UNIT – 3
APPROACHES OF TEACHING

3.1 Introduction

Teaching occupies the central core of your life as a teacher. The teaching includes instruction in classroom tutorials, laboratory, workshops, etc. Where teaching is not just an activity to transfer the education to the student but it involves modification in the behavior of the student. In Teaching – Learning process Planning plays the important role. While doing a proper planning in teaching the class environment got relaxed, teacher enjoys the teaching because the atmosphere as well the situations is properly arranged. By doing an intelligent planning a teacher avoids frustrations. Classroom transactions are also got smooth by using the strategies in a proper manner.

3.2 Approaches of Lesson Planning

A Lesson Plan as a teaching outline of the important points of a lesson arranged in the order in which they are to be presented; it may include objectives, questions to be asked, references to materials, evaluation, assignments, etc. Lesson planning is a product of short term or micro level planning involving:

- Identification of definite objectives
- Selection of appropriate content and activities
- Selection of procedures and methods for presentation of the content
- Selection of evaluation exercises and
- Selection of follow up activities etc.
- Generally various approaches are used to make a lesson plan.

A brief description is provided:

1. **Herbartian approach:**

   John Fredrik Herbat, a German philosopher and educationist (1776 -1841) advocated pedagogy – based lesson planning.It is based on apperceptive mass theory of learning. All the knowledge and information are to be given from outside by the teacher because the student is considered similar to a clean slate. For the students, if an old knowledge makes a base for new knowledge (his previous knowledge or experiences), it may be acquired easily and retained for a longer period. Herbart has given five steps: Introduction, Presentation, Organization, Comparison and evaluation. The main focus is on content presentation.

2. **Unit Approach of Morrison:**

It is based on unit transaction and planning. The Morrison's lesson plan of teaching is cyclic; Morrison has given five steps for his 'cyclephase' of teaching: Exploration, Presentation, Assimilation, Organization, and Recitation.

Exploration

↓

Presentation

↓

Assimilation → Organisation → Recitation
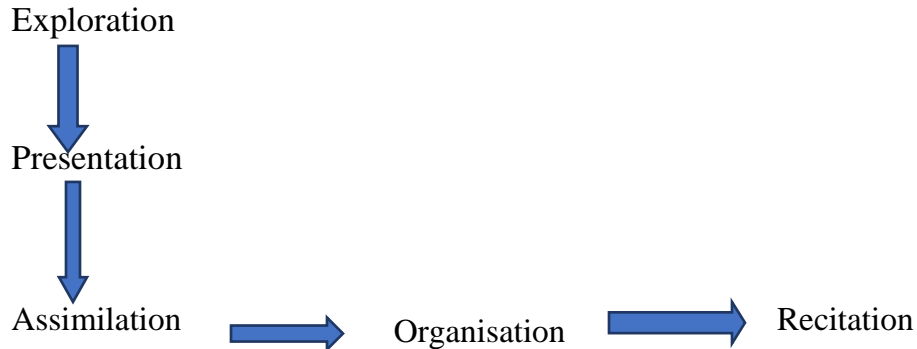
Exploration:

The teacher explores various methods and possibilities to motivate the students, to arouse the curiosity and to maintain the interest of the students. This is the preparation step where the teacher could plan for the success of the lesson.

Presentation:

This step is basically common to all the approaches of lesson planning which involves the selection and use of different methods to present the subject matter to the students.

Assimilation:

The third step involves intensive learning, and deep understanding of the subject matter that facilitate effective communication of the concepts.

Organization:

This is important step in unit approach to lesson planning as it determines the extent to which students are able to reproduce the material of the unit in writing without may externally help. The ability of the teacher to enable his students to reproduce the knowledge reflects the efficiency of the teacher.

Recitation:

Recitation in unit lesson planning means that an individual student is able to reproduce the same text orally on the completion of the lesson by a teacher.

3.3 Steps in writing Lesson Plan:

Major steps involved in a lesson planning are as follows:

General Entries: Subject, Class, date, period, duration of the period, Name of the school and topic of the lesson.

