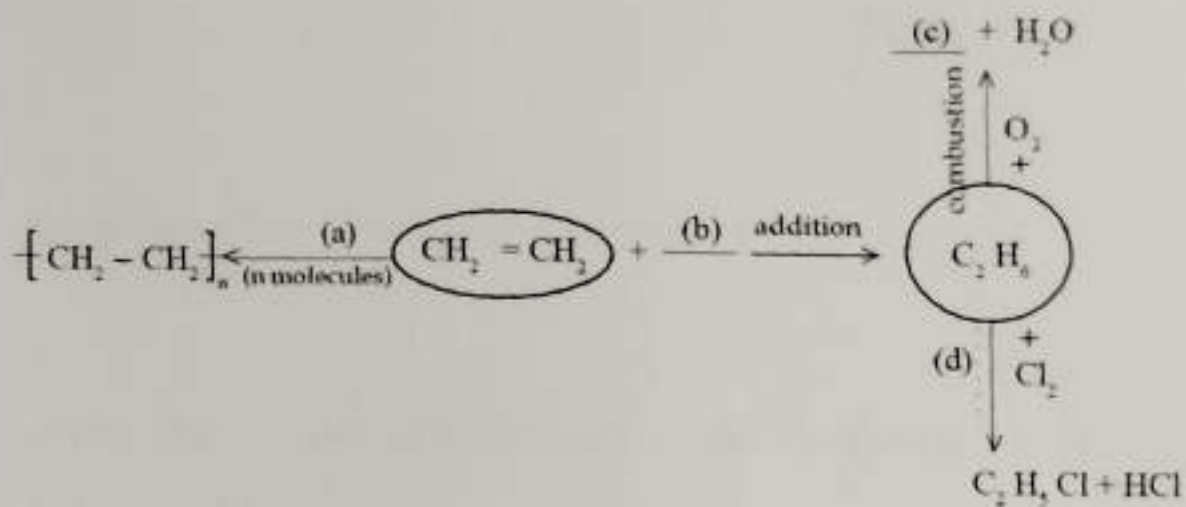
9.

Reactants	Products	Name of chemical reaction
a) $\text{CH}_4 + \text{Cl}_2$	$\text{CO}_2 + \text{H}_2\text{O}$	Addition reaction
b) $\text{C}_3\text{H}_8 + \text{O}_2$	$\text{C}_2\text{H}_4 + \text{CH}_4$	Substitution reaction
c) $\text{CH}_2=\text{CH}_2 + \text{H}_2$	$\text{CH}_3\text{Cl} + \text{HCl}$	Thermal decomposition
d) $\text{CH}_3\text{-CH}_2\text{-CH}_3 + \text{Heat}$	$\text{CH}_3\text{-CH}_3$	Combustion

10. Complete the reaction by finding out a,b,c and d




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WORKSHEET - 2

CHEMISTRY


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Score: 25

Time: 30 minutes

Each question from 1 to 2 carries 1 Score

1. write the two Products formed by the the thermal cracking of $\text{CH}_3\text{-CH}_2\text{-CH}_3$.

2. which among the following can undergo polymerization reaction?

(C_3H_8 , C_2H_4 , CH_4 , C_4H_{10})

Each question from 3 to 5 carries 2 score

3. $\text{CH}_4 + \text{Cl}_2 \rightarrow \text{A} + \text{HCl}$

a) what is the name of compound A?

b) To which type dies this reaction belongs?



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(Addition reaction, Substitution reaction, Combustion, polymerization)

4. Some equations are given

- $\text{CH}_2=\text{CH}_2 + \text{A} \rightarrow \text{CH}_3-\text{CH}_3$
- $\text{CH}_3-\text{CH}_3 + \text{Cl}_2 \rightarrow \text{B} + \text{HCl}$

a) Find out A and B.

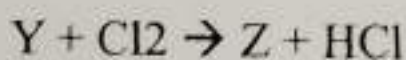
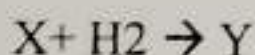
b) Write down the name of the first reaction.

5. PVC is a polymer commonly used for making pipe

a) what is polymerization?

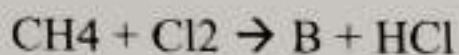
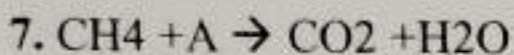
b) Draw the structure of monomeric unit of poly vinyl chloride.

Each question from 6 to 8 carries 3 score



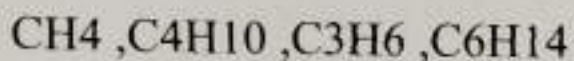
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- a) Write the structural formula of the compound X, Y, and Z
b) Which type of chemical reaction is implied by C?



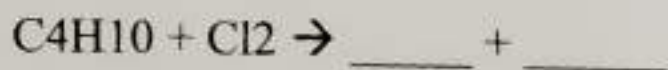
- a) Find A, B and C and name type of reaction in each of the above equation.


8. Given below are certain hydrocarbons



- a) Which among this can undergo addition reactions?

- b) Complete the following reactions

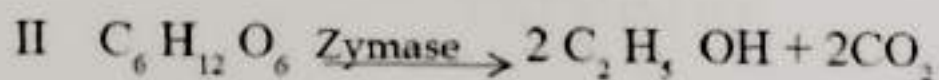
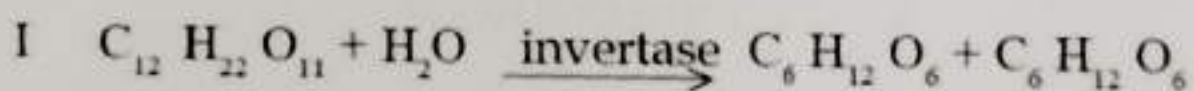



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Each question from 9 to 10 carries 4 score

9. What are a,b,c and d

Reactions A	Product B	Name of the reaction B
$\text{CH}_3\text{-CH}_3 + \text{Cl}_2$	(a)	Substitution reaction
$\text{C}_2\text{H}_6 + \text{O}_2$	$\text{CO}_2 + \text{H}_2\text{O}$	(b)
$n\text{CH}_2=\text{CH}_2$	(c)	Polymerization
$\text{CH}_3\text{-CH}_2\text{-CH}_2$	$\text{CH}_2=\text{CH}_2 + \text{CH}_4$	(d)



10. The equation for the preparation of 8 to 10 % of alcohol is given



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- a) What is the alcohol obtained by this process called ?
- b) How is it converted into rectified spirit?
- c) What is meant by methylated spirit?
- d) How is power alcohol prepared?

WORKSHEET -3


CHEMISTRY

Score: 15

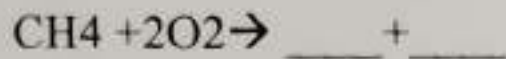
Time: 30minutes

Answer any **all question** from 1 to 3 . Each carries 1 score




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1. A) Complete the following reaction.



B) It is an example for _____

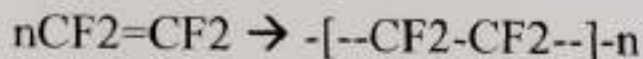
(displacement reaction, thermal cracking, Combustion)

2. Purest ethanol is called _____.

3. What is addition reaction? Give any example.

Answer all question from 4 to 7 .Each carries 3 score

4. Polymerization reaction of Teflon is given



a) Identify the monomer of this reaction.

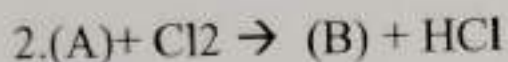
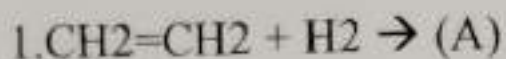
b) What is the name of the isomer?

c) Give one use of Teflon.

5. See the chemical equation given below .




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a) Identify A and B

b) What are called reactions 1 and 2

6. Soap and detergents are used for washing

a) Suppose you are decided to make soap in your classroom. List out the names of the required substance.

b) write down one merits and demerits of detergent over soap.

7. a) Briefly explain the Industrial preparation of ethanol.

b) Write any two uses of ethanol.

ANSWERS

WORKSHEET -1

1. Vinyl chloride




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2. Propene

3. A) $2 C_4H_{10} + 13O_2 \rightarrow 8 CO_2 + 10 H_2O$

B) C_3H_6

4. a) C_2H_4

b) Alkane

5. a) $CH_2=CH-CH_3$ – unsaturated

$CH_3-CH_2-CH_3$ – saturated

b) Addition reaction

6. A - Cl_2

B- CH_3Cl

C- $CH_2=CH_2$

D- CH_3-CH_2-Cl

7. a) A – invertase

B- $2C_2H_5OH$


b) CH_3COOH

8. a) Tetrafluoroethylene

b) Teflon

c) Used in the inner coating of nonstick cookware




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9.

Reactants	Products	Name of reaction
a) $\text{CH}_4 + \text{Cl}_2$	$\text{CH}_3\text{Cl} + \text{HCl}$	Substitution Reaction
b) $\text{C}_3\text{H}_8 + \text{O}_2$	$\text{CO}_2 + \text{H}_2\text{O}$	Combustion
c) $\text{CH}_2=\text{CH}_2 + \text{H}_2\text{O}$	CH_3-CH_3	Addition reaction
d) $\text{CH}_3-\text{CH}_2-\text{CH}_3$ + HEAT	$\text{C}_2\text{H}_4 + \text{CH}_4$	Thermal decomposition

10. a) polymerisation

b) H_2

c) CO_2


d) Substitution

WORKSHEET -2

CHEMISTRY

1. $\text{CH}_2=\text{CH}_2 + \text{CH}_4$




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2. C₂H₄

3. A) CH₃-Cl

B) Substitution reaction

4. a) A. H₂

B. CH₃-CH₂-Cl

b) Addition Reaction



5. a) Polymerization is a process through which a large number of monomer molecules react together to form a polymer.

b)

6. a) X -CH₂=CH₂

Y- CH₃-CH₃

Z-CH₃-CH₂-Cl

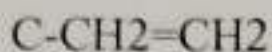
b) Substitution

7. A-202

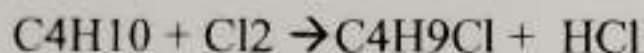
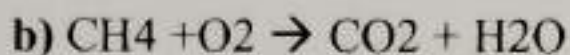
B -CH-CH₃Cl




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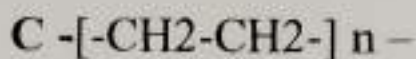


8. a) C_3H_6



9. A $-\text{CH}_3-\text{CH}_2-\text{Cl} + \text{HCl}$

B -Combustion



D -Addition


10. a) Wash

b) By distillation

c) Denatured alcohol which contains ethyl alcohol with 5% methyl alcohol, a coloured dye, and some pyridine.

d) Power alcohol is a liquid mixture that contains petrol, Ethanol, and a small amount of benzene.




