

EMMANUEL COLLEGE OF EDUCATION-245

Tamaram, Makavarapalem (Mdl), Visakhapatnam (Dt)-531113.

B.Ed. Programme (Academic Year -2015-2017)

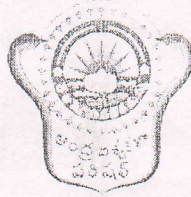
Semester - ~~I~~ / ~~II~~ / ~~III~~ / ~~IV~~

Course : Physical Science

Name : M. Sivaprasad

Roll No : 17 Regd. No : 215124502002

Pedagogy : Mathematics / physics.



ANDHRA UNIVERSITY
VISAKHAPATNAM

CERTIFICATE

This is to certify that Mr./Mrs/Kumari M. Siva Prasad student of
Emmanuel College of Education, has completed MICRO TEACHING in Emmanuel
College at College and submitted the same as **Record** of the Course
PHYSICS. as a part of his / her ~~I~~ II / ~~III~~ / ~~IV~~ Semester in B.Ed.,
Programme.

ROLL.NO. 17

REG.NO. 2151245020002

Signature of the Lecturer

Signature of the Principal

Initial of the member of

PRINCIPAL
Emmanuel College of Education
Tamaram (VI), Makavarapalem (Md)
Visakhapatnam, Pin-531 113

Moderation Board

College Seal



INDEX

S.NO	CONTENT	P. NO	Remarks
1)	Micro teaching		
2)	micro teaching - 1 (Introducing Skill)		
3)	micro teaching - 2 (Explaining Skill)		
4)	micro teaching - 3 (Questioning Skill)		
5)	micro teaching - 4 (Blackboard Skill)		
6)	micro teaching - 5 (Demonstration Skill)		

MICRO

TEACHING

RECORD

Micro teaching - Introduction:

- * A teacher makes use of a number of methods and techniques to bring about effective learning
- * The techniques include motivating the students, explaining questions, writing on the blackboard using teaching aids and so on
- * The teacher could also make use of non verbal behaviours such as smiling, nodding and gesturing
- * These groups of activities are called skills
- * Teaching skill is group of teaching acts / behaviour intended to facilitate pupils learning directly or indirectly
- * If the teacher trainees are conscious and aware of teaching skill, they will be able to concentrate on each of these skills and gain mastery over them
- * Microteaching introduces the teacher trainee to a wide range of teaching skill and allows the teacher trainee to practise each skill one at a time until she becomes proficient in the skill

Micro teaching - Definitions and meaning:

Micro teaching has been defined in different ways

- * Allen D.W (1966) defined micro teaching "as a scaled down teaching encounter in class size and class time"
- * Allen eve (1968) defined micro teaching "as a system of controlled practice, that makes it possible to concentrate on specific teaching behaviour and to practise teaching under controlled conditions."
- * Clift and others (1976) described microteaching "as a teacher training procedure which reduce the teaching situation to a simpler and more controlled encounter achieved by limiting the practice of teaching to a specific skill and reducing teaching time and class size"
- * Buch. B.E (1968) defined micro teaching "as a teacher education technique, which allows teachers to apply clearly defined teaching skills to carefully prepared lessons in planned series of 5 to 10 min. It encounter with a small group of real students, often with an opportunity to observe the results on videotape"

* Passi B. K "stresses that the most important point in microteaching is that teaching is practised in terms of definable, observable, measurable and controllable teaching skills.

* Allen and Ryan (1969) while micro teaching specified the

- There is emphasis on training for the accomplishment of specific tasks
- There is increased control of practice

Micro teaching is a teacher training technique where the complexities of the normal classroom teaching are reduced by

- practising one teaching skill at a time
- limiting the content to a single concept
- Reducing the class size to 5 to 7
- Reducing the duration of the lesson to 5 to 7 min.

characteristics of micro teaching:

The characteristics of microteaching can be summarised as follows.