General Objectives

Specific Objectives and expected change in behavior

Teaching / Audio – visual aids

Method and Techniques of Teaching

Previous knowledge of the child

Introduction – Testing Previous knowledge and experiences related with the new knowledge or topic of the lesson.

Statement of Aim – Statement of teacher related to the topic e.g. today we will study ……………. (The name of the topic)

After Teacher's statement – The topic is written on the black – board

Presentation of lesson – The following may be followed.

Content	Sprcification of Behavioral objectives	Learning Experiences (Teacher/LearnerActivities)	Evaluation

This format is a specimen, not a universal format of lesson planning. It maydiffer from teacher to teacher as well as college / University to other college. The format is different from the point of view of organization of contents, the steps remain the same.

Content:

The subject matter to be taught in the class by the teacher. The content of the lesson is divided into small parts. Then each part is treated as teaching point. Generally a lesson should contain at least two or three teaching points.

Specification of Behavioural Objectives:

The expected learning outcomes of the students are mentioned in the form of action verb is called Specification. It denotes the expected overt behavior of the student that can be observable and measurable. Example: Recognizes, Defines, Identifies, etc.

Learning Experience:

Teacher's Statements, developmental questions, demonstrations, experiments and other activities performed by the teacher in the classroom. Student's listening, writing, watching, giving responses and other activities performed in the classroom.

Evaluation:

After completing the lesson, the teacher evaluates the performance of the class that to what extent students have achieved the objectives of the lesson taught in the classroom. Evaluation may be written or oral. Short answer questions should be asked objective type of questions, are best for evaluation of the lesson.

Home work:

It should be based on the application of acquired knowledge.

3.4 Organizing Teaching

Teaching affects learning directly and indirectly both. If we disregard the self-efforts of learners, learning the teacher. Level of teaching changes, its objectives and way of attack also change and evaluation of students also changes accordingly. Educators have determined three

levels of teaching and a teacher selects these levels according to the ability and mental levels of students.
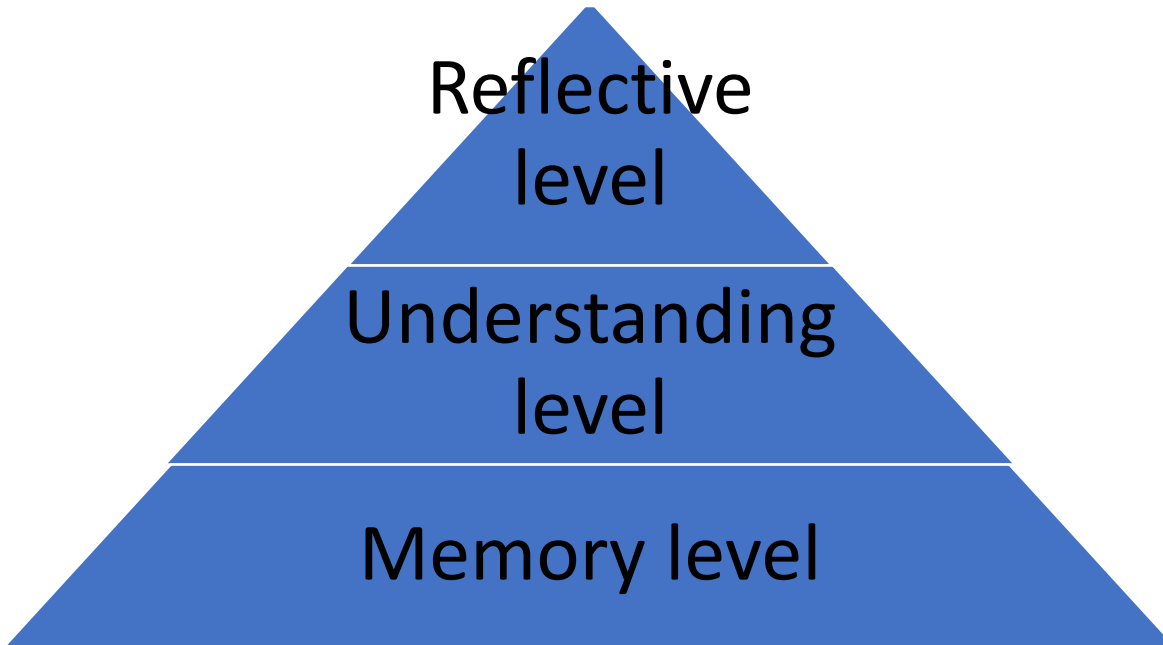
It must be kept in mind that only one level of teaching is selected at a time. When one level of teaching completes and the teacher receives feedback by the process of evaluation only then he skips to the next level. All these three levels of teaching can be arrived at either in one period or it may take several periods to reach all these levels. Determination of the level of teaching depends on the following factors:

