Metric 2.4.12- Performance of students during internship is assessed by the institution in terms of observations of different persons such as

1. Self
2. Peers (fellow interns)
3. Teachers / School* Teachers
4. Principal / School* Principal
5. B.Ed Students / School* Students

Clarification Asked-

Assessment criteria adopted by each of the selected persons (For Bachelor and PG Programmes as applicable)   Two filled in sample observation formats for each of the claimed assessors

Response-

1. Two filled in sample observation formats for each of the claimed assessors are attached. **(Appendix-I)**

Appendix-I

SAKET COLLEGE OF EDUCATION, KALYAN (E).

Supervision Check List

Name of School Teacher : Shweta Tiwari and Prachi Pawar

Subject : Secretarial practice Topic : Qualities of secretary Date : 12/2/19

(Use Tick Mark)

I. Set induction

	Topic
Demonstration	Use of Previous Knowledge ✓ Posing intriguing
Analogy	Problem
Teaching aids ✓	Questioning Narration
Story Telling	

II Stimulus Variation (Tick Mark)

Questioning	Narration	B.B. Work
Pictures	Diagrams	Models
Maps	Charts	Experiment
Demonstration ✓	Dramatization	Recitation
Model Reading	Model Recitation	Any other

(Re. Extent of use : Teachnique of using. Selection etc.)

III. Questioning

Faulty Qs : (Tally mark frequency, note down examples)

Repetition of Q	Suggestive Q ✓
Changing form of Q	Easy
Mannerisms in Q e.g. Yes ?	Grammatical error in Q
Vague Q	Double Barreled Q
Difficult	Echo Q
Elliptical Q	Q not relevant to-content
Yes/No Q	Adequancy : Few/sufficient too many

IV. Response to pupil's Answer and Reinforcement (Tally Mark)

Correct Answers :

Verbal Reinforcement :

Yes	Right ✓	Good	V. Good
Exactly	That's right ✓	Correct	Excellent

Non – verbal Reinforcement :

Incorrect Answers :

Mocking	Gentle indication
Harsh remark	not indication

Pratially Correct Answer :

No indication

Further questioning of pupils

Further questioning of other pupils

Further questioning of other pupils and
then questioning of first pupil ✓

Mannerism in Reinforcement : e.g. repeating answer

Handling of answer of pupils : v.good/good/average/poor/v. poor

Suggestions : Give more examples in explaination

V. Class-room interaction (Tick Mark)

	excessive	adequate	insufficient
Teacher-Student	_____	_____	_____
Student-Student	_____	_____	✓
Student-Teacher	_____	✓	_____

Suggestions :

VI. Closure : (Tick Mark)

Summary : adequate/too brief/too lengthy
Developed by response of pupils
Developed by teacher
Developed at the end of the lesson ✓
Developed at specific points in the lesson

VII. Evaluation :

Followed same sequence as in lesson	Good/Average/Poor
Variety	Good/Average/Poor
Different techniques were used	Good/Average/Poor
Core elements were evaluated	Good/Average/Poor
Major objectives of lesson evaluated	Good/Average/Poor
C. B. Work well organised	Good/Average/Poor
C. B. Work neat	Good/Average/Poor
C. B. Work handwriting good	Good/Average/Poor

Suggestions :

VIII. Class-room Management :

Good/Average/Poor
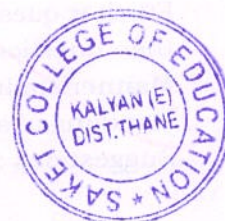Teachers efforts of maintaining discipline Good/Average/Poor
Suggestions :

IX. Plan implementation (Tick Mark)
Extent to which

	V.good	Good	Average	Poor	V.Poor
1. Objectives were kept in view --		✓			
2. Objectives were realised --		✓			
3. Interest created in pupils --		✓			
4. Pupils were involved --			✓		
5. Teacher's preparation --			✓		
6. Teacher's mastery on method --			✓		
7. Teacher's mastery on subject matter --			✓		
8. Usage of language --		✓			
9. Usage of teaching aids --	✓				
10. Creation of rapport with the class --		✓			

Suggestions :

Give more examples in explanation

SAKET COLLEGE OF EDUCATION, KALYAN (E).

Supervision Check List

Name of School Teacher : --------- नीलम नवघरकर ----------

Subject : ------ हिन्दी ---------- Topic : ------ रहस्य ---------- Date : 29/08/2021

(Use Tick Mark)

I. Set induction   Topic

Demonstration   Use of Previous Knowledge ✓   Posing intriguing
Analogy   Problem
Teaching aids ✓   Questioning   Narration
Story Telling

II Stimulus Variation (Tick Mark)

Questioning ✓	Narration	B.B. Work
Pictures	Diagrams	Models
Maps	Charts ✓	Experiment
Demonstration	Dramatization	Recitation
Model Reading	Model Recitation	Any other

(Re. Extent of use : Teachnique of using. Selection etc.)

III. Questioning

Faulty Qs : (Tally mark frequency, note down examples)

Repetition of Q	Suggestive Q ✓
Changing form of Q	Easy
Mannerisms in Q e.g. Yes ?	Grammatical error in Q
Vague Q	Double Barreled Q
Difficult	Echo Q
Elliptical Q	Q not relevant to-content
Yes/No Q	Adequancy : Few/sufficient too many

IV. Response to pupil's Answer and Reinforcement (Tally Mark)

Correct Answers :
Verbal Reinforcement :

Yes	Right	Good ✓	V. Good
Exactly	That's right	Correct	Excellent

Non – verbal Reinforcement :
Incorrect Answers :

Mocking ✓   Gentle indication

Harsh remark   not indication
Pratially Correct Answer :
No indication
Further questioning of pupils
Further questioning of other pupils
Further questioning of other pupils and
then questioning of first pupil
Mannerism in Reinforcement : e.g. repeating answer
Handling of answer of pupils : v.good/good/average/poor/v. poor
Suggestions :

V. Class-room interaction (Tick Mark)

	excessive	adequate	insufficient
Teacher-Student		✓	
Student-Student			
Student-Teacher			

Suggestions :