- * micro teaching is a teacher training technique and not a teaching method
- * micro teaching is real teaching, through the teaching situation is simulated
In microteaching the teacher trainee practises one specific teaching skill at a time, till she attains mastery over the skill.
- * Microteaching operates on a predecided model plan, teach, Feed back, Re-plan, Re-teach, Re-feedback Re plan etc.
- * microteaching allows for increased control of practice by providing feed back to the teacher-trainee
microteaching is a cyclic process. The pre-decided model is repeated till the trainee achieves the expected level of mastery.
- * microteaching is not a substitute, but a supplement to the teacher-training programme

micro teaching cycle:-

- The practice phase is the most important phase of the micro teaching programme
- In This phase The Teacher trainee chooses a specific skill, prepares a micro-lesson plan and teaches a small group of students for a duration of 5-7 min

planning

Re feed back

Re teach

Teaching

Feed back

Re plan

micro teaching cycle

- ① Planning: This involves selection of the skill to be practised, awareness of the components of the skill, selection of a suitable concept and the writing of a micro lesson plan
- ② Teaching: The trainee teaches the lesson in the micro teaching setting. NCERT has suggested the following setting for micro teaching
- ③ Feedback: The observers analyse the performance and discuss it with the teacher trainee on the basis of their ratings using the appraisal guide
- ④ Replan: In the light of the feed back received from the supervisor and peer observers the teacher trainee replans the micro lessons by writing another micro-lesson plan or modifying the existing one
- ⑤ Reteach: The teacher-trainee reteaches the revised lesson or another, but comparable group of students
- ⑥ Refeedback: The supervisor assesses the lesson once again and provides the feedback to the trainee

Phases of microteaching:

Clift (1976) described the following as the phases of microteaching

- Knowledge acquisition phase or pre-active phase
- Skill acquisition phase or Interactive phase
- Transfer phase or post-active phase

Phase-I : pre-active phase :

- orientation to microteaching
- Discussion of teaching skills with their components and teaching behaviours
- presentations of model demonstration lesson by the teacher educator
- observation of the model lesson and criticism by the teacher trainees

Phase-II - Interactive phase :

- preparation of micro-lesson plan for the selected teaching skill
- creating microteaching setting
- practice of teaching skill
- Feed back
- Re-planning

- Re-teaching
- Repetition of the microteaching cycle

Phase - III : post-active phase :-

The main objective of this phase is to enable the teacher-trainee to integrate the teaching skill in real or normal classroom situation. Integration of teaching skills may be defined as the process of selection organisation and utilisation of different teaching skills to form an effective pattern for realising the specified instructional objectives in a teaching learning situation.

Integration is done in two stages

- Integration of teaching skills in parts
- Integration of teaching skills as a whole

Uses of micro teaching:

Microteaching technique enhances the effectiveness of the teacher training programmes in the following ways

- * Microteaching helps in reducing the complexities of the normal classroom teaching.
- * This helps the teacher trainees gain more confidence in real teaching
- * Microteaching creates among the teacher-trainees an awareness of the various skills of which teaching is composed to
- * Microteaching helps in systematic and objective analysis of the pattern of classroom communication through specific observation schedule
- * Microteaching simulates the classroom scene and gives the teacher trainee experience of real teaching
- * Feedback enables the teacher-trainee to consciously concentrate on specific behaviour modification
- * As microteaching focuses on the modification of behaviour and improvement of interaction process

- * Microteaching provides an effective technique of learning the art of teaching as the teacher-nee concentrates on practising a specific and well defined teaching skill consisting of a set of teacher behaviours that are observable, controllable and measurable
- * In microteaching the complex task of teaching is looked upon as a set of simpler skills comprising specific classroom behaviour
- * This helps the teacher-trainees in better understanding of the meaning and concept of the term teaching.
- * Microteaching enables a student teacher to incorporate more easily a behaviourally defined teaching skill into his teaching than the vague non-behaviourally statements, like drawing pupils' attention, developing rapport with pupils etc

Microteaching skills:

- Microteaching technique rests upon the analytical approach to teaching
- Analytical approach assumes that the complex task of teaching can be analysed into limited but well defined components 'teaching skills'. Each of these teaching skills can be taught, practised, evaluated, predicted, controlled and understood.
- Teaching skills have defined differently by different authors
- Gage (1968) defined the teaching skills "as specific instructional activities and procedures that a teacher may use in his classroom". According to McIntyre and White "technical skill is a set of related teaching behaviours which is specified types of classroom interaction situations tend to facilitate the achievement of specific type of objectives"
- All these definitions specify that a teaching skill is group of teaching acts / behaviours intended to facilitate pupils learning

activity directly or indirectly.

characteristics of teaching skills

* Teaching skills have three basic components perception, cognition and action

* Teaching skills have three basic dimensions

(i) non-verbal behaviour

(ii) openness and

(iii) Nature of moves in teaching to which the skill belongs

types of teaching skill:

→ Attempts have been made to list teaching skills that would be developed among the student teachers

→ A large no' of skills have been identified

→ However, there is no uniformity in the no' and categories of teaching skills

Fourteen teaching skills have been listed in Stanford University where as Singh L.C (1979) identified twenty two general teaching skill. Later on Menon et-al (1983) have suggested a list of seventy four skills.