- Mental and academic level of students.
- Nature of the content (subject-matter).
- Skill of the teacher to use different strategies of teaching

MEMORY LEVEL OF TEACHING (MLT)

This is a thoughtless teaching level. This level is concerned with the mere reproduction of learnt material by students through recognition and recall. If subject matter presented by the teacher is crammed by students, task of this level of teaching is said to be complete. The subject matter which is easy, interesting and purposeful is learnt by students easily and retained for a longer period of time. On the other hand, difficult, dull and purposeless subject-matter is learnt with difficulty and forgotten hurriedly.

At this level of teaching, without regarding inserts the facts and information into the minds of learners like an autocrat and learners receive them like a mute audience. This attitude of the teacher makes the teaching teacher centered and low level of interaction is seen between

teachers and students. This instructional type of teaching can develop only limited level of cognitive domain and if students are able to reproduce the learnt facts or events in written or oral form, teaching is said to be successful.

In spite of some shortcomings, the advantages of this level of teaching are that this is the foundation stage of understanding or reflective levels of teaching, i.e., completing teaching at this level. We cannot adopt any other level of teaching without

Model of MLT

This model was presented by **Herbart**. Like other two models this model is also based on the following four points:

I. Focus (Objectives)
II. Syntax (Methods and Strategies)
III Social System (learning environment)
IV. Support system (Evaluation)
1. Focus: This level of teaching focuses on the following points

I. Cramming facts and principles by students and their proper retention.

II Presenting the crammed materials when needed in written or oral form.

III. Presenting subject-matter to students like an autocrat.

   Syntax: Herbart has divided the memory level of teaching into **five** categories. A teacher adoptsthese five steps one by one in order to create proper learning environment.

I. **Preparation and statement of objectives:** In the preparation stage, the teacher asks few questions in the class in order to check previous knowledge of students and arouse their curiosity. The teacher brings the students to the main topic gradually and when topic is clear to students, teacher repeats the topic orally and writes it on the blackboard.

   Presentation: At this stage, the teacher presents new knowledge before his students on the basis of their previous knowledge in such a manner that a bond is established between new and old knowledge. The teacher keeps the following four points into his mind:

- The teacher does not deviate from the subject matter slightly.
- The type of knowledge which is to be given to students, is prepared by the teacher in advance, i.e., advance lesson planning is made
- The teacher gives such knowledge to his students that can be evaluated.
- At this stage the teacher tries to gather maximum information from his students.

III.Comparison and Association: At this stage the teacher associates different facts, events and subjects in such a manner that they can be easily compared with each other, e.g., giving the

knowledge of antonyms and synonyms, comparing the similarities and dissimilarities of the life incidents and characters of gentlemen-real or created ones. This makes the knowledge fixed into the minds of learners.

IV. Generalization: At this stage the teacher teaches how to develop new rules and principles on the basis of given facts and information, i.e., obtained knowledge is generalized in similar situations.

V. Application: In the last stage the learnt knowledge is applied in real life situations, i.e., use of words in sentences or making stories with the help of sentences etc.

The above stages given in the syntax show that memory level of teaching also needs abundant use of intellect and creativity. Mere cramming of facts or principles without understanding is not enough.