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WORKSHEET-3

CHEMISTRY

1. a) $\text{C}_2\text{H}_5\text{CO}_2\text{H} + 2\text{O}_2 \rightarrow 2\text{CO}_2 + 2\text{H}_2\text{O}$

b) Combustion

2. Absolute alcohol

3. Reactions in which unsaturated organic compounds react with other molecules to form saturated compound are called addition reaction.

4. a) $\text{CF}_2=\text{CF}_2$

b) Tetrafluoroethane


c) Teflon is used in non stick cook wares.

5. a) A. CH_3-CH_3

B. $\text{CH}_3-\text{CH}_2-\text{Cl}$

b) 1. Addition




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2. Substitution

6. A) i) coconut oil or any vegetable oil.

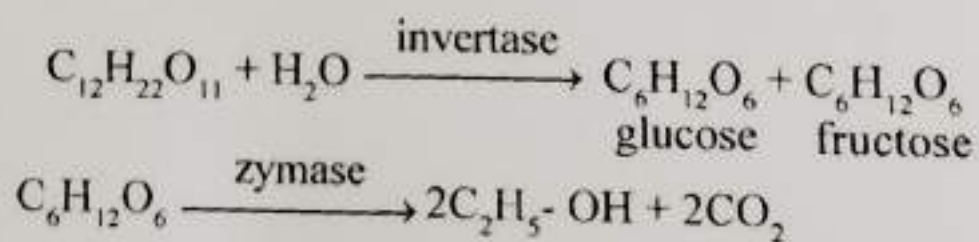
ii) Sodium hydroxide / potassium hydroxide


B) i) Detergents are effective in hard water. But soap doesn't lather in hard water.

ii) The use of detergents are detrimental to aquatic animals. But soap is not harmful to environment.

7. a) Ethanol is prepared by fermentation of sugar solution or molasses using yeast.

The invertase present in the yeast converts the glucose and fructose into ethanol.




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The dilute ethanol solution obtained by this process is called wash. When wash is subjected to fractional distillation 95.6 % ethanol solution is obtained.

b. Used as solvent in manufacturing other organic compounds

Used as an additive to automobile fuel.



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Report

As part of B.Ed. curriculum I prepared an ICT instruction essential based on the topic **Chemical reaction of organic compounds** Chapter 7 of standard 10. I prepared ICT material in Microsoft word which include about 25 pages. Each page is highly informative. It also contains 3 worksheets and their corresponding answer keys. We use texts images pictures etc. for making the material effective for learning. The use of audio visual aids which will be helpful for maintaining attention and raising interest of learner towards the particular subject. This material is prepared in the form of simple to complex manner. This chapter mainly deals with different types of organic reactions ,organic compounds, soaps and detergents.

9/10/24



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PRACTICUM ON
E.D.U.103: DEVELOPMENTS AND RESOURCES IN
EDUCATIONAL TECHNOLOGY
B.Ed. COURSE 2023 - 2025

NAME... ANAMIKA N S

OPTIONAL SUBJECT .. PHYSICAL SCIENCE

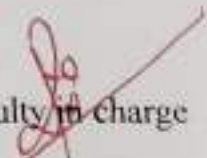
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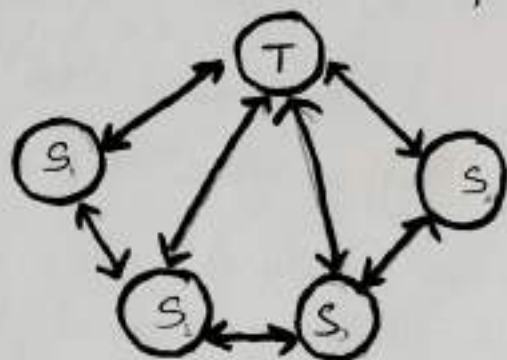
INTRODUCTION

What is interaction?

Ned. A. Flinders defines, "Teaching as an interactive process. Interaction means participation of students and teacher in the process of teaching."

In this process teacher influences the students; students also interacts with the teacher. Interaction takes place between the students themselves also.

It means in the process of teaching, everybody interacts with every other person involved in the process.



T, Teacher
S₁, S₂, S₃, S₄ students

Teacher influences students through lecture, ask questions, criticizing, giving directions etc.

Students reacted to teacher's lecture and ~~question~~ question through giving responses

It is interaction between teacher and student.



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INTERACTION ANALYSIS

Interaction Analysis is a process of encoding and decoding a pattern of interaction between the communicator and the receiver.

Encoding helps in recording the events in a meaningful way and decoding is used to arrange the data in a useful way and then analyzing the behaviours and interactions in the classroom interaction.

There are four main techniques to observe the interaction systematically. These are:-

1. Flanders Interaction Analysis Categories System (FIACS)
2. Reciprocal Category System (RCS)
3. Equivalent Talk Categories (ETC)
4. Verbal Interaction Category System (VICS)

Flanders Interaction Analysis Technique is most suitable and widely used technique in the field of research all over the world.

Characteristics of Interaction Analysis

1. The classroom verbal interaction can be made more effective.
2. The teacher can increase student participation in his teaching.
3. The direct behaviour of teacher may be shifted to indirect behaviour, which is more suitable in democratic way of life.
4. The taprecorder and videotape can be used for recording the classroom events. The trainee can encode and decode his own behaviour.



5. This technique can be also combined with other feedback device such as microteaching and simulated teaching.

FLANDERS INTERACTION ANALYSIS CATEGORY SYSTEM

Ned. A. Flanders developed a system of interaction analysis to study what is happening in a classroom when a teacher teaches. It is known as Flanders Interaction Analysis Categories System (FIACS)

Flanders and others developed this system at the university of Minnesota, USA between 1955 and 1960

Flanders classified total verbal behaviour into 10 categories. Verbal behaviour comprises teacher talk, student talk and Silence or confusion.

The ten categories are mentioned as under:

1. Teacher talk - 7 categories
2. Pupil talk - 2 categories
3. Silence or confusion - 1 category

Thus the first seven categories include teacher talk. Next two categories include pupil talk. The last tenth category includes the small spans of silence or pause or confusion.

The first 7 categories or teacher talk has been bifurcated into a) indirect talk b) direct talk.

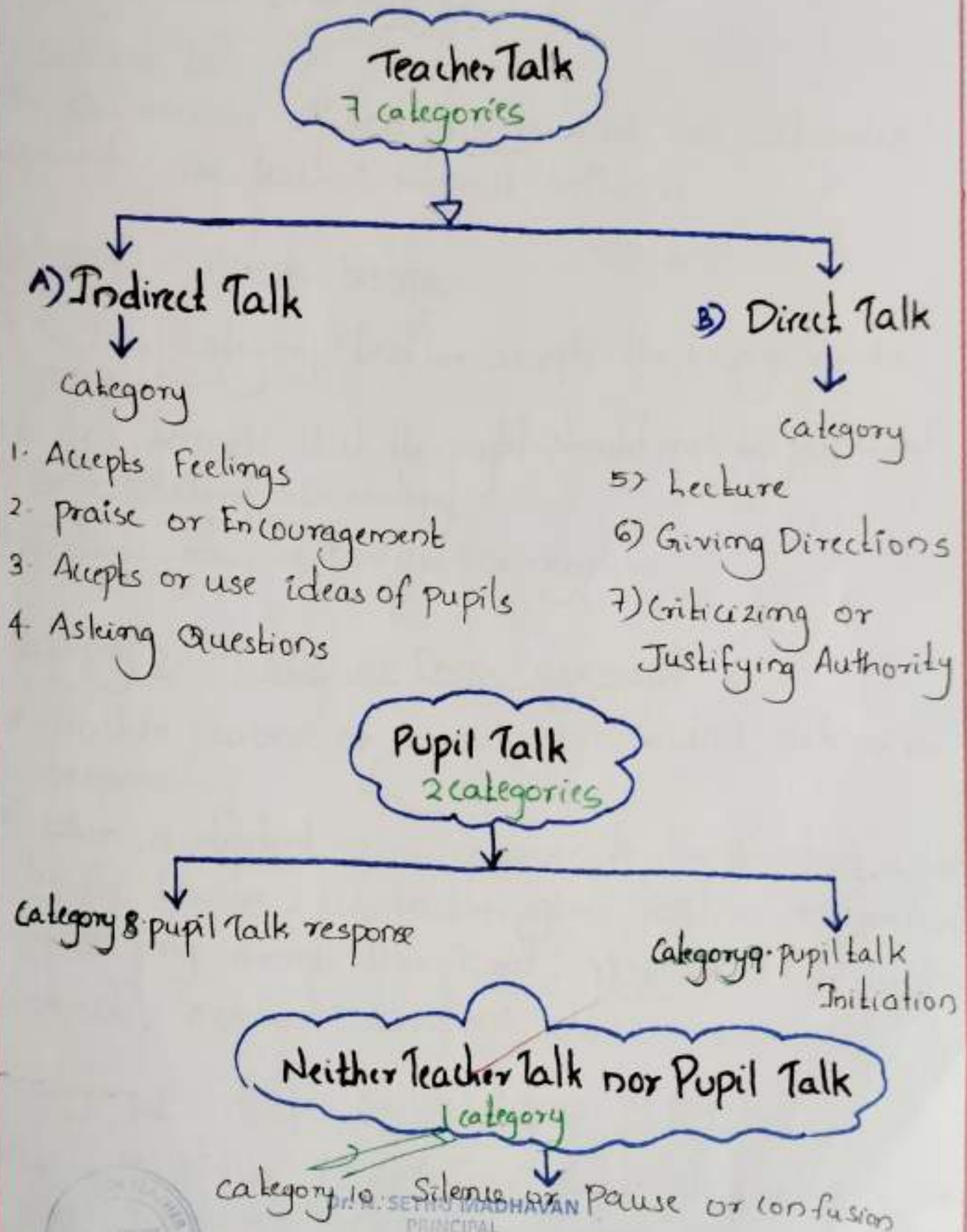




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FIACS FLOW CHART



MEANING OF VARIOUS CATEGORIES

1. Teacher Talk (7 categories)

A) Indirect Talk

In this method of analysis, the first four categories represent the teacher's indirect influence

Category 1:- Accepts Feelings

- * In this category, teacher accepts the feelings of the pupils
- * He feels himself that the pupil should not be punished for exhibiting his feelings
- * Feelings may be positive or negative

Category 2:- Praise or Encouragement

- * Teacher praises or encourages student action or behavior.
- * When a student gives answer to the question asked by the teacher, the teacher gives positive reinforcement by saying words like 'good', 'very good', 'better', 'correct', 'excellent', 'carry on', etc.