VI. Closure : (Tick Mark)
   Summary : adequate/too brief/too lengthy
   Developed by response of pupils
   Developed by teacher
   Developed at the end of the lesson
   Developed at specific points in the lesson

VII. Evaluation :

	✓
Followed same sequence as in lesson	Good/Average/Poor
Variety	Good/Average/Poor
Different techniques were used	Good/Average/Poor
Core elements were evaluated	Good/Average/Poor
Major objectives of lesson evaluated	Good/Average/Poor
C. B. Work well organised	Good/Average/Poor
C. B. Work neat	Good/Average/Poor
C. B. Work handwriting good	Good/Average/Poor
Suggestions :	

VIII. Class-room Management :

Good/Average/Poor
Teachers efforts of maintaining discipline Good/Average/Poor
Suggestions :

IX. Plan implementation (Tick Mark)
Extent to which

	V.good	Good	Average	Poor	V.Poor
1. Objectives were kept in view -- ------	✓				
2. Objectives were realised -- ------	✓				
3. Interest created in pupils -- ------		✓			
4. Pupils were involved -- ------					
5. Teacher's preparation -- ------	✓				
6. Teacher's mastery on method -- ------	✓				
7. Teacher's mastery on subject matter -- ------	✓				
8. Usage of language -- ------	✓				
9. Usage of teaching aids -- ------		✓			
10. Creation of rapport with the class -- ------		✓			

Suggestions :

SAKET COLLEGE OF EDUCATION, KALYAN (E).

Supervision Check List

Name of School Teacher: __Smita Pal__

Subject: __Science__ Topic: __Nutrition and Diet__ Date: __15|9|22__

(Use Tick Mark)

I. Set induction   Topic

  Demonstration   ✓ Use of Previous Knowledge   Posing intriguing
  Analogy   Problem
  ✓ Teaching aids   Questioning   Narration
  Story Telling

II Stimulus Variation (Tick Mark)

Questioning	Narration	✓ B.B. Work
Pictures	✓ Diagrams	Models
Maps	Charts	Experiment
Demonstration	Dramatization	Recitation
Model Reading	Model Recitation	Any other

(Re. Extent of use: Technique of using. Selection etc.)

III. Questioning

Faulty Qs: (Tally mark frequency, note down examples)

Repetition of Q	Suggestive Q
Changing form of Q	✓ Easy
Mannerisms in Q e.g. Yes?	Grammatical error in Q
Vague Q	Double Barreled Q
Difficult	Echo Q
Elliptical Q	Q not relevant to-content
Yes/No Q	Adequancy : Few/sufficient too many

IV. Response to pupil's Answer and Reinforcement (Tally Mark)

Correct Answers :

Verbal Reinforcement :

✓ Yes	Right	Good	V. Good
✓ Exactly	That's right	Correct	Excellent

Non – verbal Reinforcement :

Incorrect Answers :

Mocking   Gentle indication

Harsh remark   ✓ not indication

Pratially Correct Answer :

No indication

Further questioning of pupils

Further questioning of other pupils

Further questioning of other pupils and
then questioning of first pupil

Mannerism in Reinforcement : e.g. repeating answer

Handling of answer of pupils : v.good/good/average/poor/v. poor

Suggestions :

V. Class-room interaction (Tick Mark)

	excessive	adequate	insufficient
Teacher-Student	✓		
Student-Student	✓		
Student-Teacher	✓		

Suggestions :

VI. Closure : (Tick Mark) ✓
   Summary : adequate/too brief/too lengthy
   Developed by response of pupils
   Developed by teacher
   Developed at the end of the lesson
   Developed at specific points in the lesson

VII. Evaluation :

Followed same sequence as in lesson	✓ Good/Average/Poor
Variety	✓ Good/Average/Poor
Different techniques were used	✓ Good/Average/Poor
Core elements were evaluated	✓ Good/Average/Poor
Major objectives of lesson evaluated	✓ Good/Average/Poor
C. B. Work well organised	✓ Good/Average/Poor
C. B. Work neat	✓ Good/Average/Poor
C. B. Work handwriting good	✓ Good/Average/Poor

Suggestions :

VIII. Class-room Management :

   ✓ Good/Average/Poor
   Teachers efforts of maintaining discipline ✓ Good/Average/Poor
   Suggestions :

IX. Plan implementation (Tick Mark)
   Extent to which

	V.Good	Good	Average	Poor	V.Poor
1. Objectives were kept in view	✓				
2. Objectives were realised	✓				
3. Interest created in pupils	✓				
4. Pupils were involved	✓				
5. Teacher's preparation	✓				
6. Teacher's mastery on method	✓				
7. Teacher's mastery on subject matter	✓				
8. Usage of language	✓				
9. Usage of teaching aids	✓				
10. Creation of rapport with the class	✓				

Suggestions : — Overall good.

SAKET COLLEGE OF EDUCATION, KALYAN (E).

Supervision Check List

Name of School Teacher : मधुरानी पांडेय

Student

Subject : हिन्दी (गध) --- Topic : रूपा करोगर वरण Date : 17/7/2023

(Use Tick Mark)

I. Set induction

Demonstration
Analogy
Teaching aids
Story Telling

Topic

✓ Use of Previous Knowledge   Posing intriguing
                                   Problem
         Questioning   Narration

II Stimulus Variation (Tick Mark)

✓ Questioning   Narration   B.B. Work
Pictures   Diagrams   Models
Maps   Charts   Experiment
Demonstration   Dramatization   Recitation
Model Reading   Model Recitation   Any other

(Re. Extent of use : Teachnique of using. Selection etc.)