Social system: The social system of MLT is that teacher's behavior dominates over students' one. He enjoys full commands over his students. Almost no freedom is given to students to express themselves. Teacher gives them chance to take part in the lesson through the use of motivation techniques only, i.e., the freedom of student's lies of the teacher.

Support system: In MLT, whatever students have gained is tested using written or oral tests. Tests may be objective and essay type both. Exactness of the response from the side of students is important. Full marks are given to students only when he reproduces exactly what he is taught by his teacher.

Suggestion for Improving MLT

A teacher must heed to the following suggestions in order to make this level of teaching a success.

 I. Presented material should be meaningful and interesting for students only then it will be retained them.
II Subject matter should be presented to students systematically in a logical sequence only then proper relationship can be established between new and old knowledge.
III. When students are tired physically or mentally, they should never be taught.

IV. Feedback and reinforcement must be given to students regularly for motivating them.

V. Recall and rehearsal of the learnt knowledge should be done at short intervals. Delay leads to decay.

VI. Students should not only cram the subject matter but they should also rehearse it in writing and these should be done by using part memory method.

VII. There must be full control on cheating in the examination hall. If students are able to produce the material just by copying, the evaluation of teacher's effectiveness will not be possible there.

(B) UNDERSTANDING LEVEL OFTEACHING (ULT)

Successful accomplishment of memory level of teaching is the assumption of ULT. We may call it a necessary supplement to the first level of teaching. By understanding level of teaching the teacher develops the mental capacities of students in such a manner that the students can now understand and apply the laws and principles in a confident manner. Their potentials developed by this level of teaching enable them to solve the problems themselves. The roles of the students do not lag behind the teacher. For example, students can do long mathematical sums by using the numerical tables is also the example of understanding level of teaching.

Model of ULT

ULT model prepared by **Morrison** is given below. This model is basically based on unit approach of lesson planning.

Focus: Getting complete mastery over the subject-matter by the students is the focus of teaching here. The learning of students should be so perfect that students are not less than the teacher at least for the subject matter taught to them. Students clearly understand what they are being taught in the class.

Syntax: Syntax of the model is divided into five sub stages of teaching:

Exploration: Three activities are performed by the teacher here:

I. He finds out the entering behavior of students by asking questions from them. The teacher especially sees whether memory level of teaching is complete or not.

II He analyses the content and divides it into different units. Then he arranges all these units in a logical sequence so that lesson can be understood easily.

III He selects different teaching strategies suitable to the presentation of each unit so that different units of the content may be presented by different strategies and techniques.

(b) Presentation:

The teacher does the following three activities here:

I. He presents the subject matter unit by unit and maintains the logical sequence in between these units.

II While presenting the units of the subject matter, he receives the feedback from his students whether each unit has been clearly understood or not.

III He recapitulates the subject matter till it is clearly understood by almost all the students of the class.

Assimilation: This is the third stage of teaching. After presenting the subject-matter to students the teacher provides them opportunities for the assimilation of the acquired knowledge. It requires the following activities on the part of the teacher

I. The teacher provides the opportunities of generalization to his students through the process of assimilation. For example, after teaching a model problem to the students, he gives another problem of the same difficulty level to his students and asks questions from it.

II He takes the students to the depth of the subject matter by the process of assimilation, e.g., different methods of an extract are given for the purpose.

III He provides opportunities to each of his students to understand the content according to their respective leaning capacities.

IV. When students do self-study during the activity of assimilation, the teacher supervises them.

V. After self-study, the teacher tests the students whether they have got mastery over the subject matter or not. If students have acquired the capacity of generalization, the assimilation process is said to be completed.

Organization: After assimilation, the students either enter organization stage or recitation as the nature of the subject-matter demands. In the organization stage, the students are expected to reproduce the subject-matter in his own language in written form without taking help from anybody. If students are able to do so, the understanding level of teaching is said to be accomplished.

Recitation: If after assimilation subject-matter is to reproduce orally by the students instead of written form, it is called recitation. The teacher must be very careful in organizing the activities of recitation or organization; otherwise, the students will reproduce the learnt material by cramming. The material reproduced in organization or recitation should be in the learner's own language not in the language of the text - book.