Category 3:- Accepts or Uses Ideas of Pupils

- * It is just like 1st category. But in this category, the pupil ideas are accepted only and not his feelings

* If a pupil passes on some suggestions, then the teacher may repeat in nutshell in his own style or words

* The teacher can say, 'I understand what you mean' etc. Or the teacher clarifies, builds or develops ideas or suggestions given by a student.

Category 4: Asking Questions

* Asking question about content or procedure, based on the teacher ideas and expecting an answer from the pupil.

* Sometimes, teacher asks the question but he carries on his lecture without receiving any answer. Such questions are not included in this category

B) Direct Talk.

• Next 5th to 7th categories represents the teacher's direct influence.

Category 5: Lecturing / Lecture

* Giving facts or opinions about content or procedure expression of his own ideas, giving his own explanation or citing an authority other than a pupil.

Category 6: Giving Directions

The teacher gives directions, commands or orders or initiation with which a pupil/student is

expected to comply with,

- open your books.
- stand upon the benches.
- solve 4th sum of exercise 5.3.

Category 7:- Criticizing or Justifying Authority

* When the teacher asks the pupils not to interrupt with foolish questions, then this behaviour is included in this category.

* Teachers 'what', and 'why' also come under this category.

2. Pupil Talk (2 categories)

Category 8:- Pupil Talk Response

* It includes the pupils talk in response to teacher's talk

* Teacher asks question, student gives answer to the question.

Category 9:- pupil initiation

* Talk by pupils that they initiate.

* Expressing own ideas; initiating a topic, freedom to development opinions and a line of thoughts like asking questions; going beyond the existing structure.

3. Silence or Pause or Confusion (1 category)

Category 10:- Silence or Pause or Confusion

* pause short periods of silence and period of confusion in which communication cannot be understood by the observer.

CONSTRUCTION OF INTERACTION MATRIX

observations

10, 4, 8, 2, 5, 6, 9, 7, 5, 1, 3, 6, 5, 5, 1, 2, 3
 8, 7, 9, 1, 8, 2, 5, 6, 4, 4, 2, 1, 10

Pairs

(10,4) (4,8) (8,2) (2,5) (5,6) (6,9) (9,7) (7,5)
 (5,1) (1,3) (3,6) (6,5) (5,5) (5,1) (1,2) (2,3)
 (3,8) (8,7) (7,9) (9,1) (1,8) (8,2) (2,5) (5,6)
 (6,4) (4,4) (4,2) (2,1) (1,10)

Interaction Matrix Table

Category	1	2	3	4	5	6	7	8	9	10	Total
1		✓	✓					✓		✓	4
2	✓		✓		✓						4
3						✓		✓			2
4		✓		✓				✓			3
5	✓				✓	✓					5
6				✓	✓				✓		3
7					✓				✓		2
8		✓					✓				3
9	✓						✓				2
10			✓	✓							2
Total	4	4	3	3	5	3	2	3	2	1	30

INTERPRETATION OF INTERACTION MATRIX

1. Teacher Talk Ratio/Percentage of Teacher Talk (TT)

$$TT = \frac{C_1 + C_2 + C_3 + C_4 + C_5 + C_6 + C_7}{N} \times 100$$

$$\frac{4+4+3+3+5+3+2}{29} \times 100$$

$$= \frac{24}{29} \times 100 = 82.758$$

2. Indirect Teacher talk Ratio (ITT)

$$ITT = \frac{C_1 + C_2 + C_3 + C_4}{N} \times 100$$

$$\frac{4+4+3+3}{29} \times 100$$

$$= \frac{14}{29} \times 100 = 48.27$$

3. Direct Teacher Talk Ratio (DTT)

$$DTT = \frac{C_5 + C_6 + C_7}{N} \times 100$$

$$\frac{5+3+2}{29} \times 100$$

$$= \frac{10}{29} \times 100 = 34.48$$



4 pupil's Talk Ratio/Percentage of Pupil Talk (PT)

$$\begin{aligned}PT &= \frac{C_8 + C_9}{N} \times 100 \\ &= \frac{3+2}{29} \times 100 \\ &= \frac{5}{29} \times 100 = 17.24\end{aligned}$$

5 Silence or Confusion Ratio (SC)

$$\begin{aligned}SC &= \frac{C_0}{N} \times 100 \\ &= \frac{1}{29} \times 100 \\ &= \frac{100}{29} = 3.44\end{aligned}$$

6 Indirect and Direct Ratio (I/D)

$$\begin{aligned}\frac{I}{D} &= \frac{C_1 + C_2 + C_3 + C_4}{C_5 + C_6 + C_7} \times 100 \\ &= \frac{4+4+3+3}{5+3+2} \times 100 \\ &= \frac{14}{10} \times 100 = 140\end{aligned}$$



ADVANTAGES OF FIACS

1. It is an effective tool/instrument to measure the social-emotional climate in the classroom.
2. It is also used for in-service teachers.
3. It provides feedback to the pupil teachers.
4. It is an objective and reliable method for observation of classroom teaching.
5. It is mostly teacher talk oriented.
6. It is used to compare the behaviour of teachers at different age levels, gender, subject etc.
7. It is much usefull in microteaching and team teaching.

LIMITATIONS

1. It consumes much time in preparing 10x10 matrix without which, interpretations are not possible.
2. Less attention has been paid towards pupil-talk
3. The observers have to be trained in order to code correctly.
4. Classroom interaction of pupil type is not considered here.
5. The systems of coding and decoding procedure very difficult and expensive.



CONCLUSION

In Flanders Interaction Analysis the teacher talk is more, so the teacher is more active.

The indirect influence of teacher is more than its direct influence.

The students are also active like teacher and it can be seen from their percentages, periods of silence and confusion relatively to which may be considered negative.

References

- <https://images.app.goo.gl/wosomjhm9170w076>
- <http://www.slide share.net/deivamuniyad/Flanders-interaction-Analysis-system>
- <https://www.adda247.com/teaching-jobs-exam/Flanders-interaction-category-system/amp/>



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PRACTICAL ON

EDU 107-1 STUDY ON PREVAILING PRACTICES OF RESPECTIVE
ELECTIVE COURSE
IN SCHOOL.

B.Ed. COURSE 20 - 20

NAME ANAMIKA N S

OPTIONAL SUBJECT Physical Science

REG. NO: 233240114389 YEAR 2023-2025

*Certified that this is a Bonafide record of practical
Work done by the trainee during the year 2023- 2025*

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[Signature]
Faculty in charge

Submitted for the Practical held on.....

Semester-1

A study on Guidance and Counselling
cell in Government Girls Highersecondary
School Perumbavoor



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Sl No	TOPIC	PAGE NO	REMARKS
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3	NEED AND SIGNIFICANCE		
4	OBJECTIVES		
5	ORGANISATIONAL STRUCTURE		
6	THE SCHOOL GUIDANCE COMMITTEE		
7	REPORT		
8	SUGGESTION		
9	CONCLUSION		
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INTRODUCTION

Guidance and counseling play a pivotal role in supporting individuals through life's challenges and transitions. Rooted in understanding, empathy, and expertise, these practices aim to empower individuals to navigate personal, academic, and career-related decisions. By fostering self-awareness and providing valuable insights, guidance and counseling contribute to holistic development, helping people build resilience and make informed choices on their journey towards fulfillment and well-being.

In the educational landscape, guidance and counseling serve as integral pillars, offering crucial support to students as they navigate the complexities of academic, personal, and social development. School-based guidance programs are designed to nurture students' holistic growth, providing a framework for addressing challenges, making informed decisions, and fostering a positive learning environment. Through a collaborative partnership between educators and counselors, these programs strive to empower students with skills and knowledge needed for their success.

NEED AND SIGNIFICANCE

Guidance and counseling play a crucial role in personal and academic development. They provide support for individuals in making informed decisions about education, career, choices, and personal challenges. This process helps enhance self-awareness, resilience and goal setting, ultimately contributing to a more fulfilling and successful life. It assists individuals in understanding themselves better, fostering self-awareness, and developing a positive self-concept. Guidance supports individuals in exploring career options, understanding market trends, and making informed career choices aligned with their skill and interests. Counseling provides a safe space for individuals, to express and manage their emotions, helping them cope with stress, anxiety, and other mental health concerns. It equips the individuals with problem solving skills, helping them tackle challenges and make effective decisions. Guidance and counselling are essential for ~~personal~~ academic and career development, offering support and tools for individuals to navigate life's complexities successfully.

OBJECTIVES

- * Foster self-awareness, self-esteem, and emotional well-being.
- * Enhance academic performance through Study skills, goal setting and Subject Selection guide.
- * Develop effective decision-making and problem solving skills.
- * Provide individuals with essential life skills and techniques.
- * Assisting Students in setting realistic and achievable personal and academic goals, encouraging motivation and persistence.
- * Helping Students navigate transitions, such as moving from one grade to another or transitioning to higher education, by providing guidance and support.



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SCHOOL GUIDANCE COMMITTEE

The compositions of the school guidance committee includes: -

* The Principal or Headmaster :-

The principal or headmaster of the school should be the chairman or chairperson of the school guidance committee

* Counsellor :-

The school counsellor or guidance master act as the secretary cum government of the school guidance committee.

* Staff representative :-

The senior teacher of the school act as an ex-officio member of the school guidance committee

* Medical officer :-

The medical officer of the school act as a member of the school guidance committee