III. Questioning

Faulty Qs : (Tally mark frequency, note down examples)

Repetition of Q   ✓ Suggestive Q
Changing form of Q   ✓ Easy
Mannerisms in Q e.g. Yes ?   Grammatical error in Q
Vague Q   Double Barreled Q
Difficult   Echo Q
Elliptical Q   Q not relevant to-content
Yes/No Q   Adequancy : Few/sufficient too many

IV. Response to pupil's Answer and Reinforcement (Tally Mark)

Correct Answers :
Verbal Reinforcement :
Yes   Right   ✓ Good   V. Good
Exactly   That's right   Correct   Excellent
Non – verbal Reinforcement :
Incorrect Answers :
Mocking   ✓ Gentle indication
Harsh remark   not indication
Pratially Correct Answer :
No indication
✓ Further questioning of pupils
✓ Further questioning of other pupils
Further questioning of other pupils and
then questioning of first pupil
Mannerism in Reinforcement : e.g. repeating answer
Handling of answer of pupils : v.good/good/average/poor/v. poor

Suggestions : आवाज थोडा और बढाओ ।

V. Class-room interaction (Tick Mark)

	excessive	adequate	insufficient
Teacher-Student	_____	✓	_____
Student-Student	_____	✓	_____
Student-Teacher	_____	✓	_____

Suggestions :

VI. Closure : (Tick Mark)

Summary : adequate/too brief/too lengthy
Developed by response of pupils
Developed by teacher
Developed at the end of the lesson
Developed at specific points in the lesson

VII. Evaluation :

Followed same sequence as in lesson	Good/Average/Poor
Variety	Good/Average/Poor
Different techniques were used	Good/Average/Poor
Core elements were evaluated	Good/Average/Poor
Major objectives of lesson evaluated	Good/Average/Poor
C. B. Work well organised	Good/Average/Poor
C. B. Work neat	Good/Average/Poor
C. B. Work handwriting good	Good/Average/Poor

Suggestions : फलक लेखन स्पष्ट है।

VIII. Class-room Management :

Good/Average/Poor
Teachers efforts of maintaining discipline Good/Average/Poor
Suggestions :

IX. Plan implementation (Tick Mark)
Extent to which

	V.good	Good	Average	Poor	V.Poor
1. Objectives were kept in view	--	------	✓		
2. Objectives were realised	--	------	✓		
3. Interest created in pupils	--	------	✓		
4. Pupils were involved	--	------	✓		
5. Teacher's preparation	--	------	✓		
6. Teacher's mastery on method	--	------	✓		
7. Teacher's mastery on subject matter	--	------	✓		
8. Usage of language	--	------	✓		
9. Usage of teaching aids	--	------	✓	✓	
10. Creation of rapport with the class	--	------		✓	

Suggestions : शिक्षण कार्य अच्छा किया गया।

SAKET COLLEGE OF EDUCATION, KALYAN (E).

Supervision Check List

Name of School Teacher : Prachi Pawar and Shweta Tiwari

Subject : mathematics ---- Topic : Straight line ---- Date : 25/03/19

(Use Tick Mark)

I. Set induction

		Topic
Demonstration	✓ Use of Previous Knowledge	Posing intriguing
Analogy		Problem
Teaching aids	Questioning	Narration ✓
Story Telling		

II Stimulus Variation (Tick Mark)

Questioning ✓	Narration	B.B. Work
Pictures	Diagrams	Models ✓
Maps	Charts ✓	Experiment
Demonstration	Dramatization	Recitation
Model Reading	Model Recitation	Any other

(Re. Extent of use : Teachnique of using. Selection etc.)

III. Questioning

Faulty Qs : (Tally mark frequency, note down examples)

Repetition of Q ✓	Suggestive Q
Changing form of Q ✓	Easy
Mannerisms in Q e.g. Yes ?	Grammatical error in Q
Vague Q	Double Barreled Q
Difficult	Echo Q
Elliptical Q	Q not relevant to-content ✓
Yes/No Q	Adequancy : Few/sufficient too many

IV. Response to pupil's Answer and Reinforcement (Tally Mark)

Correct Answers :

Verbal Reinforcement :

Yes ✓	Right	Good ✓	V. Good
Exactly	That's right	Correct	Excellent

Non – verbal Reinforcement :

Incorrect Answers :

Mocking	Gentle indication ✓
Harsh remark ✓	not indication

Pratially Correct Answer :

No indication

Further questioning of pupils
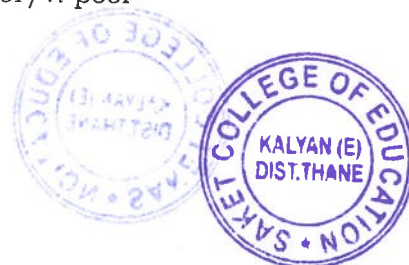
Further questioning of other pupils

Further questioning of other pupils and

then questioning of first pupil

Mannerism in Reinforcement : e.g. repeating answer

Handling of answer of pupils : v.good/good/average/poor/v. poor

Suggestions :

V. Class-room interaction (Tick Mark)

	excessive	adequate	insufficient
Teacher-Student	✓		
Student-Student		✓	
Student-Teacher		✓	

Suggestions :

VI. Closure : (Tick Mark)
   Summary : adequate/too brief/too lengthy
   Developed by response of pupils ✓
   Developed by teacher
   Developed at the end of the lesson ✓
   Developed at specific points in the lesson

VII. Evaluation :

   Followed same sequence as in lesson   Good/Average/Poor
   Variety   Good/Average/Poor
   Different techniques were used   Good/Average/Poor
   Core elements were evaluated   Good/Average/Poor
   Major objectives of lesson evaluated   Good/Average/Poor
   C. B. Work well organised   Good/Average/Poor
   C. B. Work neat   Good/Average/Poor
   C. B. Work handwriting good   Good/Average/Poor
   Suggestions :

VIII. Class-room Management :

   Good/Average/Poor
   Teachers efforts of maintaining discipline Good/Average/Poor
   Suggestions :

IX. Plan implementation (Tick Mark)
   Extent to which

Extent to which	V.good	Good	Average	Poor	V.Poor
1. Objectives were kept in view		✓			
2. Objectives were realised		✓			
3. Interest created in pupils		✓			
4. Pupils were involved		✓			
5. Teacher's preparation		✓			
6. Teacher's mastery on method	✓				
7. Teacher's mastery on subject matter	✓	✓			
8. Usage of language		✓			
9. Usage of teaching aids					
10. Creation of rapport with the class	✓				

   Suggestions :

2.4.13

SAKET COLLEGE OF EDUCATION, KALYAN (E).