Social System: The teacher is more active in the class than the students at the time of exploration and presentation. This is necessary to control the behavior of students. During the process of assimilation both of them are equally active. After that learners are required to be more active than the teacher. Teacher motivates his students also during all these five stages of teaching. Thus, we see a fully democratic environment in the class.

Support System: Examination system constantly changes at this level of teaching. Sometimes written and sometimes oral tests are conducted and the tests may be objective and essay type

both. Organizational ability of students and their expression is much emphasized here as compared to mere recognition or recall, hence, objective type tests are least applied.

Suggestions for improving ULT

Following suggestions are given for the benefit of the teacher to improve understanding level of teaching:

I. Students should not be brought to the understanding level without passing the memory level of teaching. If they do not know the fundamentals of a concept, teaching at this level will only be a waste of time.

II Children should be brought to different stages of teaching from exploration to recitation in a sequential order. It means that once the teacher has not accomplished the presentation stage, he should not take his students to the assimilation stage.

III Teacher should motivate his students the stages of teaching. Reinforcement techniques should be regularly applied to motivate the students.

IV. The teacher should take initiative himself to solve the individual problems of his students. It is because all learners cannot learn at equal speed. It requires that teacher should test his students at short intervals and change his accordingly.

V. The teacher should have full command over the subject only then he can enable his students to comprehend the subject-matter to the desired extent.

VI. The teacher should raise the aspiration level of his students to develop as high as possible.

VII. The teacher should be able comprehensive questions from the textual matter. These questions will open new avenues learning.

VIII. While evaluating the understanding power of his students, the teacher must be very careful so that answers are not supplied on the basis of memory.

(C) REFLECTIVE LEVEL OF TEACHING (RLT)

This is the highest level of teaching which starts when understanding level of teaching are over. It is a child centered approach of teaching where students are more active than the teacher and they deliberate consciously over the understood material. By doing so the students present their original views.

M. Bigge has elaborated it in the "Reflective level of teaching tends to develop classroom atmosphere which is more alive and exciting, more critical and penetrating and more open to fresh and original thinking".

Thus, this level of teaching increases the thinking power of students and when this ability is developed in students fully they can solve the real life related problems by applying reflective thinking and logic. This teaching is basically problem-centered. The teacher extracts the problems from within the text and presents them before his students. After looking at the problem, they become excited and tense. Then they reach to the solution of the problem by applying critical judgment techniques. The knowledge which is obtained by this reflection is original and permanent.

Model of RLT

This model was prepared by Hunt. The summary of the model is given below.

Focus: The focus of the reflective level of teaching is to develop following abilities among learners.

I. To develop the ability of problem solving among students.

II To develop creative and critical abilities among students.

III. To develop original and free-thinking power of students.

Syntax: Syntax of the model is comprised of four stages of teaching.

I. In the first step the teacher presents the problematic situation before his students.

II. Students formulate the hypothesis after pondering over the problem seriously. In the example given above, they formulate one or two hypotheses on the basis of the consequences

III. In the third step students apply reflective thinking and collect relevant data for testing the hypothesis.

IV. Hypothesis is tested in the last stage of teaching and conclusions are drawn. If reflective data do not support the hypotheses, they are rejected.

V. V In medieval period greatly emphasized in the madrassa of Arabia, Turkey and Central Asia and Logic and philosophy were especially taught to students to develop reflective power.

RLT is different from problem solving method in the sense that in reflective level of teaching only imaginary problems are taken while problem solving method takes real problems of life to solve. The second difference is that former is a mental approach while later is a practical approach of teaching.

Social system: The learning environment is fully laissez faire at this level of teaching. The atmosphere of the class is so open and free that students can express themselves fully in the manner they like. Seminars and group discussions are also organized in the class for reaching the

solution of the problem. Thus, we see that students are always more active in the class than the teacher. The task of the teacher is only to guide them.