* PTA member :-

PTA member should be act as the member of the school guidance committee



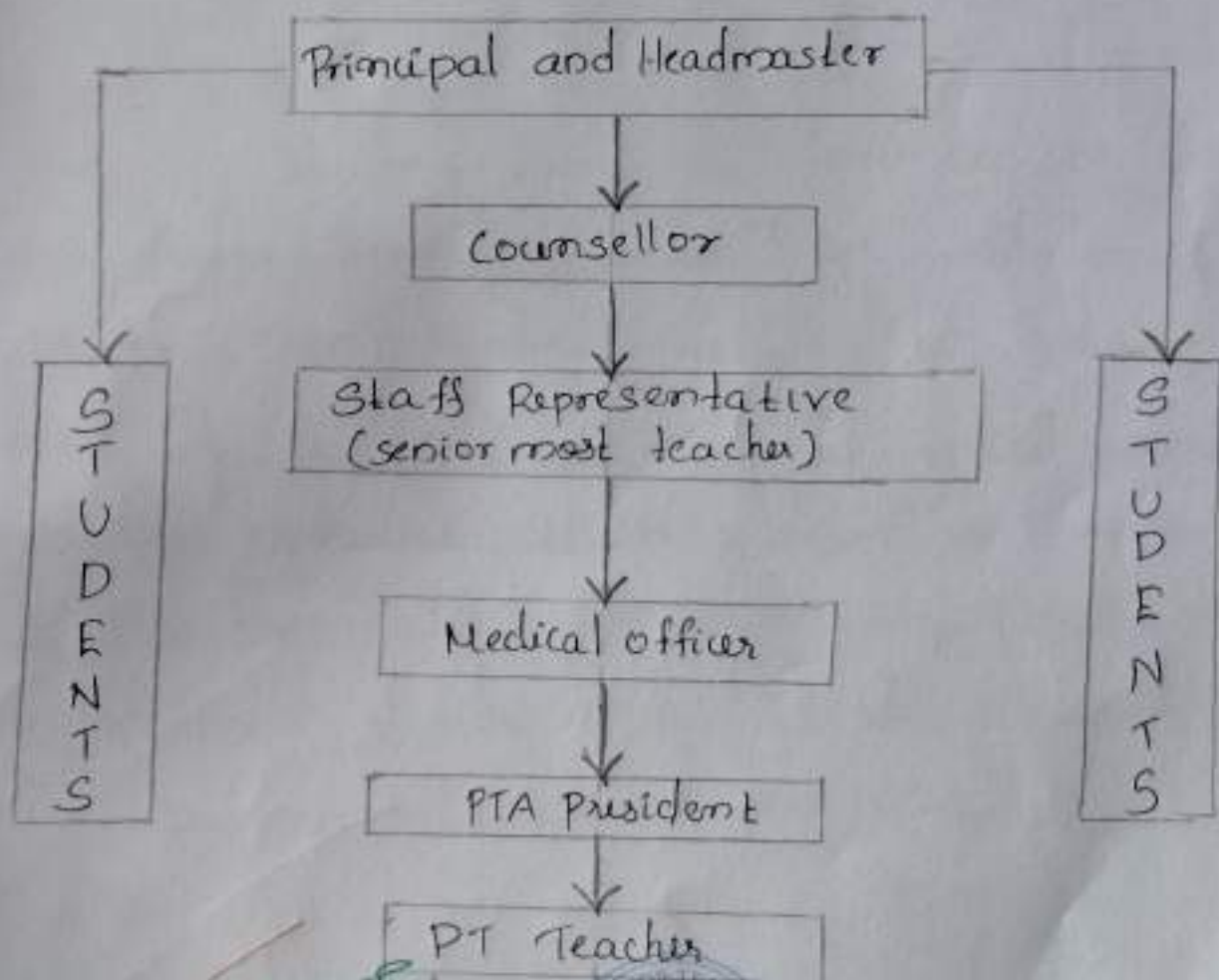
* Physical education teacher:-

should be act as a member of school guidance committee.

few experts in different fields:-

Available in the community should be a part of school guidance committee.

ORGANISATIONAL STRUCTURE



The organization of guidance service is not the major responsibility of any one person rather it is the joint responsibility of the headmaster, the counsellor, the career master, teacher, career administrator, specialist and community members. They have to play important role for making any guidance programme in the school a grand success.


REPORT

We, students went to Peumbavoor Government Girls Higher Secondary School, on 30/10/2023 at 12:30 pm. This one visit helped us to know more about the Guidance and Counselling cell and what their activities. It has been understood that guidance and counselling is essential in every school working days. As the school guidance and counselling teacher was available we were able to interact for many hours. Mrs. Anshu ~~is~~ the student counsellor of the school. The teacher had given us a detailed

Description about the activities that have been done there in future. The counsellor had given us clear and perfect answers to all the questions from our side.



Counselling is given to children who are backward in studies and children suffering from various physical and mental problems & fears. The counsellor added that by giving counselling in this way positive changes are seen in the children. I felt very happy when heard the counsellor assured that the school counselling cell will continuously work better in future.


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SUGGESTION

- * The counselling room seemed to be lack of professional touch. If the room setting is improved, the counselling will feel to improve.
- * Sometimes the lack of proper education on the part of the children's parents hinders the revolution.
- * In some case the guidance teacher may be unable to give a sense of belonging.
- * There is high risk of getting too formal.
- * It was felt that it would be good to give group counselling to the children of each section at least once a month.
- * Ops education and training should be given to counsellors.

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CONCLUSION

Guidance and counselling in school play a crucial role in fostering students' academic, personal and social development. These services provide valuable support for students facing challenges, helping them make informed decisions about their education and future. Effective guidance and counselling contributes to a positive school environment, enhances student well-being, and ultimately contribute to academic success. Ongoing efforts to strengthen and integrate these services can lead to more confident, resilient, and well-prepared individuals as they navigate their educational journey and beyond.

REFERENCE

<https://www.slideshare.net>

<https://www.lead-academy.org>



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RECORD ON

EDU 107.2, 206.2, 302.2, 404.2 (OPTIONAL)


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Submitted for the Practical Examination held on.....

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CRITICISM LESSON PLAN



A handwritten signature in black ink, appearing to be "Dr. N. Sethu Madhavan".

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CRITICISM LESSON PLAN - I

GENERAL INFORMATION

Standard : X

Strength : 10

Date : 11/1/2024

Name of the teacher : Rameesa. Jahan. ck

Name of the school : National college for Teacher education
 unit : Electromagnetic induction
 Topic : Self induction, Inductor.

Content Overview

സെൽഫ് ഇൻഡക്ഷൻ, ഇൻഡക്ടർ

Content Analysis

a) Symbols : - AC, DC, V, W, emf

b) Formula : Ni

c) Terms : സെൽഫ് ഇൻഡക്ഷൻ, പ്രേരിത emf, ബാക്ക് emf, ഇൻഡക്ടിവ് പ്രതിരോധം, ഹിസ്റ്ററിസാലം

d) Facts :

• ഒരു കോയിലിന്റെ ഓരോ ഇൻഡക്ടറിനും ഓരോ ഹിസ്റ്ററിസാലം ഉണ്ട്. Self induction ന്റെ ഘടനയിൽ ഒരു emf പ്രേരിപ്പിക്കുന്നു.

• ഇൻഡക്ടറിന്റെ പ്രേരിത emf ന്റെ ഇൻഡക്ടിവ് പ്രതിരോധം കാരണം ഉണ്ടാകുന്നു.

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കിങ്ങ് ക്യാമ്പോൾ ഉൾപ്പെടെയുള്ള അദ്ധ്യപക ക്ഷേമ കമ്മിഷൻ ഉൾപ്പെടെ ഉൾപ്പെടെ സാഹിത്യം സംരക്ഷിച്ചു കിങ്ങ് ക്യാമ്പോൾ സർവ്വകലാശാലയിൽ തിരിച്ച വിടാൻ കഴിഞ്ഞു.

- പ്രൈമറി ഓഫ് കോളിഗിയേറ്റഡ് മാസ്റ്റർമാർ നില കിങ്ങ് ക്യാമ്പോൾ അനുപാതികമാണെന്ന്
- ഉൾപ്പെടെയുള്ള, പ്രൈമറി ഓഫ് മാസ്റ്റർമാർ തൃക്കൂല വർദ്ധിച്ചു കിങ്ങ് ക്യാമ്പോൾ ഉൾപ്പെടെയുള്ള കിങ്ങ് ക്യാമ്പോൾ ഉൾപ്പെടെയുള്ള

Concept: സെൽഫ് ഇൻവെസ്റ്റ്, ഇൻവെസ്റ്റ്, സെൽഫ് ഇൻവെസ്റ്റ്, പ്രൈമറി ഓഫ്.

Phenomenon: സെൽഫ് ക്യാമ്പോൾ പ്രൈമറി.

- Definitions:
- കോളിഗിയേറ്റഡ് മാസ്റ്റർമാർ അതേ കോളിഗിയേറ്റഡ് ഓഫ് പ്രൈമറി ക്യാമ്പോൾ പ്രൈമറി സെൽഫ് ഇൻവെസ്റ്റ്.
 - കോളിഗിയേറ്റഡ് സെൽഫ് പ്രൈമറി ക്യാമ്പോൾ പ്രൈമറി ക്യാമ്പോൾ ഇൻവെസ്റ്റ്.
 - സെൽഫ് ഇൻവെസ്റ്റ് ക്യാമ്പോൾ പ്രൈമറി



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Learning Resources chart, pictures, தமிழ்நாட்டு ஆட்கள், படபிர்வு, ബാറ്ററി ബൾബ്

Precautions ബെറ്റററി ഉപയോഗിക്കുമ്പോൾ നശിക്കരുത്.

Classroom Transaction

Process and activity

Response

Observation

Teacher നല്ല ചിരിയോടെ ക്ലാസിലേക്ക് വരുന്നു. കുട്ടികളെ
with ചെയ്യുന്നു. കുട്ടികളോട് ഗാനത്തെപ്പറ്റി ചോദിക്കുന്നു.
എന്നു കൗതുകമനുഭവിക്കാനും ചോദിക്കുന്നു. ഭിഷക് കുട്ടികളോട്
ആപരിചയം ചെയ്യാൻ തയ്യാറാണോ എന്ന്
ചോദിക്കുന്നു. സോദിനോട്, പാപ്പിരൂസ്, ബാറ്ററി,
ബൾബ് എന്നിവ എടുത്ത് കുട്ടികളെ അറിയിക്കുന്നു. അത്
വെച്ച രണ്ട് സെൻ്ററിമീറ്ററുകൾ മോടിക്കുന്നു. അതിൽ Aയും
മറ്റൊന്നിൽ Dയും കൊടുക്കുന്നു. എന്തു പീച്ച് അനക്കി
അറിയിച്ചു കൊടുക്കുന്നു. അതിൽ ഏത് സെൻ്ററിമീറ്ററിൽ
ബൾബ് വെച്ച് പ്രകാശിപ്പിക്കും എന്ന് ചോദിച്ചു സെൻ്ററിമീറ്റർ

Participation in Activities
കുട്ടികൾ മോഹത്തോടെ
ഏക ശ്രദ്ധിച്ചുകൊണ്ടിട്ടും
പങ്കെടുക്കുന്നു. കുട്ടികൾ
പരിചയം ആനുകൂല്യം
ശ്രദ്ധിക്കുന്നു.

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2. process domain

Specific objectives

The pupil develops forces skills required to develop the knowledge and understanding of the above mentioned terms, facts, concepts.

The pupil,

- രണ്ട് സെർവ്വ്കളിലെ തന്നിട്ടുള്ള ഭാഗങ്ങളിൽ തന്നെ
- ഒരു ഭാഗിലെ ചുരുക്കം തന്നെ അതേ ഭാഗിലെ മറ്റ് ഭാഗ് പ്രതിപാദിക്കുന്നതിനെ പരിശോധിക്കുന്നു
- ഒരു ഭാഗിലെ ചുരുക്കം തന്നെ അതേ ഭാഗിലെ മറ്റ് ഭാഗ് പ്രതിപാദിക്കുന്നതിനെ ഉദാഹരിക്കുന്നു

3) Creativity domain

Specific objectives

The pupil develops Creative abilities related the new knowledge.