Supervision Check List

Name of School Teacher : ------- नीलम नवघरकर --------------------------

Subject : ----- हिन्दी -------- Topic : ---- कबीर के पद ----- Date : __28/08/2021__

(Use Tick Mark)

I. Set induction   Topic

Demonstration   Use of Previous Knowledge ✓   Posing intriguing
Analogy   Problem
Teaching aids ✓   Questioning   Narration
Story Telling

II Stimulus Variation (Tick Mark)

Questioning ✓	Narration	B.B. Work
Pictures ✓	Diagrams	Models
Maps	Charts ✓	Experiment
Demonstration	Dramatization	Recitation
Model Reading	Model Recitation	Any other

(Re. Extent of use : Teachnique of using. Selection etc.)

III. Questioning

Faulty Qs : (Tally mark frequency, note down examples)

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Yes/No Q	Adequancy : Few/sufficient too many

IV. Response to pupil's Answer and Reinforcement (Tally Mark)

Correct Answers :
Verbal Reinforcement :

Yes ✓	Right	Good ✓	V. Good
Exactly	That's right	Correct ✓	Excellent

Non – verbal Reinforcement :
Incorrect Answers :

Mocking ✓   Gentle indication

Harsh remark   not indication
Pratially Correct Answer :
No indication
Further questioning of pupils
Further questioning of other pupils
Further questioning of other pupils and
then questioning of first pupil
Mannerism in Reinforcement : e.g. repeating answer
Handling of answer of pupils : v.good/good/average/poor/v. poor
Suggestions :

V. Class-room interaction (Tick Mark)

	excessive	adequate	insufficient
Teacher-Student			✓
Student-Student			
Student-Teacher		✓	

Suggestions :

VI. Closure : (Tick Mark)
Summary : adequate/too brief/too lengthy ✓
Developed by response of pupils
Developed by teacher
Developed at the end of the lesson
Developed at specific points in the lesson

VII. Evaluation :

Followed same sequence as in lesson	Good/Average/Poor
Variety	Good/Average/Poor
Different techniques were used	Good/Average/Poor
Core elements were evaluated	Good/Average/Poor
Major objectives of lesson evaluated	Good/Average/Poor
C. B. Work well organised	Good/Average/Poor
C. B. Work neat	Good/Average/Poor
C. B. Work handwriting good	Good/Average/Poor

Suggestions :

VIII. Class-room Management :

Good/Average/Poor
Teachers efforts of maintaining discipline Good/Average/Poor
Suggestions :

IX. Plan implementation (Tick Mark)
Extent to which

	V.good	Good	Average	Poor	V.Poor
1. Objectives were kept in view -- ------	✓				
2. Objectives were realised -- ------	✓				
3. Interest created in pupils -- ------		✓			
4. Pupils were involved -- ------	✓				
5. Teacher's preparation -- ------	✓				
6. Teacher's mastery on method -- ------	✓				
7. Teacher's mastery on subject matter -- ------	✓				
8. Usage of language -- ------	✓				
9. Usage of teaching aids -- ------			✓		
10. Creation of rapport with the class -- ------					

Suggestions :

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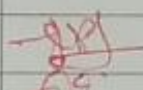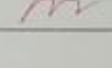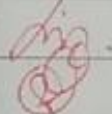
SYBEd SEM III

JADHAV KIRTI DAYANAND

SUB-LESSON PLAN

ASSINGMENT :- INTERNSHIP PROGRAM FILE

Sr.No	lesson Name.	Observer professor	sign	Remark.
1)	practice teaching lesson plan			
	Lesson 1	Jitendra sir		
	lesson-2	Renu mam,		
	lesson - 3	Smita mam.		
	lesson-4	Jitendra sir		
	lesson-5	Jitendra sir.		
	lesson-6	Smita mam		
	lesson -7			
	lesson-8			
	lesson -9			
2)	Co -teaching Lesson.			
	Lesson -1	Renu mam		
	lesson - 2	Jitendra sir		
	Theme based Lesson sm			
	Lesson -1	Smita mam		
	Lesson - 2	Renu mam		
	Nai talim			
	Lesson- 1	smita mam		
	Lesson-2	Jitendra sir		

Practice teaching lesson

Name of the Pupil Teacher	practising School
Jadhav Kirti Dayanand	Anand Global
Roll NO :- 26	kalyan East
Subject : Maths	Std VIII Div :-
Lesson NO :- General (02)	
Lesson No :- (In method) 02	Date : 31/07/19
Topic :- Expansion formulae	time :-
Sub Topic :- Expansion of	
$(x+a)(x+b)$	

Previous knowledge of the class :- students have previous knowledged about constant variable and simple binomial, monomial algebric expansion.

Teaching point	General objective
I) Activity : Expand $(x+a)(x+b)$ using formulae for area of square and rectangle	1) **Knowledge** pupil acquire the knowledge about expansion of $(x+a)(x+b)$
II) Expansion of $(x+a)(x+b)$	2) **understanding** pupil develop an understanding of expansion formula $(x+a)(x+b)$
III) practice set 5.1	3) **Application** pupil applied their knowledge and understanding about familiar with expansion of $(x+a)(x+b)$
	4) **skill** pupil develop the skill required to study expansion formulae $(x+a)(x+b)$

Teaching Aids :- Activity chart showing the expansion formula for areas of a square and rectangle.