The important skills are:

1. Writing Instructional objectives
2. Introducing (motivations)
3. Explanation
4. Structuring classroom questioning
5. Probing questioning
6. Stimulus variation
7. Illustrating with examples
8. Reinforcement
9. Using black board
10. Lecturing
11. Closure

MICRO TEACHING SKILLS

INTRODUCING

SKILL

Preliminary Information:

Name of the student Teacher : M. Swapnasud

class : 8th class

subject : physical science

unit : sound

sub unit : sound

topic : sound

duration : 5-10 min

date :

name of the skill : introducing skill

no. of students : 5-10 members

name of supervisor : Pooja

verb / ex teach : teach

Preliminary Information :-

Name of the student teacher : M. Sivaprasad

class : 8th class

subject : physical science

unit : Sound

sub unit : sound

topic : sound

duration : 5-10 min

Date

name of the skill

no. of students

name of supervisor

teach / re teach

Signature of student teacher

Signature of supervisor

Place and date

S.No	Teacher's activity	pupils activity	black board work Teaching learning material
1.	Good morning children	Good morning Teacher	
2.	what is your name	T. Akshitha	
3.	How many festivals you have celebrated	I have celebrated many festivals	
4.	Name some festival	Sankranti, Diwali Christmas, Vinayaka - Chavithi	vinayaka chavithi diwali, sankranti Christmas
5.	During the festival of diwali what will you do?	Lightening crackers	lightening crackers
6.	what do you observe while lightening	we observe different noise different colour ful lights	Different noise colourful lights

SNO	Teacher's activity	pupils activity	Black board work/ Teaching learning material
7.	Give any examples for noise	music, birds, cries and chirping of birds & animals; sounds of auto's, vehicles,	music, birds chirps and cries, sounds of auto's and vehicles
8.	what we call this noise in physical science	Sound	
<u>Announcement of the topic:-</u> Today we are going to discuss about Sound 			

EXPLAINING SKILL

Preliminary Information :-

Name of the student teacher

class

subject

unit

subunit

topic

duration

Date

Name of the skill

No' of students

Name of the supervisor

Tech / Reteach

: M. Sivaprasad
: 7th class

: Physical science

: Electricity

: Current and its properties

: Electric bulb

: 5-10 min

: Explaining skill

: 5-10 members

S.NO	Teacher's activity	Pupils activity	Black board work Teaching learning material
1.	Today we are going to discuss about the electric bulb		Electric bulb
2.	Source of light: An object that can give light is called a source of light	Student observe	Source of light An object that can give light is called a source of light
3.	Examples of source of light Sun, moon, stars	Student observe	Ex: Sun, moon, stars
4.	Electric bulb: It gives out light when electricity is sent in to it. It is called electric bulb	Student observe	

5.	Electric bulb is defined invented by Thomas alwa Edison an american scientist	Student observe	Thomas alwa Edison an american scientist
6.	There is a thin wire made of tungsten in a bulb. This is called a filament.	Student observe	Tungsten
7.	Two ends of this filament are attached to two copper wires whose ends are fixed to two terminals at the top of the bulb	Student observe	
8.	The air is removed and insert gases like nitrogen or helium is filled into bulb and sealed	Student observe	Nitrogen or Helium

5.	Electric bulb is defined invented by Thomas alva Edison an american scientist	student observe	Thomas alva Edison an american scientist
6.	There is a thin wire made of tungsten in a bulb. This is called a filament.	student observe	Tungsten
7.	Two ends of this filament are attached to two copper wires whose ends are fixed to two terminals at the top of the bulb	student observe	
8.	The air is removed and inert gases like nitrogen or helium is filled into bulb and sealed	student observe	Nitrogen or Helium

S.No	Teacher's activity	pupils activity	Black board work Teaching learning material
9.	oxygen is react with air in the bulb it will burn out the filament it will last in few hours	student observe	
10.	one lumen = 12-576 candle power one watt = 700 lumens	student improve	one lumen = 12-576 candle power one watt = 700 lumens