The pupil

- Develops Creative thinking
- സെൽ 2 ഉൾപ്പെടെയും മൂലം ഉൾപ്പെടെയും ആലോചന നടത്തുകയും ചെയ്യുന്നു.
- സെൽ 2 ഉൾപ്പെടെയും ഉപയോഗിക്കുകയും അതിന്റെ അടിസ്ഥാനത്തിൽ പ്രവർത്തിക്കുന്നു



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1) Attitudinal domain

Specific objectives

The pupil develops scientific attitude and forms positive attitude towards science.

The pupil: applies and get positive attitude towards science and science teachers

- Expresses their personal feelings in constructive way
- Develops cooperative mode.

3) Application domain

Specific objectives

The pupil applies the required knowledge and skills in real situations

The pupil

- സാമ്പത്തിക ഉപയോഗങ്ങൾ ഉപയോഗിക്കാൻ ഉപയോഗ നിബന്ധനകളിൽ വിശദമാണെടുക്കുന്നു
- ഉപയോഗ ഉപയോഗിക്കുന്നു

Learning Strategies

Lecture, discussion, experiment, demonstration etc

Subjective realities

Concepts

മനസ്സിലുള്ള അറിവുകളെ പരസ്പരം വ്യക്തമാക്കുന്നതിനായി ഉപയോഗിക്കുന്നു

Skills

അവസരം ഉപയോഗിച്ച് പ്രവർത്തിക്കാൻ കഴിയുന്ന വിധത്തിൽ



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Learning Resources chart, pictures, കമിമൾകളുകൾ, പച്ചിറപ്പ്, ബാറ്റി ബൾബ്

Precautions ബെദ്റ്റ്നി ഉപയോഗിക്കുമ്പോൾ നശിക്കൂ.

Classroom Transaction

Process and activity

Response

Consideration

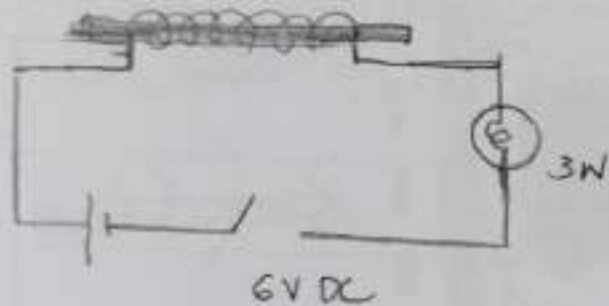
Teacher നല്ല ചിരിയോടെ ക്ലാസിലേക്ക് വരുന്നു. കുട്ടികളെ
 with ചെയ്യുന്നു. കുട്ടികളോട് ചാക്കത്തൊപ്പി വേദിക്കുന്നു.
 എന്ന് അന്തിമമുറിയിൽ വേദിക്കുന്നു. കീച്ചർകുട്ടികളോട്
 ആപരിചയം ചെയ്യാൻ തയ്യാറാണോ എന്ന്
 ചോദിക്കുന്നു. നോട്ടീബോർഡ്, പച്ചിറപ്പ്, ബാറ്റി,
 ബൾബ് എന്നിവ എടുത്ത് കുട്ടികളെ അറിയിക്കുന്നു. അത്
 വച്ച രണ്ട് സെർക്യൂട്ടുകൾ തയ്യാറാക്കുന്നു. ക്ലാസിൽ Aയും
 മറ്റൊന്നിൽ Bയും തയ്യാറാക്കുന്നു. എന്തു പ്ലിച്ച് അറക്കി
 അറിയിച്ചു തയ്യാറാക്കുന്നു. ക്ലാസിൽ എന്ന് സെർക്യൂട്ടിലാണ്
 ബൾബ് വെച്ച് പ്രദർശിപ്പിക്കുക എന്ന് ചോദിച്ചു സെൻ്റർ

Participation in Activities
 കുട്ടികൾ തയ്യാറാക്കുന്ന
 എല്ലാ ഘട്ടത്തിലുമുള്ള
 പങ്കെടുക്കുന്നു. കുട്ടികൾ
 പരിചയം ആനുകൂല്യം
 നൽകുന്നു.

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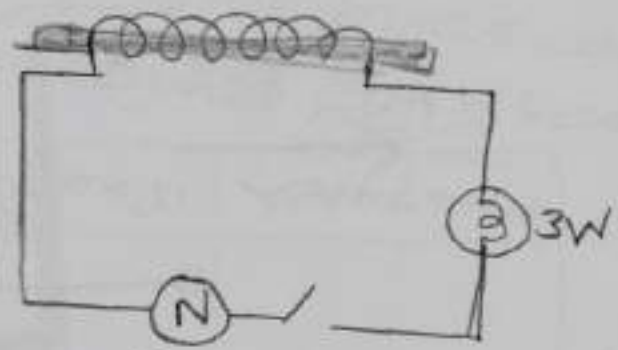
Activity-1

തന്ത്ര കോസ്റ്റം രണ്ട് പരീക്ഷണങ്ങൾ നിരീക്ഷിക്കുക



6V DC

(a)



6V AC

(b)

- 1) ഘടം സെർക്യൂട്ടിലെ ബൾബിനോട് പ്രകാശ തീവ്രത എന്ത്?
- 2) ഘടം കോണ്ടാൻ പ്രകാശ തീവ്രത കുറയുന്നത്?
- 3) ഘടം സെർക്യൂട്ടിലെ ബൾബിനോട് ഡിസ്കോ 26360 കറന്റിക് രേഖപ്പെടുത്തുക?

Observations

1) രണ്ടാമത്തെ സെർക്യൂട്ടിൽ പ്രകാശ തീവ്രത കുറയാൻ
 2) അതിൽ AC കറന്റാണ് കോസ്റ്റത്തിലൂടെ AC ചുട്ടിയാൻ
 നമുക്കുണ്ട്. അത് കോണ്ട് പ്രകാശ തീവ്രത കുറയുന്നു.
 3) രണ്ടാമത്തെ സെർക്യൂട്ടിലെ ബൾബിനോട് ഡിസ്കോ
 26360 കറന്റിക് രേഖപ്പെടുത്തുക



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Take away

ഏകദേശം ബാറ്ററിയെക്കാൾ
 25% കാര്യങ്ങൾ കൂടുതൽ
 കൂടുതൽ ലഭിക്കും
 AC DC ഘടം കറന്റുകൾ
 ചുട്ടിയാൻ കാരണം
 മനസ്സിലാക്കാൻ ഏകദേശം
 എണ്ണം

3. Skills acquired

ഏകദേശം കോണ്ടാൻ ക്ലിപ്
 കോണ്ടാൻ ചെയ്യും.
 ഏകദേശം ചുട്ടിയാൻ
 കോണ്ടാൻ കൂടുതൽ കൂടുതൽ
 കോണ്ടാൻ കൂടുതൽ കൂടുതൽ
 കോണ്ടാൻ കൂടുതൽ കൂടുതൽ

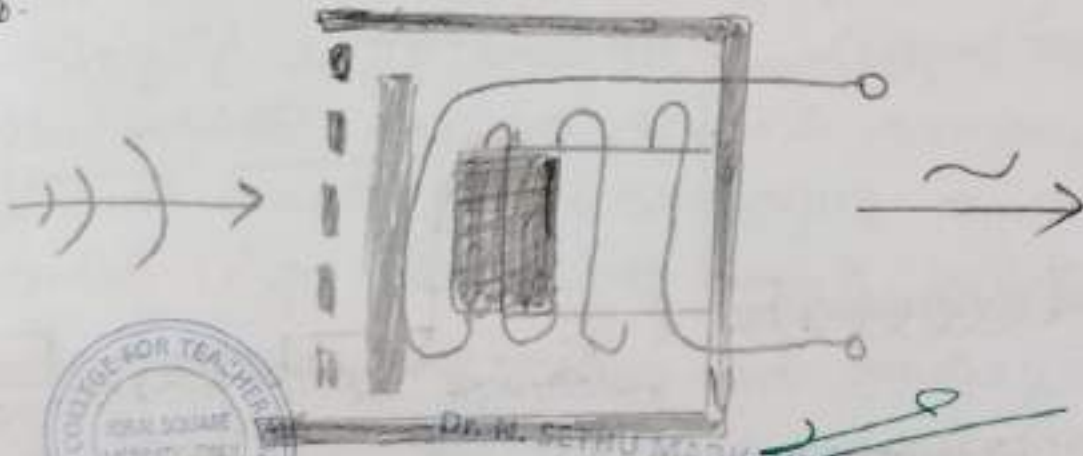
Activity - 2

വൈദ്യുതകാന്തിക പ്രവണതയ്ക്കുള്ളിൽ അടിസ്ഥാനത്തിൽ പ്രവർത്തിക്കുന്ന ഘടനകളിലും താഴെ ഉപദർശനം എഴുതുന്നതിനുള്ള പ്രധാന ഘടനകൾ തിരഞ്ഞെടുക്കുക.

Consolidation ideas

ഉപയോഗം - ശബ്ദതരംഗങ്ങളെ തിരച്ചിട്ടിരിക്കുന്ന (കൂട്ടാക്കി) മിഥി തിരച്ചിലോ പിടിച്ചെടുക്കുന്നു.

പ്രധാന ഘടനകൾ :- ഡയഫ്രം, സ്വീകർത്താവും, വേഡ്സ് കേൾക്കുന്നതിനുള്ള ഉപകരണങ്ങൾ സ്ഥിതി ചെയ്യുന്ന വേഡ്സ് കേൾക്കുന്നതിനോടുബന്ധിച്ചിരിക്കുന്ന ഡയഫ്രം തിരച്ചിലോ ചെയ്യുന്നു.



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4) Performance and presentation
രൂട്ടിങ്ങ് കൂട്ടി പ്രവർത്തനത്തിലും തിരച്ചിലോ ചെയ്തുകൊണ്ട് പ്രതികരണവും അടയാളം കാണിക്കുന്നു.

5) Reloading & findology
കൂട്ടിയിൽ ഉടനീളം രൂട്ടിങ്ങ് ഉപയോഗം ചെയ്തുകൊണ്ട് തിരച്ചിലോ ചെയ്യുന്നു. തിരച്ചിലോ ചെയ്യുന്നതിനുള്ള ഉപകരണങ്ങൾ ഉപയോഗം ചെയ്യുന്നു. കൂട്ടിയിൽ ഉപയോഗം ചെയ്യുന്നതിനുള്ള ഉപകരണങ്ങൾ ഉപയോഗം ചെയ്യുന്നു.

Activity 2.