Reference :- www.guara.com
Book

Content Analysis	objective specification

Content Analysis

Activity

Expansion of $(x+a)(x+b)$

$(x+a)(x+b)$

$= x(x+b) + a(x+b)$

$= x(x)+x(b)+a(x)+a(b)$

$= x^2 + xb + xa + ab$

$= \boxed{x^2 + x(a+b) + ab}$

Activity: Expand $(x+a)(x+b)$
using formulae for area of
a square and rectangle
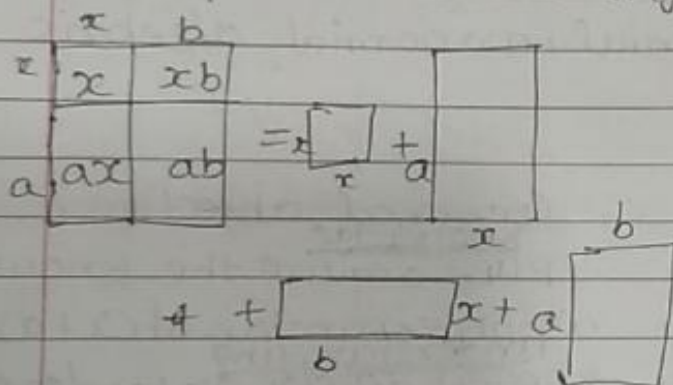
$(x+a)(x+b) =$

$= x^2 + ax + bx + ab$

$\therefore (x+a)(x+b)$

$= x^2 + (a+b)x + ab$

objective specification

↳ pup specific

1) pupil understanding
term expansion $(x+a)(x+b)$

1) Knowledge
pupil recognize the term
expansion of $(x+a)$
$(x+b)$

2) Understanding
pupil will also
understanding relation-
ship between expansion
$(x+a)(x+b)$

3) Application
pupil will be able to
use it in daily life

4) skill :- pupil develop
skill of observation
of various problem
(example) and How
to solve example of
$(x+a)(x+b)$
↳ expansion of

procedure:- yesterday we have learn about expansion of binomial.

statement of Aim :- so today we will learn about expansion formula. $(x+a)(x+b) = ax^2 + (a+b)x + ab$

presentation: - Teacher explain the activity expand $(x+a)(x+b)$ using chart

Teacher say to student write down this activity in your book.

teacher solve examples of $(x+a)(x+b)$

student ask Question to teacher

teacher give answer and explain the topic.

teacher ask Question and say students to expand given example.

student expand example teacher and give to answer to stud teacher.

teacher give homerk.

studenst write down homwork

teacher evaluat topic.

conclusion:- so today we learn about expansion formula of $(x+a)(x+b)$

core element:- Inculcation of scientific temper

value:- scientific attitude.

Evaluation.
1) tell me the expansion formula of $(a+b)^2$

2) tell me the expansion formula of $(a-b)^2$

Recapitulation
1) $(x+3)(x+3)$ solve it

Application
1) $(y+4)(y-3)$

2) $\left(m+\dfrac{3}{2}\right)\left(m+\dfrac{1}{2}\right)$

solve the given example.

Assigment.

1) $\left(x+\dfrac{1}{x}\right)\left(x-\dfrac{1}{x}\right)$

2) $(9x-5t)(9x+3t)$

3) $(3x+4y)(3x+5y)=$

4) $(P+8)(P-3)$

5) $(x-3)(x-7)$

Black Board work

Formula

$(x+a)(x+b) = x^2 + (a+b)x + ab$

Ex 1) $(x+2)(x+3)$

$= x(x+3) + 2(x+3)$

$= x(x) + x(3) + 2(x) + 2(3)$

$= x^2 + 3x + 2x + 6$

$= x^2 + 5x + 6$.

Ex 2) $\left(m + \dfrac{3}{2}\right)\left(m + \dfrac{1}{2}\right)$

$= m^2 + \left(\dfrac{3}{2} + \dfrac{1}{2}\right)m + \dfrac{3}{2} \times \dfrac{1}{2}$

$= m^2 + \dfrac{4m}{2} + \dfrac{3}{4}$

$= m^2 + 2m + \dfrac{3}{4}$

Seen.

Set Induction done —

Black Board done

Lesson explained nicely

Adequate content knowledge

Effective class control

Overall lesson is good.

LESSON NOTES

Name of the Pupil Teacher ... Jadhav Kirti Dayanand.	Practising School ...Anand. Global school
Roll No. **26**	Std. ...8th... Div. ...—
Subject	Date ...31/07/19.
Lesson No. (General) (02)	Time - From ...8:45... To ...9:45.
Lesson No. (In the method) 2	
Topic Expansion formulae subtopic :- Expansion of (x+a) (x+b)	
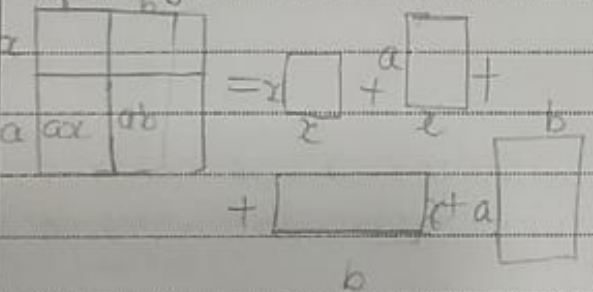
Previous knowledge of the class

Students have previous knowledged about constand variable and simple binomial monomial algebraic expression. expansion.

Teaching Points	General Objectives
I) Activity :- Expand (x+a)(x+b) using formula for area of square for area of and rectangle	**Knowledge** :- Pupil acquire the knowledge about expansion of (x+a)(x+b)
	Understanding :- Pupil develop an understanding of expansion formula (x+a)(x+b)
II) Expansion of (x+a)(x+b)	**Application** :- Pupil applied their knowledge and understanding about familiar with expansion of (x+a)(x+b)
III) Practice set 5.1	**Skill** :- Pupil develop the skill required to study expansion formula (x+a)(x+b)

Teaching Aids :- Activity chart showing the expansion formula for area of a square and rectangle.

Reference Aids :- Book   w.w.w maths fun.com

Content Analysis	Objective : Specifications
Expansion of $(x+a)(x+b)$	Specific. pupil understanding term expansion $(x+a)(x+b)$
$(x+a)(x+b)$ $= x(x+b) + a(x+b)$ $= x(x) + x(b) + a(x) + a(b)$ $= x^2 + xb + xa + ab$ $= x^2 + x(a+b) + ab$	1) knowledge : ① pupil recognize the term expansion of $(x+a)(x+b)$ ② pupil memorize term expansion. of $(x+a)(x+b)$
Activity :- Expand $(x+a)$ $(x+b)$ using formula afor area of a square and rectangle. 	understanding: ① pupil will also understanding relationship between expansion of $(x+a)(x+b)$ ② pupil express their view on expansion of $(x+a)(x+b)$
$\therefore (x+a)(x+b)$ $= x^2 + ax + bx + ab$ $\therefore (x+a)x+b)$ $= x^2 + (a+b)x + ab.$	Application ① pupil will be able to use it in daily life. ⑪ pupil judge their knowledge about expansion of $(x+a)(x+b)$
	skill ① pupil develop skill of observation of various example on and How to solve example of expansion of $(x+a)(x+b)$ ① pupil handale solution of expansion of $(x+a)(x+b)$ (earfully.