Announcement of the topic:-

Today we discuss

about ~~electric~~ bulb

e

QUESTIONING SKILL

Preliminary Information:

Name of the student teacher : M. Sivaprasad

class : 7th class

subject : physical science

unit : Electricity

sub unit : current and its properties

topic : Electric bulb

Duration : 5-10 min

Date :

Name of the skill

No. of students : 5-10 members

Teach / Reteach

042

11/11/2019

Physical science
Electricity

S.NO	Teacher's activity	Pupil's activity	Black board work/ Teaching learning material
1.	What is your name	Gi. Kalyani	
2.	What is meant by source of light	<u>Source of light</u> : An object that can give light is called a source of light	
3.	Give any two examples of source of light	Sun, moon, stars	Sun, moon, stars
4.	What is meant by artificial source of light	<u>Artificial source of light</u> : Apart from natural source of light there are some man-made are called artificial source of light	Torch, electric bulb
5.	Give an example of artificial light	Torch, electric bulb	

6. What is meant by electric bulb?
Electric bulb: it gives out light when electricity is sent into it, it is called the electric bulb
7. What is meant by filament?
 There is a thin wire made of tungsten in a bulb. This is called filament
8. Which gases are filled into the bulb?
 Inert gases like nitrogen or helium
9. Who invented electric bulb?
 Thomas Edison was an American scientist
10. Which metal is used to prepare the filament?
 Tungsten

Tungsten

Tungsten

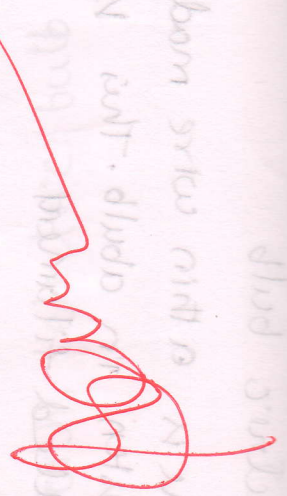
Tungsten

S.NO	Teacher's activity	Pupils activity	Black board work/ Teaching learning material
11.	one lumen is known how much candle power	one lumen = 12.56 candle power	one lumen = 12.56 candlepower
12.	one watt ?	1 watt = 700 lumens	

Announcement of the topic:

Today we discuss about the topic of

"Electric bulb"



STUDENT BOARD SKILL

Preliminary Information -

Name of the student teacher :

class :

subject :

unit :

sub-unit :

topic :

duration :

date :

number of the class :

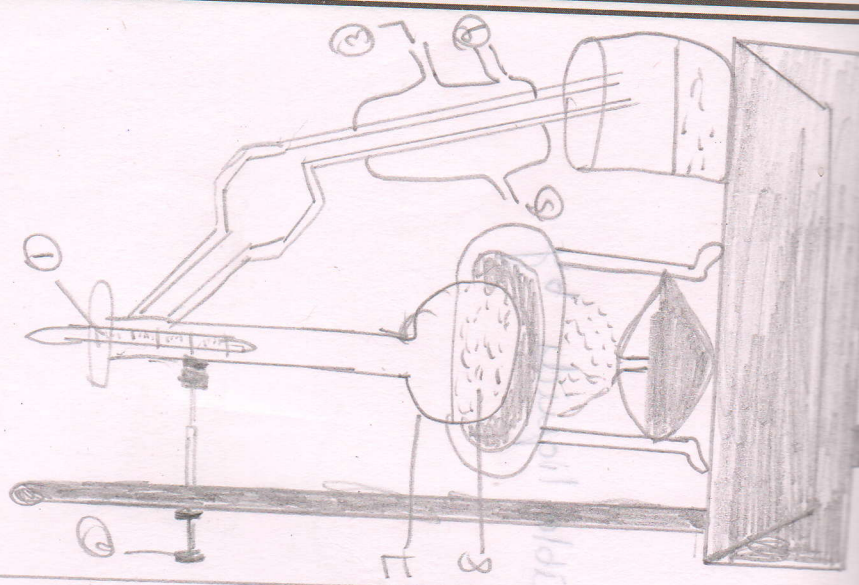
no. of student :

Name of the supervisor :

teach / re-teach :