തന്തു ക്ലാസ്സത്തിലുള്ള ഉപരിയർ പ്രതിഭാശാലന്മാർക്ക് സെൽഫ്
 ഇൻഡഗ്നൻ രീതികൾ ഉപയോഗിച്ച് (പ്രവർത്തനങ്ങൾ ഉപയോഗിച്ച്)
 (ഇടയകൾ, ജനറേഷൻ പെട്ടൻ പ്രോജിക്ടർ, ഗ്രൂപ്പ് റിപ്പോർട്ട്)

ഉപകരണങ്ങൾ	പ്രവർത്തനങ്ങൾ	സെൽഫ് ഇൻഡഗ്നൻ

ഉപകരണങ്ങൾ

പ്രവർത്തനങ്ങൾ

സെൽഫ് ഇൻഡഗ്നൻ

ഇൻഡഗ്നൻ

ജനറേഷൻ

പെട്ടൻ പ്രോജിക്ടർ

റിപ്പോർട്ട്



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 VENGOLA, PERUMBAVOOR - 683 556

4) Topic

January 11 2024ൽ
 സെൽഫ് ഇൻഡഗ്നൻ,
 ഇൻഡഗ്നൻ പ്രക്രിയകൾ
 ക്ലിപ്തം തന്നെ
 ക്ലാസ്സിൽ. ക്ലാസ്സിൽ
 അതിവേഗം നടപ്പാക്കി
 എല്ലാറ്റിലും എന്റെ Topic
 തന്നെ ക്ലിപ്തം
 പഠനം കഴിഞ്ഞു.
 എന്റെ ലക്ഷ്യങ്ങൾ
 3 കോഴ്സിംഗിന് ഉൾപ്പെട്ടിട്ടു
 ഏകദേശം അതിൽ ഒരു
 പരിഷ്കരണം കൂട്ടേണ്ടത്
 ഉള്ളിനെക്കുറിച്ചുള്ള

6-11


Review Questions

- 1) എന്താണ് അർദ്ധങ്ങൾ
- 2) വിവിധയിനം അർദ്ധങ്ങൾക്ക് ഏതെങ്കിലും ഉദാഹരണങ്ങൾ
- 3) എങ്ങനെയാണ് ഒരു അർദ്ധങ്ങൾ പ്രവർത്തിക്കുന്നത്.

Extended Activity

- 1) എന്താണ് Ac and D
- 2) D യുടെ പ്രവർത്തനത്തെക്കുറിച്ച് ഉപയോഗിക്കുക?
- 3) വിദ്യുച്ഛക്തി ഉപയോഗിക്കുന്നതിനുള്ള ഏതെങ്കിലും ഉദാഹരണങ്ങൾ?




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CRITERIA FOR EVALUATION

Name of the Teacher : Rameesa Jahan ck

Name of the School : National college for teacher education

Date : 20/12/2023

Unit : Electromagnetic Induction

Submit : Self Induction, Inductance

Sl. No.	Criteria	Very Good	Good	Average	Satisfactory	Poor
1.	Lesson Planning	✓				
2.	Introducing a lesson		✓			
3.	Scope for Creativity	✓				
4.	Stimulus Variation	✓				
5.	Black board work	✓				
6.	Reinforcement	✓				
7.	Skill of Questioning		✓			
8.	Learning Materials	✓				
9.	Group Activity	✓				
10.	Class Management	✓				
11.	Communication	✓				
12.	Concluding the Lesson	✓				
13.	Content Mastery	✓				
14.	Teacher Personality	✓				
	Remarks	68				



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ERNAKULAM DIST., PIN 683 554

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PRACTICUM ON

EDU105:17 LEARNING TO FUNCTION AS PHYSICAL SCIENCE TEACHER

B.Ed. COURSE 20 - 20

NAME ANAMIKA N S

OPTIONAL SUBJECT PHYSICAL SCIENCE

REG. NO: 2332 40114389 YEAR 2023-2025

Certified that this is a Bonafide record of practical

Work done by the trainee during the year 2023- 20 25

Principal

Dr. N. SETRU MADHAVAN
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VENGOLA, PERUMBAVOOR - 683 554




Faculty in charge

Submitted for the Practical held on.....

INTRODUCTION

A concept map is a visual representation of knowledge that depicts relationships between various concepts or ideas. Typically used in educational settings, brainstorming sessions, or for organizing complex information, concept maps serve as graphical tools to illustrate how different pieces of information connect and interact with each other. Nodes on the map represent individual concepts, while lines or arrows indicate the relationships or links between them. This visual structure not only aids in understanding the hierarchical structure of information but also enhances memory retention and facilitates the process of learning by providing a comprehensive overview of a subject.

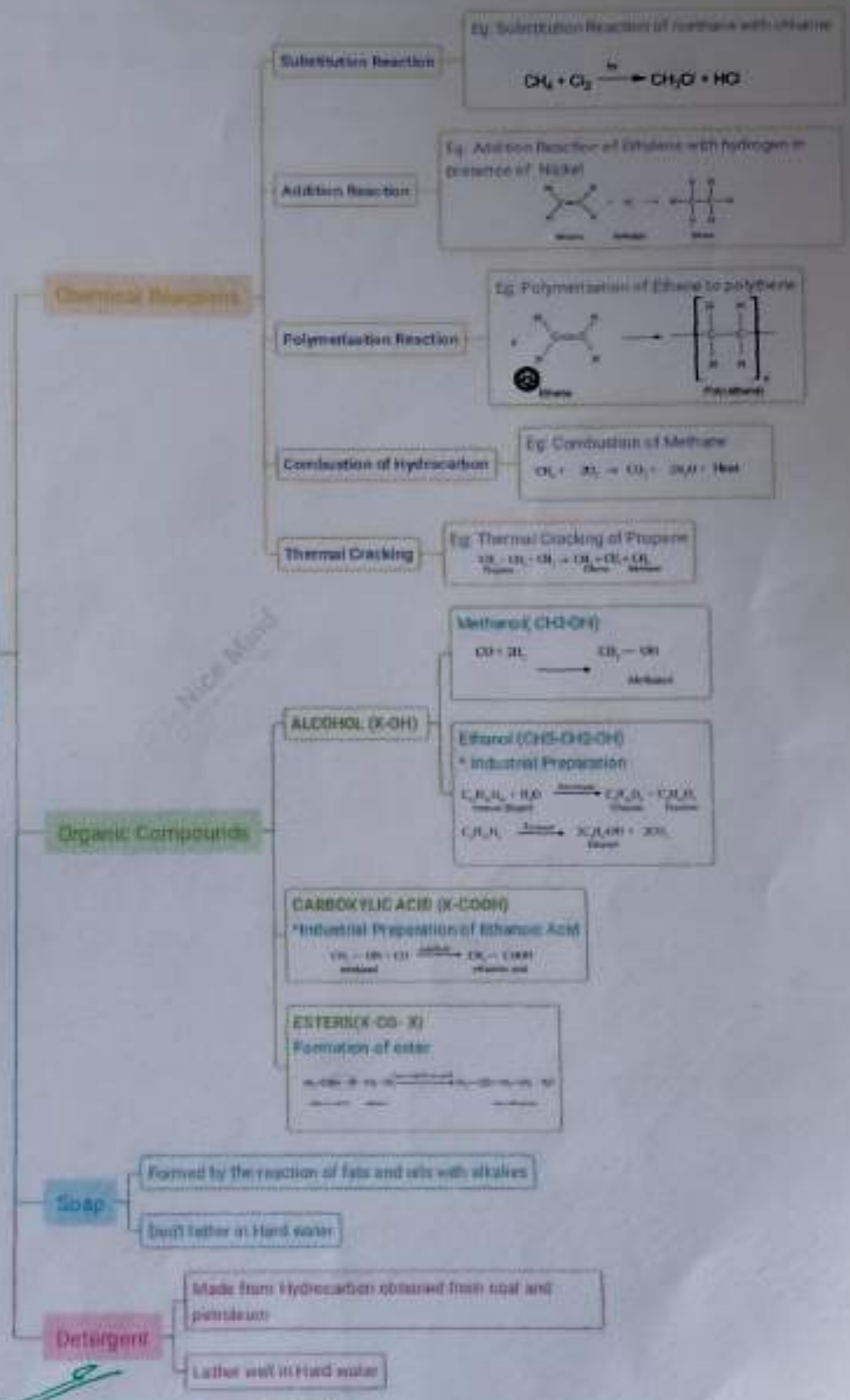
The creation of a concept map involves a thoughtful process of identifying key concepts, determining their relationships, and organizing them in a logical manner. As an effective tool for both teaching and learning, concept maps encourage critical thinking, stimulate creativity, and promote a deeper understanding of complex topics. Whether used in academic settings to outline a lesson plan or in business environments to strategize and present ideas, concept maps offer a versatile and powerful means of representing and organizing knowledge.


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CHEMICAL REACTIONS OF ORGANIC COMPOUNDS



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 IQBAL SQUARE, MEERUT
 VENGOLA, PERUR

REPORT

As part of B.Ed. curriculum, trainee prepared a concept map using the **Mind mapping** app. The concept map was about the chapter 7 '**Chemical Reactions of Organic Compounds**' of standard 10 Chemistry textbook. Concept maps are crucial in education as they visually organize and represent knowledge, fostering a deeper understanding of relationships between ideas. They promote active learning, helping students connect concepts and enhance critical thinking skills.


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RECORD ON

EDU 107.2, 206.2, 302.2, 404.2 (OPTIONAL)

B.Ed. COURSE 2023-2025

NAME Anamika Ns

OPTIONAL SUBJECT.....

REG NO: 233240114389 YEAR.....

*Certified that this is a Bonafide record of practical
work done by the trainee during the year 20 -20*


Principal




Faculty in charge

Submitted for the Practical Examination held on.....

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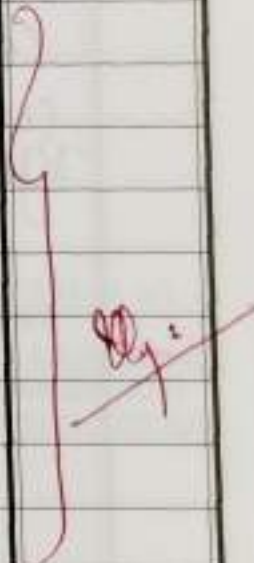
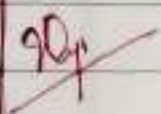
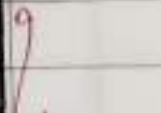
SL. NO.	TOPIC	DATE	PAGE NO.	REMARKS
	SEMESTER 1			
1	Micro teaching	1/11/2023	3-12	
2	Microteaching skills	2/11/2023	13-16	
	Skill of Stimulus variation	"		
	Skill of Questioning	"		
	Skill of Sel induction	"		
3	Microteaching lesson plans		17	
	Microteaching lesson plan on stimulus Variation	17/11/2023	20-21	
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	Discussion lesson plan-1		69-78	
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	Criticism lesson plan-1		169-178	<div style="border-left: 1px solid red; border-right: 1px solid red; border-bottom: 1px solid red; padding: 5px;"> } </div>
	Criticism lesson plan-2		180-192	
	Criticism lesson plan-3		193-203	
	Criticism lesson plan-4		204-303	
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DISCUSSION LESSON PLAN




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DISCUSSION LESSON PLAN - 1

Name of teacher: Jishna Shome and Bismita Bhaia

Standard: VIII

Name of School: National College for Teacher Education

Duration:

Name of Subject: Chemistry

Date:

Name of unit:

Topic: Electroplating

Content overview

Electroplating

Content Analysis

a) Terms: Electroplating, Electrolyte

b) Facts: * Rusting of iron can be prevented by electroplating.