Support System: Objective type questions are not asked at all for evaluating the achievement of learners at reflective level of teaching. Evaluation is done either through essay type tests or through discussion, seminars and speech competitions. The more the views of a student are logical and convincing, the more he is given marks.

Suggestions for improving RLT

- A teacher should keep the following suggestive points in view in order to make this level of teaching a success:

- After creating the problem to be solved, the teacher should not interfere the thinking process of students at all. Students should reach the results themselves.

- A teacher should raise the aspiration level of students as high as possible. High aspiration level can only lead to high level of reflection.

- The teacher himself should be creative and highly intelligent.

- The teacher should extract only such problems for reflective thinking which have direct relevance to the career of students. It means that problems must be useful for students.

- Hypothesis which is the tentative solution of the problem should be formulated by students with the help of the teacher. Such hypothesis should never be formulated whose testing is not possible by the collected data.

- In the evaluation process, if the teacher involves the students also, it is far better. It will help the teacher to critically examine the views. It means that the achievement of a student is evaluated not by his teacher only but his class fellows also evaluate him and criticize his views. Then final marks are allotted by the teacher on the basis of the total assessment.

3.5 Unit Plan

In unit plan, the emphasis is given to the organization of learning experiences, teaching learning materials and though processes. The central importance is given to the needs and contemporary goals of the learners. A unit may be conceived as a series of group planned, related and unifying experiences or activities in which the child participates in order to achieve an adaptation to or control over an area of living. This learning product is an integrated combination of skills, habits, attributes, knowledge, under standings and appreciations of the child.

Definition of Unit Plan

According to **Morrison**, "A unit is a comprehensive and significant aspect of the environment of an organized science and art."

According to **Preston**, "A unit is as large a block of related subject matters as can be overviewed by the learner"

According to **Samford**, "Unit is an outline of carefully selected subject matter which has been isolated because of its relationship to pupils need and interests".

According to **Wisely**, "The unit is an organized body of information and experience designed to effect significant out come for the learner".

Steps involved in unit planning

It involves the following stages.

Content Analysis

After choosing the unit, the teacher has to do a detailed analysis of the contents of the unit to get an in – depth knowledge of the terms, concepts, principles, generalizations constituting the unit. This helps the teacher to break up the unit into meaningful sub – units and lessons retaining the continuity throughout the unit.

Stating the general and specific objectives

The teacher should identify the general objectives and state the specific objectives or learning outcomes to be achieved as a result of learning the unit.

Planning the learning activities

The third step is to select suitable learning experiences that may lead to the realization of the stated objectives keeping in mind individual differences, the psychology of learning, the content and objectives. Suitable learning activities can be planned, to which the students will be exposed to during the instruction of the unit. The teacher also has to plan specific teaching strategies that will be employed for each segment (sub unit) of the unit.

Evaluation procedure

The last step of unit planning is to select appropriate evaluation tools and techniques to assess the content coverage, the realization of the stated objectives and the effectiveness of teaching strategies.

Advantages of Unit Plan

- It develops scientific attitude, problem – solving, critical thinking, skills and scientific inquiry among the children.
- While keeping in mind the mental development of child, the teacher can present subject matter in a systematic, logical and effective manner.
- It is psychologically sound approach for effective teaching learning process.
- It provides opportunity to the teacher to do experiments with his over ideas in – collaboration with pupils.
- It facilitates the use of a wide range of resource such as laboratory equipments, charts, films, reference material as an integral part of the learning experiences.
- It develops the qualities like self-confidence, persistence, security, etc. in the students.
- It is also flexible to deal with a wide range of learning situation.

Disadvantages of Unit Plan

- Preparation / Planning of unit is not easy task.
- Use of guide sheets tends to make learning monotonous and sterestyped.
- There is lack of freshness.
- Overburdening of teacher with written work.
- It is time consuming also.
- Teaching becomes mechanical.