Preliminary Information:-

Name of the student teacher : M. Sivaprasad
 class : 9th class
 subject : physical science
 unit : Is matter pure
 sub unit : Is matter pure
 topic : separation of two miscible liquids by distillation
 duration : 5-10 min
 Date :
 Name of the skill : black board skill
 no' of student : 5-10 members
 Name of the supervisor :
 teach / Reteach :

S.NO	Teacher's activity	pupils activity	Black board work / Teaching learning material
1.	<u>separation of two miscible liquids by distillation</u> :		
2.	Acetone and water are also miscible. Take a mixture of acetone and water in a distillation flask	student observe	
3.	Fit it with a thermometer and clamp it to stand. attach the condenser to the flask and on the other side of the condenser keep a beaker to collect distillate	student observe	
4.	Heat the mixture slowly keeping a close watch on the thermometer		
5.	The acetone vaporizes and condenses in the condenser	student observe	

6.	Acetone can be collected from the condenser outlet	student observe	① Thermometer ② clamp ③ water outlet ④ water condenser ⑤ cold water in ⑥ Acetone ⑦ Distillation flask ⑧ mixture of acetone and water
7.	water remains in the distillation flask		
8.	Distillation is used in the separation of components of a mixture containing two miscible liquids	student observe	
a.	If the difference in boiling points is greater than 25°C a simple distillation is used	student observe	If the difference in boiling points is greater than 25°C a simple distillation is used

DEMONSTRATION SKILL

Preliminary information:

Name of the student teacher: M-sivaprasad

class: 8 class

subject: physical science

unit: Nuclear reaction

subunit: Nuclear reaction

topic: Nuclear reaction

Duration: 5-10 min

Date:

Name of the skill: Demonstration skill

No of students:

: 5-10 members

Name of the supervisor:

: Sudhakar

Teach / Reteach:

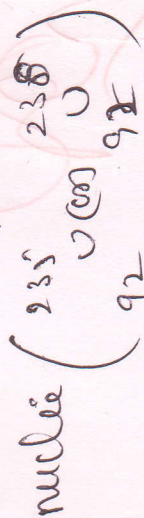
: Teach

S.NO	Teacher's activity	Pupils activity	Blackboard work Teaching learning material
1.	nuclear reactor:- A reactor in a nuclear power station the same purpose as the fluence in a steam genera for it act as in fence source of heat is called nuclear mean	student observe	1. Fuel rods 2. Moderator (water) 3. Control rods 235 238 235 238 235 238
2.	Nuclear reactor consists of three parts	student observe	
3.	They are 1. fuel rods 2. moderator 3. Control rods	student observe	

4. Fuel rods

The fuel element

contains the fissionable



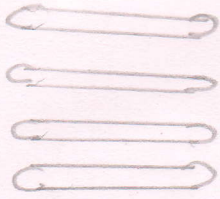
usually in the shape of thin rods about 1 cm diameter

5. Moderators : (water)

The material that slows down the neutrons in the nuclear reactor is called a moderator

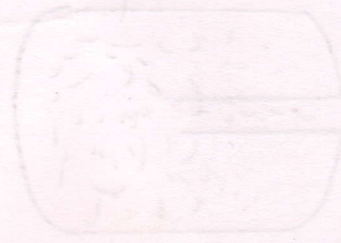
6. Control rods :

The control rods are made of elements



fuel rods

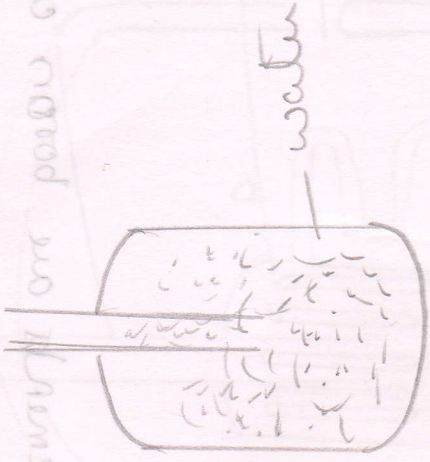
student
observable



student
observable

elements are boron and

Cadmium

SNO	Teacher's activity	pupils activity	Black board work Teaching learning materials
	Such as boron or cadmium whenever these rods are inserted into the core they observe and prevent excess fissions	student observe	

Announcement & topic:-

Today we discussed about Nuclear reactor and its parts

[Signature]