* Electrolysis anode is the electrode where electricity is moved out

* Cathode is the electrode where electricity is given out

* Electrolysis can undergo chemical change



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concept:

- * Electrolysis - is the process in which a substance undergoes decomposition
- * Anode is the electrode where electricity moves on to
- * Cathode is the electrode where electricity moves onto.
- * Electrolytes are substances which undergo chemical change when electricity is passed through them.
- * Exothermic reactions are reactions which liberate energy.
- * Endothermic reactions are reactions which absorb energy.
- * Electrochemical reactions are those reactions which occur by the passage of an electric current or absorption of electric current.
- * Electrochemical cells are devices that can generate electrical energy from the chemical reactions occurring in it.



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Learning objectives

1) knowledge domain:- The pupil acquires knowledge and understanding of the above mentioned factors, concepts, terms, definitions, equations related to the topic.

Specific objectives:- The pupil

- * recognizes electrolytes
- * Recognizes anode and cathode

2) process Domain

The pupil develops process skill required to develop the knowledge and understanding of the above mentioned terms, facts, concepts.

Specific objectives:- The pupil

- * observes the colour change in CuSO_4
- * Analyse the chemical change
- * understands electrolysis.




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3. Creativity Domain

The pupil develops creative abilities related to the new knowledge

Specific objectives :- The pupil

- * Develops creative abilities related to chemical change
- * Develops unconventional mind

4. Attitudinal Domain

The pupil develops scientific attitude and form positive attitude towards science.

Specific objectives :- The pupil

- * Get positive attitude towards science and science teacher.
- * Develops cooperation between students.
- * Learning by doing can be employed.

5. Application Domain

The pupil applies the required knowledge and skills.

Specific objectives :- The pupil

- * Applies learning strategy's adapting for vocational purpose



* use electroplating for educational purpose

Learning Strategies

Lecturing, demonstration, group discussion, experiment, observation.

Subjective Realities

Pre-conception

Pupil have heard about electroplating in gold ornaments

Learning Resources

Teaching aids

Blackboard, chart

Chemicals

CuSO_4 solution

Apparatus

Beaker, Rods, Wires, Battery, Switch

Precautions

Take care while using chemicals and electricity



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CLASSROOM TRANSACTIONS

Process/Activity

Response

Sensitisation:-

Teacher enters the class with a pleasant smile and wishes the students and asks students you all have observed the wood burning. what are the changes happening behind it? Have you thought the reason behind it? So today we are going to study about different chemical changes.

Activity 1

Teacher asks the pupil to classify changes in the nature into physical change and chemical change.

Discussion points

1. What are the changes happening around us?
2. List and classify them into physical and chemical changes?

consolidation of data

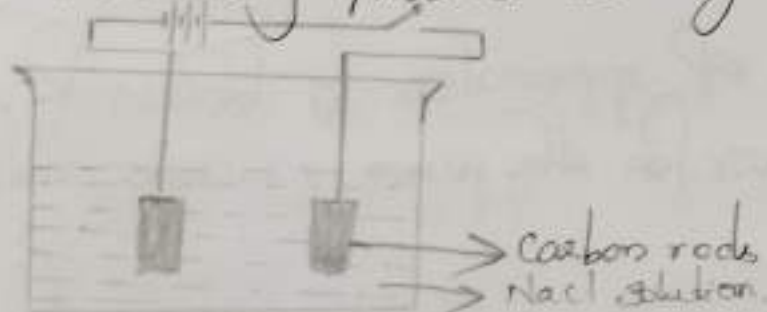
1) water changes into water vapour
Rusting of iron.

2)

Physical change	chemical change
<ul style="list-style-type: none">• water changes into water vapour.• Melting of wax	<ul style="list-style-type: none">• Rusting of iron• Burning wood• Explosion of crackers

Activity - 2

Teacher demonstrates an experiment to study electrolysis.
Take CuSO_4 solution in a beaker with the help of carbon rods, set the electricity passed through the solution.



(Signature)

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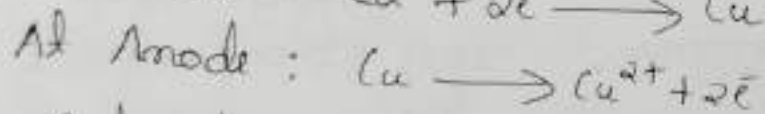
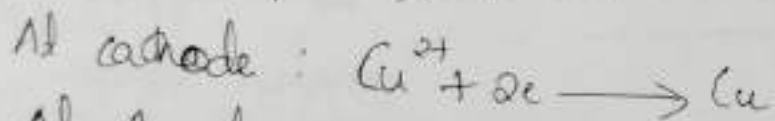
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Discussion points

- 1) what do you observe? what type of reaction?
- 2) which form of energy is responsible for the change you observe?
- 3) what is your inference?

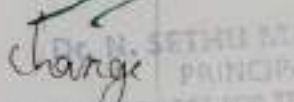
consolidation of Ideas

The colour change occurred in CuSO_4 solution is Endothermic reaction.
The copper sulphate is ionised in aqueous solution.



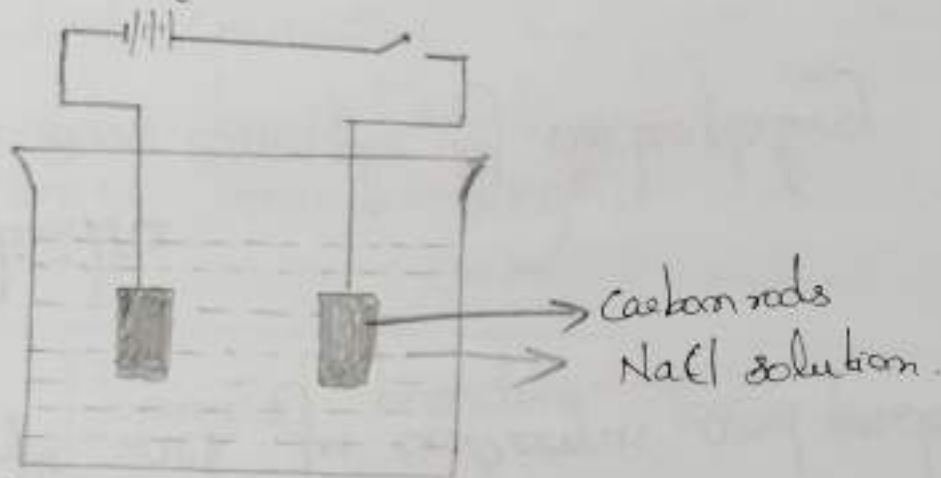
2) Electrical energy.

3) CuSO_4 decomposed with electrical energy and undergo colour change


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Activity - 3

Teacher introduces example for electrolysis. Take NaCl solution in a beaker add to it a few drops of phenolphthalein with the help of 2 carbon rods, let the electricity pass through the solution.



Discussion points

- 1) What do you observe?
- 2) Write down your inference?

consolidation of ideas

- 1) colour change occurs
 - 2) NaCl decomposes into Na & Cl
- $$2\text{NaCl} \rightarrow \text{Na}_2 + \text{Cl}_2$$

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Review Questions

1) A student tries to plate Iron with copper. draw its arrangement by selecting the required materials from the list given below.

Silver nitrate, Iron nails, CuSO_4 , Silver rod, copper rod, Silver plate, Iron Sulphate, battery, wire, beaker.

2. Give an example each for exothermic and endothermic reaction.

Extended activities

1) write down some examples of electroplating.

20/10/2024



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KEY INDICATOR

CRITERION 2-Teaching-learning and Evaluation

2.4 COMPETENCY AND SKILL DEVELOPMENT

PREPARATORY SCHOOL ACTIVITIES

METRIC 2.4.2.D

Attendance sheets of the workshops/activities with seal and signature of the Principal

Affidavit

I do hereby certify that, all pages in this document are duly authenticated by me, under my privilege as the Head of the institution of National College for Teacher Education, Vengola, Ernakulum, Kerala

Tel : 0484 2522583, 0484 2525603


E-mail : nationalcollege09@gmail.com, Website : www.nationalcollege.edu.in


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Year	Sl. No.	Programme for teaching staff			
		Title	Date/s	Resource Person	No. of participants
2023-2024	1	ORIENTATION FOR TEACHERS	2-Aug-23	Dr. N Sethumadhavan	8
	2	TEACHERS IN NEP 2020	23-Aug-23	Dr. Vijayan k	9
	3	MY EXPERIENCE AS A TEACHER	5-Sep-23	Dr. M N Krishnankutty nambeeshan	9
	4	DRAFTING A RESEARCH PAPER WITH AN IMPRINT	8-Sep-23	Dr. N K Arjunan	15
	5	PROSPECTS AND CHALLENGES OF IMPLEMENTING ITEP	20-Sep-23	Dr. Shakila T shamsu	12
	6	RESEARCH METHODS	7-Oct-23	Dr. Rajeswary K V	8
	7	GAMIFICATION IN LEARNING SCIENCE	17-Oct-23	sreeja v	7
	8	TECHNO PEDAGOGIC LEARNING	8-Nov-23	Jayakrishnan	6
	9	CLASS ON SPSS PACKAGE	17-Nov-23	Dr. N K Arjunan	14
	10	CONSTRUCTIVISM	19-Jan-24	Saranya devi	5
	11	IMPACT OF ONLINE EDUCATION AND CYBER ADDICTION IN CHILDREN	13-Feb-24	Anjali r	8

Workshop for students

Sl.No	Name	Resource Person	Date	No. of participants
1	Workshop on Teaching Aids	Mr. Raman Master	08/08/2023	99
2	Workshop on e-content development	Ms. Sreeja V		11


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KEY INDICATOR

CRITERION 2-Teaching-learning and Evaluation

2.4 COMPETENCY AND SKILL DEVELOPMENT

PREPARATORY SCHOOL ACTIVITIES

METRIC 2.4.2.E

Any other relevant information

Affidavit

I do hereby certify that, all pages in this document are duly authenticated by me, under my privilege as the Head of the institution of National College for Teacher Education, Vengola, Ernakulam, Kerala