Example of Unit Plan

Name of the unit: Set Theory and operation
Class: IX   No. of sub – unit: 6
Total Periods: 15   Duration of Period:35 Minute

S.No.	Sub-Units	No.of Periods
I	Set theory and operations – Basic informations and notations	02
II	Methods of representation of a set	02
III	Kinds of sets	03
IV	Union and information of sets	03
V	Venn Diagram	02
VI	Exercise : solution of problems	03

Format of Unit Plan

Class :   Subject:

Name of the unit :

No. of Periods required for the unit:

Duration of the Period:

No. of Periods for evaluation / Recapitulation:

No. of Periods for Remedial Teaching:

Sub – unit and Topic	Teaching points	Specific objectives	Teaching – Learning Situations		Teaching Aids or Audio – visual aids	Home Assignment	Evaluation
			Teacher's Activities	Student's Activities			
1. 2. 3. 4. 5.							

3.6 Lesson Plan

The day - to – day planning of the details and sequence of each day's work is of great importance to each individual teacher. The daily lesson plan forces a teacher determine what learning activities will go on in the class during that period. A teacher who goes to the class without planning for the lesson runs the risk of wasting time and dissipating effort. Indeed the very act of writing the plan out forces a crystallization of the plan in the teacher's mind. This is in itself is an important step towards a successful consummation of what is being planned.

Definitions of Lesson Plan

Good defined a lesson plan as an " Online of the important points of a lesson arranged in the order in which they are to be presented to students by teacher"

Davies defined lesson plan as "an arrangement of learning, planning, organizing, and controlling by a teacher".

In the words of **Stands, Laster.B**" A Lesson plan is actually a plan of action. It therefore includes the working philosophy of the teacher, her knowledge of philosophy, her information

about and understanding of her pupils, her comprehension of the objectives of education, her knowledge of the material to be taught, and her ability to utilize effective methods".

Binning and Binning defined as "Daily lesson planning involves defining the objectives, selecting and arranging the subject – matter and determining the method and procedure."

Principles of Planning

Some principles of planning are as follows –

Plan should be Flexible

The plan should be concrete and specific as well as it should also flexible. Each child is different in his ability, experiences, needs, his interests and each has his own attitudes. Necessary extension, revision and reorganization of plan is a favourable index of the quality of teaching.

Plan should be Specific in Nature

A plan should give specific information as to how the teaching – learning process is expected to move forward. There should be specific provision for the anticipated procedures.

Plan should be Realistic

a. The mathematics teacher should do the task of planning in the real sense.

b. The level of educational development must be taken into account.

c. The amount of time anticipated should be taken into account.

d. The mathematics teacher should assess his teaching resources carefully.

e. It should be linked with the previous knowledge of the child.

f. It should contain suitable subject matter.

Advantages of Lesson Plan

o It help the teacher to understand the objectives and desirable change in the child properly.
o It helps in creating interest amongst student towards the lesson.
o It guides the teacher, what and how he must teach.
o The content is organized systematically.
o The lesson plan stimulates the teacher and student to think in an organized way.
o It compels the teacher to think about the use of teaching aids.
o It develops self – confidence in the teachers.

o It inspires the teacher in evaluating his teaching.

o It also helps the teacher to select appropriate method and techniques of teaching.

Disadvantages of Lesson Plan

o The teaching process becomes more difficult.

o There is lack of flexibility in lesson planning.

o Teacher cannot work / teach independently.

o More time is required to plan a lesson.

o Sometimes simple matters become complicated.

o In new or odd situations teacher feels himself helpless.

3.7 Lesson Plan Writing

Name of the Student Teacher :xxxx   Subject: Mathematics

Class / Section   : IX   Unit: Algebra

Name of the School: xxxxx   Topic: Polynomial

Instructional Objectives:

The Student,

- Identifies the classification of polynomials based on degrees and number of terms.
- Defines the polynomial.
- Explains the polynomial expression.
- List outs the type of polynomial.
- Explains the monomial, binomial and Trinomial.
- Gives the example of monomial, binomial and Trinomial.
- Compares the monomial and binomial.
- Computes the problem for polynomial based on number of terms.
- Solves and verifies the problem with speed and accuracy.