Procedure	Evaluation
Introduction :- Yesterday we have learn about expansion of binomial.	**Generalization :-** 1) tell me the expansion formula of $(a+b)^2$ 2) tell me the expansion formula of $(a-b)^2$.
Statement of Aim :- so today we will learn about expansion formula $(x+a)(x+b) = x^2 + (a+b)x + ab$.	
Presentation :- 1) Teacher explain the activity expand $(x+a)(x+b)$ using chart.	
2) Teacher say students to write down this activity in your book. 3) teacher solve example of $(x+a)(x+b)$ 4) Student ask question to teacher. 5) teacher give answer and explain the topic.	**Recapitulation :-** 1) $(x+2)(x+3)$ so expand it.
6) teacher ask question and say students to expand given example 7) Students solve example and give answer to teachers 8) teacher give home work. 9) Student write down homework.	**Application :-** Expand b) the given example. 1) $(y+4)(y-3)$ 2) $(m+\frac{3}{2})(m+\frac{1}{2})$ solve the given example.
Conclusion :- So, today we learn about expansion formula $(x+a)(x+b)$.	
Core Elements :- Inclucation of scientific temper.	
Values :- Scientific attitude.	**Assignment :-** Expand it 1) $(x+\frac{1}{x})(x-\frac{1}{x})$ 2) $(9x-5t)(9x+3t)$ 3) $(p+8)(p-3)$

BLACK BOARD WORK

Subject :- maths

Unit: Expansion e formulae

Subunit :- Expansion of $(x+a)(x+b)$

Formula.

$(x+a)(x+b) = x^2 (a+b)x + ab$

Ex·1 $(x+2)(x+3)$

$= x(x+3) + 2(x+3)$

$= x(x) + x(3) + 2(x) + 2(3)$

$= x^2 + 3x + 2x + 6$

$= x^2 + 5x + 6$

Ex·2) $\left(m + \dfrac{3}{2}\right)\left(m + \dfrac{1}{2}\right)$

$= m^2 + \left(\dfrac{3}{2} \times \dfrac{1}{2}\right)m + \dfrac{3}{2} \times \dfrac{1}{2}$

$= m^2 + \dfrac{4m}{2} + \dfrac{3}{2}$

$= m^2 + 2m + \dfrac{3}{2}$

Remarks Items

- Set induction
- Model Reading
- Model Recitation
- Objective Qns
- Silent Reading
- Narrations
- Explanations
- Illustrations
- Questions
- Use of teaching aids
- Class Response
- Class Participation
- Black Board work
- Experiments
- Demonstrations
- Specimen observation
- Dramantization
- Student's reading / recitation / drill
- Closure
- Teacher's knowledge of content
- Teacher's preparation of lesson
- Method of teaching
- Interest created
- Class control

Seen the remarks of the supervisor

Guiding Professor

Suggestions :-

Set Induction done

- Blackboard work done

- Lesson explained nicely.

General Remarks

Supervising Professor

Name of the pupil teacher   Practising school
Jadhav Kirti Dayanand   Anand Global
Roll No: 26   Kalyan East
Subject :- maths
Lesson No :- General (03)   Std : VIII   Div :-
Lesson No :- (In method)(03)   Date :- 2/8/19
Topic :- Expansion formulae   Time :- 8:45 to 9:15
Subtopic. Expansion of
    $(a+b)^3$

<u>previous knowledge of the class</u> :- Students have
previous knowledge about constant variable
monomial binomial expansi. algebric expansion.

Teaching Point	General objectives
1)(II) Expansion of $(a+b)^3$	knowledge 1) Pupil acquire the knowledge about expansion of $(a+b)^3$ understanding 2) Pupil develop an understanding of expansion formula $(a+b)^3$
2) Practice set 5.2	$(a+b)$ Application 3) Pupil applied their knowledge and understanding about familiar with expansion of $(a+b)^3$ Skill 4) Pupil develop the skill required to study expansion formula $(a+b)^3$

<u>Teaching Aids</u> :- Aeti chart showing formula
of $(a+b)^3$

<u>Reference</u> :- w.w.w. www. mathsisfun.com.
   Book

Content Analysis	objective specification
a+t	specific
Expansion of $(a+b)^3$	1) Pupil understanding
$(a+b)^3 = (a+b)(a+b) \div (a+b)$	term expansion
$= (a+b)(a+b)^2$	$(a+b)^3$ ⊙
$= a(a^2+2ab+B^2)$	
$+ b(a^2+2ab+b^2)$	1) knowledge
$= a^3+2a^2b+ab^2 +b +2ab^2+b^3$	pupil recognize the
$= a^3 + +$	term expansion of
$= a^3+3a^2b+3bb^2+b^3$	$(x+a)$ $(a+b)^3$ ⊙ pupil
$\therefore (a+b)^3 = a^3+3a^2b+3ab^2+b^3$	memorize term expansion of $(a+b)^3$
	2) Understanding
Let us study some examples pupil will also underr..	
Base on the above expansion	relationship between
formula:	expansion $(a+b)^3$
Ex $(x+3)^3$.	⊙ Pupil to express their view on expansion of $(a+b)^3$
we know that a+l	3) Application
$(a+b)^3 = a^3+3a^2b+3ab^2+b^3$	⊙ pupil will be able to
	use it in daily life.
In given example $a=x$	⊙ pupil judge their knowledge about expansion of $(a+b)^3$
and $b=3$	4) Skill
$\therefore (x+3)^3$	*pupil develop skill
$= x^3+3(x^2)\times(3)+3(x)(3)^2+(3)^3$	of observation of
$= x^3+9x^2+27x+27$	various problems
	of example and How
	to solve example
	of $(a+b)^3$.
	* The pupil handle
	ex solution of
	expansion of $(a+b)^3$
	Cearfully.