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E-mail : nationalcollege@rediffmail.com, Website : www.nationalcollege.edu.in

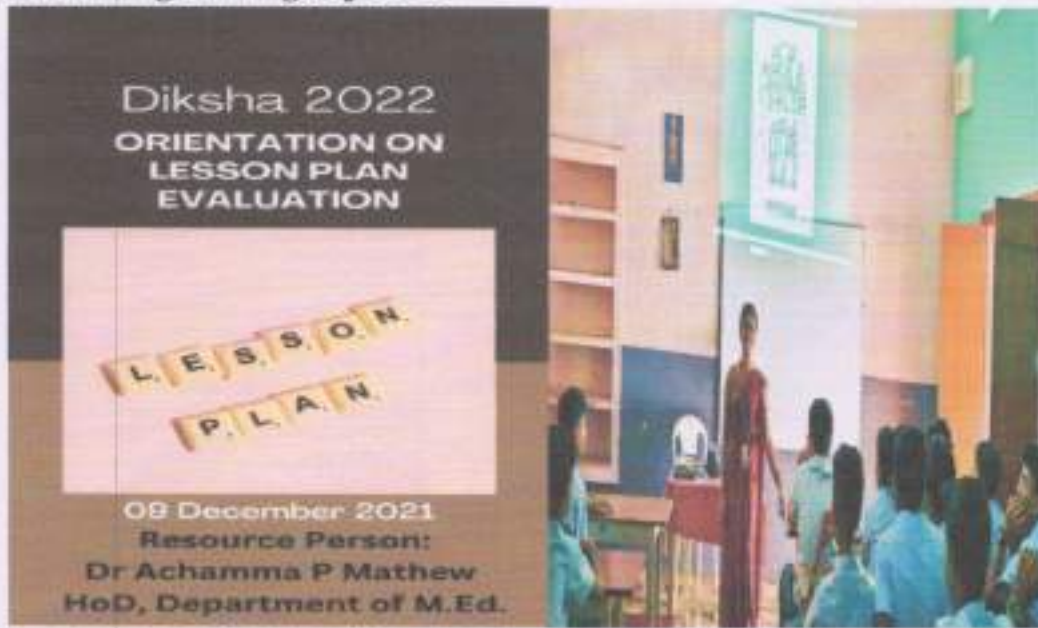
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Criterion 2.4.2 PHOTOGRAPHIC EVIDENCES

1. Formulating Learning Objectives



2. Content Mapping



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3. Individual Education Plan

The screenshot shows the Classroom app interface for a course named 'PL FIRST SEM'. The left sidebar contains navigation options: Home, Calendar, Teaching, To do list, and a list of semesters (PL 2020-21 to PL FOURTH SEM). The 'PL FIRST SEM' semester is currently selected and highlighted. The main content area is titled 'Individual Education Plan' and shows a list of students with their names and profile pictures. The 'Microteaching video' section on the right displays a progress bar with 9 videos available and 0 videos watched. Below this, there are two video thumbnails for 'Microteaching video' and 'Microteaching video'.

4. Identifying Varied Student Abilities

The screenshot shows the Classroom app interface for a course named 'PL FIRST SEM'. The left sidebar contains navigation options: Home, Calendar, Teaching, To do list, and a list of semesters (PL 2020-21 to PL FOURTH SEM). The 'PL FIRST SEM' semester is currently selected and highlighted. The main content area is titled 'Identifying Varied Student Abilities' and shows a list of students with their names and profile pictures. The 'Digital album' section on the right displays a progress bar with 0 photos available, 0 photos shared, and 9 photos viewed. Below this, there are two photo thumbnails for 'Digital album' and 'Digital album'.

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5. Dealing with student diversity in classroom

13 FEBRUARY 2024



IMPACT OF ONLINE EDUCATION AND CYBER ADDICTION IN CHILDREN



Resource Person:
Anjaly R

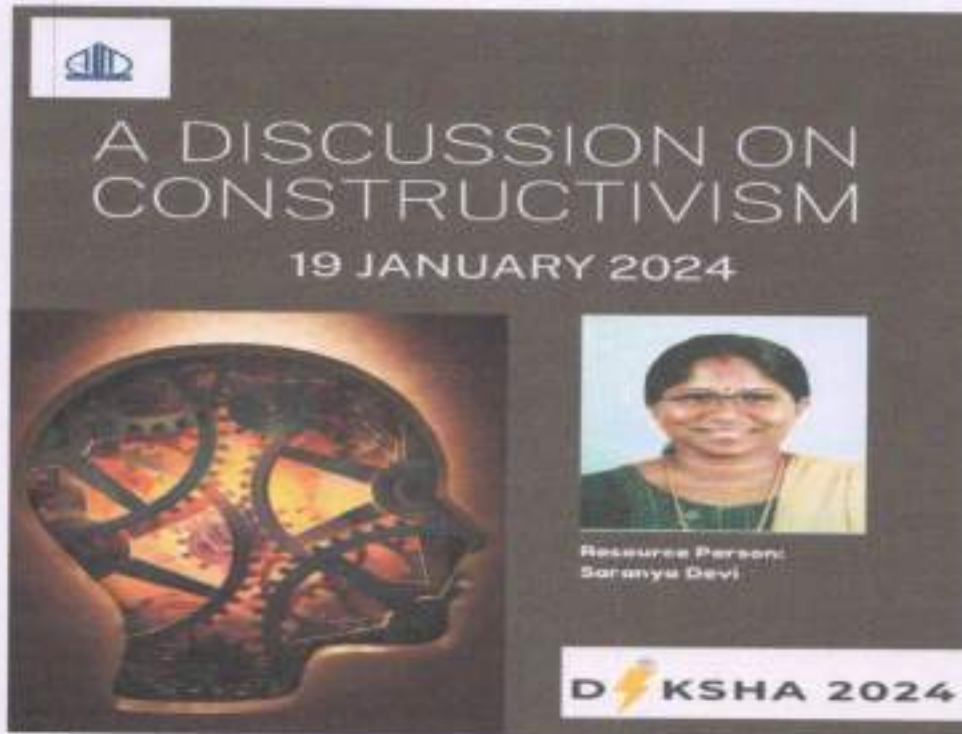



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6. Visualising Differential learning Activities






**A DISCUSSION ON
CONSTRUCTIVISM**

19 JANUARY 2024

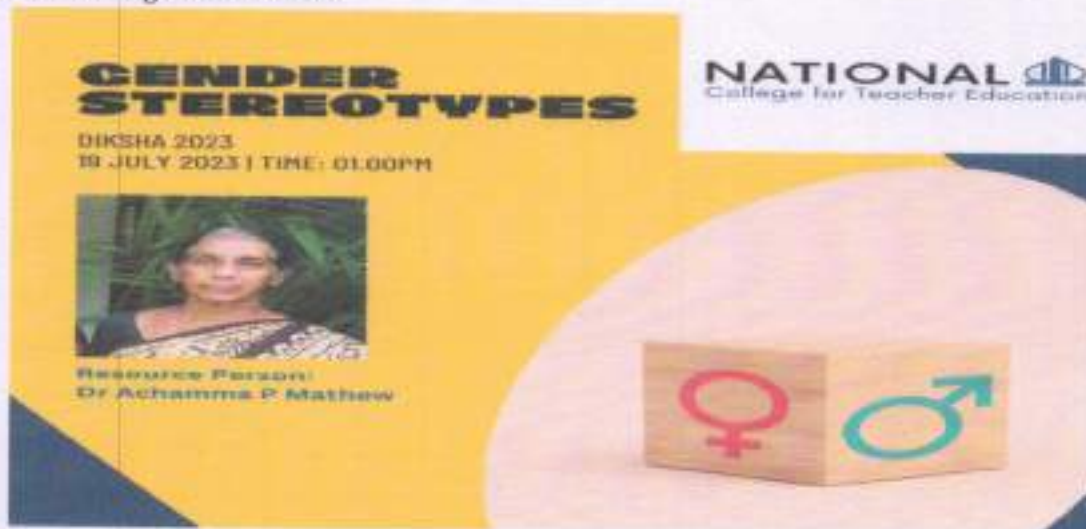





Resource Person:
Saranya Devi

D KSHA 2024


7. Addressing Inclusiveness




**GENDER
STEREOTYPES**

NATIONAL 
College for Teacher Education

DIKSHA 2023
19 JULY 2023 | TIME: 01.00PM



Resource Person:
Dr. Achamma P Mathew




Dr. N. SETHU MADHAVAN
PRINCIPAL
NATIONAL COLLEGE FOR TEACHER EDUCATION
TOBAL SQUARE, BELURATHUR
VILUPPATA, PERUMBAVOOR




8. Assessing Student Learning

GOOGLE FORMS FOR STUDENT ASSESSMENT
DIKSHA 2021- NO.5
23 OCTOBER | 2020
TIME: 1:30 PM



JAYAKRISHNAN PV
ASSISTANT PROFESSOR IN EDUCATION

NATIONAL 
College for Teacher Education

LINK WILL BE SHARED 30 MTS BEFORE THE SCHEDULED TIME

9. Mobilising Varied learning resources

English Language Development: Theory and Praxis
Diksha Series: 2023 | 23 August 2020



Class by
Dr. Smitha Kuruppan

soft skills



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10. Evolving ICT Based Learning Situations



11. Exposure to Braille/Indian Language/Community Engagement



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**NATIONAL COLLEGE FOR TEACHER
EDUCATION, VENGOLA**



VALUE ADDED COURSE

COURSE NAME: COMMUNICATIVE ENGLISH

COURSE CODE: NCVAC 1205

DURATION: 30 Credit Hours



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- Creative and formal writing practices

Module 4: Interpersonal and Professional Communication (4 credits)

- Strategies for effective interpersonal communication
- Professional communication skills as a teacher
- Classroom Interaction and Management

Module 5: Advanced Communication Practices (5 credits)

- Advanced vocabulary and idiomatic expressions
- Developing a personal communication strategy
- Using English in Diverse Contexts

Module 6: Practical Application and Evaluation (5 credits)

- Group discussions and collaborative activities
- Peer and instructor feedback
- Final assessment through written and oral examinations

Teaching and Assessment Methods:

- Lectures and interactive sessions
- Group discussions and debates
- Individual and group assignments
- Practical presentations and role-plays
- Written examinations and viva voce
- Continuous assessment through participation and projects

Reference

Mohan, K. Speaking English Effectively, Macmillan

Thakkar, P. The Ultimate Guide to IELTS Speaking, M K Book

Sreevalsan, M. C. Spoken English A hands on guide to English, Conversation practice
Vikas Publishing

Shuuja, A. A course of spoken English, A P H Publishing




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