Instructional Resources Required

Charts to explain the types of Polynomial

Flash cards to identifies the algebraic expression

Previous Knowledge of Learners

What is mean by variables?

Tell me some examples for constant.

Define the co – efficient of the terms.

Content/Concept	Specification of Behavioural Objectives	Learning Experience(Teacher/Learner Activities)	Evaluation
Polynomial: The polynomial is an algebraic expression in which no variables appears in the denominators	Defines	The teacher defines the polynomial is an algebraic expression	Define Polynomial.
	Discusses	Students discuss the definition of Polynomial.	
Algebraic Expression is of the from $P(x) = a_nx^n + a_{n-1}x^{n-1} + \ldots + a_2x^2 + a_1x + a_0$	Explains	Teacher explains the polynomial in one variable 'x' of degree 'n' where $a_0, a_1, a_2, \ldots a_n$ are constants.	Write the algebraic expression with one variable.
$4y^3 + 2y^2 + 3y + 6$	Writes	Students write the polynomial in their note.	Identifies the expression as polynomial or not.
	Interprets	Teacher interprets the polynomial with one variable i.e., ' y'	
		Students analyses the expression.	
Types of polynomials on basis of number of terms, polynomials are divided into	Analysis		
	List outs	Teacher list out the types of polynomial using charts	
*Monomial *Binomial and *Trinomial		*Monomial *Binomial and *Trinomial	List out the types of the polynomials.
	Observes	Students observe the types of polynomials.	

Content / Concept	Specification of Behavioural Objectives	Learning Experience (Teacher/ Learner Activities)	Evaluation
Monomial A polynomial having one term is called the Monomial	Explains	Teacher explains the monomial form with examples. Eg.5.6m, 12ab. which contains one term.	Give an example of monomial.
	Identifies	Students identify the monomial.	Identify the monomial 12x, x+12.
Binomial A polynomial having two terms is called the Binomial.	States	Teachers states that binomial form Eg. 5x+3, 4a-2, 10P+1.	State Binomial.
	Compares	Students compare and identify the monomial and binomial.	write the binomial x, 3x+3, 10P, 10P+2.
	Explains	Teacher explains in terms x+3, x, refers to variable and 3 is constant and X+3 is binomial.	
Trinomial A Polynomial having three terms is called a Trinomial.	Explains	Teacher explains the trinomial form with example. Eg.$4x^2$+8x-12. This expression contains three terms as $4x^2$, 8x and -12. So it is trinomial.	Explain the trinomial with an example.
	Identifies	Students identifies the trinomial	Identify the $9x^2$-x-2 is trinomial or not.

Content / Concept	Specification of Behavioural Objectives	Learning Experience (Teacher/ Learner Activities)	Evaluation
Degrees of Polynomial: In a polynomial, the highest power of the variable is called the Degree of Polynomial.	Dictates Calculates	Teacher dictates the problem and asks to find the degree. Students calculate the degree of polynomial *Degree of a = 1 *Degree of b = 8. .'.Degree of polynomial $6ab^8$ = 1+8 = 9.	Find the degree of polynomial $6ab^8$.
Polynomials, Types of polynomial and the degree of Polynomial	Verifies Summarizes recalls	Teacher verifies the result. Teacher summarizes the concept of polynomials and ask the question to the student. Student recalls all the concept.	Identifies the types of polynomial. a) $8+\sqrt{9}$ b)$4y^3+4y^2+y+2$

Follow up Activities

Classify the following polynomials based on the term

$8 + q$

$5y^2$

iii.$2r^2 + 3r - 1 + 1/8$

$m^2 + 4/5\ m + 8$

$5n^2 + 6n - 1$

Signature of the Guide Teacher   **Signature of the Student Teacher**

3.8 Conclusion

Unit plan and Lesson Plans do help teachers in organizing their actions in advance and help them undertake teaching in an interesting and efficient manner. If planned properly, unit and lesson plans may lead to better quality of learning amongst children. It is, therefore, important for every teacher to develop a habit of unit and lesson planning and keep doing it throughout his / her teaching career.