procedure:- yesterday we have learn about expansion of ~~bt~~ $(x+a)(x+b)$

statement of Aim: so today we will learn about expansion $(a+b)^3$

presentation:- Teacher explain formula $(a+b)^3$ using chart. Teacher say write down formula in your notebook. teacher solve examples of ~~(x+a)~~ $(x+a+b)^3$ student ask Question. teacher ex give to answer, teacher ask Question and say students to expand given example using formula $(a+b)^3$. students solve examples ~~given~~ teacher give home work student write down the home work.

conclusion:- so today we learn about expansion of $(a+b)^3 = a^3 + 3a^2b + 3ab^2 + b^3$

core element :- Inclucation of scientific temper. value :- scientific attitude

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Evaluation.
~~Generalization~~
~~Evaluation~~

1) tell ~~me~~ the expansion formula of ~~(a+b)^3~~ $(x+a)(x+b)$

Recapitulation.
1) $(k+4)^3$
~~Sol~~ expand it using formula of $(a+b)^3$

Application
1) $(101)^3$ Expand
2) $\left(x + \dfrac{1}{x}\right)^3$

Expand examples based on the above expansion formula.

3) **Assigment :**
1) $(7x + 8y)^3$

2) $(52)^3$

3) $(7x + 8y)^3$

4) $\left(2m + \dfrac{1}{5}\right)^3$

Black Board work

subject :- maths

Unit :- Expansion formulae

subunit :- expansion of $(a+b)^3$

Formula :-
$$(a+b)^3 = a^3 + 3a^2b + 3ab^2 + b^3$$

Ex1 $(k+4)^3$
= ~~Let~~ In given example.
$a = k$ $b = 4$
$$\therefore (k+4)^3 = (k)^3 + 3(k)^2(4) + ~~3x(k)x~~$$
$$+ 3x(k)x(4)^2 + (4)^3$$
$$= k^3 + 12k^2 + 48k + 64$$

Seen

2) $\left(x + \frac{1}{x}\right)^3$

$\therefore a = x$ $b = \frac{1}{x}$

$$\left(x + \frac{1}{x}\right)^3 = (x)^3 + 3 \times x^2 \times \frac{1}{x}$$
$$+ 3\left(\frac{1}{x}\right)^2 \times x + \left(\frac{1}{x}\right)^3$$
$$= x^3 + 3x + 3\frac{1}{x} + \frac{1}{x^3}$$
$$= x^3$$
$$\left(x + \frac{1}{x}\right)^3 = x^3 + 3x + \frac{3}{x} + \frac{1}{x^3}$$

* Introduction with questions
* B.B.W - Topic - expansion - E
  step by step with colourchalk
* explain Expansion of $(a+b)^3$ with examples explain examples step by step with the help of students
* content knowledge - good
* overall lesson - good
  keep it up

Smita

2/8/19

SAKET COLLEGE OF EDCUATION (B.Ed.)

(Affiliated to University of Mumbai)

Saket Vidyanagari, Chinchpada Road, Katemanivli,
Kalyan (East) - 421 306. Dist. Thane (MAH.)

LESSON NOTES

Name of the Pupil Teacher ...Jadhav Kirti Dayanand...

Practising School Anand Global school.

Roll No. 26

Std. 8th Div. ......

Subject ...... Maths

Date 2/08/19

Lesson No. (General) (03)

Time - From 8:45 To 9:15

Lesson No. (In the method) 03

Topic Expansion formulae

Subtopic :- Expansion of $(a+b)^3$

Previous knowledge of the class

students have previous knowledge about constan, variable, monomial, binomial algebric expansion.

Teaching Points	General Objectives
Te 1) II Expansion of $(a+b)^3$ 2) practice set 5.2	1) Knowledge :- Pupil acquire the knowledge about expansion of $(a+b)^3$ 2) Understanding :- Pupil develop an understanding of expansion formula $(a+b)^3$ 3) Application :- Pupil applied their knowledge and understanding about familiar with expansion of $(a+b)^3$ 4) Skill :- Pupil develop the skill required to study expansion formula $(a+b)^3$

Teaching Aids :- chart showing, expansion formula of $(a+b)^3$

Reference Aids :- Book w.w.w. quara.com

Content Analysis	Objective : Specifications
Expansion of $(a+b)^3$	specific: pupil understanding
$(a+b)^3 = (a+b)(a+b)(a+b)$	term expansion $(a+b)^3$
$= (a+b)(a+b)^2$	
$= (a+b)(a^2+2ab+b^2)+b$	knowledge: ① pupil recognize
$= a(a+2ab+b^2)+b(a^2+2ab+b^2)$	the term expansion of
$= a^3+2a^2b+ab^2+a^2b+2ab^2+b^3$	$(a+b)^3$ ② pupil memorize
$= a^3+3a^2b+3ab^2+b^3$	term expansion of $(a+b)^3$
$\therefore (a+b)^3 = a^3+3a^2b+3ab^2$	
$\qquad +b^3$	2) Understanding :-
	① pupil will also understanding
Let us study same	relationship between expansio
example Base on the	expansion $(a+b)^3$
above expansion formula	② pupil express their view
	on expansion of $(a+b)^3$
Ex1) $\quad (x+3)^2$	
We know that	3) Application:-
$(a+b)^3 = a^3+3a^2b+3ab^2$	1) pupil will be able to
$\qquad +b^3$	use it in daily life.
In given example	② pupil Judge their
$\quad a=x$ and $b=3$	knowledge about expansion
$\therefore (x+3)^2$	of $(a+b)^3$
$= x^3+3(x^2)\times(3)+3(x)(3)^2$	
$\quad +(3)^3$	skill
$= x^3+9x^2+27x+27$	① pupil develop skill of
	observation of various
	example and How to solve
	example of $(a+b)^3$
	② pt The pupil handle.
	solution of expansion of
	$(a+b)^3$ cearfully.

Procedure	Evaluation
Introduction :- yesterday we have learn about expansion of $(x+a)(x+b)$	**Generalization :-** 1) tell me the expansion formula of $(x+a)(x+b)$
Statement of Aim :- so today we will learn about expansion of $(a+b)^3$	
Presentation :- Teacher explain formula $(a+b)^3$ using chart. Teacher say write down formula in your note book. teacher solve examples of $(a+b)^3$ student ask Question to teacher. teacher give to answer. teacher ask Question and say students to expand given example using formula. $(a+b)^3$. students solve example teacher give home work student write down the home work. students note down home work.	**Recapitulation :-** 1) $(k+4)^3$ expand it using formula $(a+b)^3$. **Application :-** 1) $(101)^3$ 2) $(x+\frac{1}{r})$ Expand examples base on the above expansion formula.
Conclusion :- so, today we learn about expansion of $(a+b)^3 = a^3 + 3a^2b + 3ab^2 + b^3$	
Core Elements :- Inclucation of scientific temper	**Assignment :-** 1) $(7x+8y)^3$ 2) $(52)^3$ 3) - 3) $(2m+\frac{1}{5})^3$ Expand it.
Values :- scientific attitude.	

BLACK BOARD WORK

Jottins Diagram :-

Summary :-

Sub :- maths

unit :- Expansion formulae

subunit :- expansion of $(a+b)^3$

Formula :

$(a+b)^3 = a^3 + 3a^2b + 3ab^2 + b^3$

Ex.1. $(k+4)^3$

let In given example.

$a = 4$ $b = 4$

$\therefore (k+4)^3 = (k)^3 + 3(k)^2 \times 4$
$\qquad\qquad + 3 \times (k) \times (4)^2 + (4)^3$

$\therefore (k+4)^3 = k^3 + 12k^2 + 48k + 64$

Ex. 2) $(x+\frac{1}{x})^3$

$a = x$ $b = \frac{1}{x}$

$(x+\frac{1}{x})^3 = x^3 + 3 \times (x)^2 \times (\frac{1}{x})$
$\qquad\qquad + 3(\frac{1}{x})^2 \times (x) + (\frac{1}{x})^3$

$= x^3 + 3x + \frac{3}{x} + \frac{1}{x^3}$

$(x+\frac{1}{x})^3 = x^3 + 3x + \frac{3}{x} + \frac{1}{x^3}$.

Remarks Items

.... Set induction
.... Model Reading
.... Model Recitation
.... Objective Qns.
.... Silent Reading
.... Narrations
.... Explanations
.... Illustrations
.... Questions
.... Use of teaching aids
.... Class Response
.... Class Participation
.... Black Board work
.... Experiments
.... Demonstrations
.... Specimen observation
.... Dramantization
.... Student's reading / recitation / drill
.... Closure
.... Teacher's knowledge of content
.... Teacher's preparation of lesson
.... Method of teaching
.... Interest created
.... Class control

Seen the remarks of the supervisor

Guiding Professor

Suggestions :-

* Introduction with questions

* B.B.W- step by step

* explain problem step by step

* Overall lesson good

General Remarks

Supervising Professor

Name of the pupil Teacher	practising school
Jadhav Kirti Dayanand	Anand Global Kalyan East
Roll No:- 26	
Subject:- maths	Std:- VIII DIV:-
Lesson No:-General (04)	
Lesson No:-(In method) 04	Date:-
SubTopic:-Expansion of $(a-b)^3$	Time- 7/8/19
Topic:-Expansion formulae.	

Previous knowledge of the class:-
Students have previous knowledge about, constant
variable simple binomial, monomial algebric
expansion.

Teaching Point	General objective
	Knowledge
1) AG Expansion of	1) Pupil acquire the knowledge
E $(a-b)^3$	about expansion of $(a-b)^3$
	Apt understanding.
	2) Pupil develop an understanding
2) practice set 5.3	of expansion formula $(a-b)^3$
	Application
	3) pupil applied their knowledge
	and understanding about
	familiar with expansion of
	$(a-b)^3$
	skill
	4) pupil develop the skill
	exrequired to study
	expansion formula.
	$(x+a)(a-b)^3$

Teaching Aids:- chart showing Expansion
of $(a-b)^3$

Reference:- www. quora.com

Content Analysis	objective specification specific

Content Analysis

Expansion of $(a-b)^3$

$\therefore (a-b)^3 = (a-b)(a-b)(a-b)$

$= (a-b)(a^2 - 2ab + b^2)$

$= a(a^2 - 2ab + b^2) - b(a^2 - 2ab + b^2)$

$= a^3 - 2a^2b + ab^2 - a^2b + 2ab^2 - b^3$

$= a^3 - 3a^2b + 3ab^2 - b^3$

$(a-b)^3 = a^3 - 3a^2b + 3ab^2 - b^3$

1) Expand $(x-2)^3$

we know that

$(a-b)^3 = a^3 - 3a^2b + 3ab^2 - b^3$

Here taking $a=x$ $b=2$

$(x-2)^3 \equiv$

$= (x)^3 - 3 \times x^2 \times 2 + 3 \times x \times (2)^2 - (2)^3$

$= x^3 - 6x^2 + 12x - 8$

simplify

1) $(p+q)^3 + (p-q)^3$

$= p^3 + 3p^2q + 3pq^2 + q^3$
$+ p^3 - 3p^2q + 3pq^2 - q^3$

$= 2p^3 + 6pq^2$

objective specification specific

Pupil understanding term expansion of $(a-b)^3$ ② pupil memorize term expansion of $(a-b)^3$

1) Knowledge

pupil recognize the term expansion of $(a-b)^3$ ② pupil express their wiew on factors of quadratic $(a-b)^3$

3) Application

① pupil will be able to use it in daily life. ② pupil jude their knowledge about expansion of $(a-b)^3$

4) Skill

① pupil develop skill of observation of various problems example and How to solve example of $(a-b)^3$

② pupil handale solution of expansion of a $(a-b)^3$ cearfully.

procedure:-

Introduction:- la yesterday we have learnt about expansion of bino $(a+b)^3$

statement of Aim:- so today we will learn about expansion formula of $(a-b)^3$.

presentation:- Teacher explain formula $(a+b)^3$ using chart.
Teacher say write down formula in your notebook teacher solve examples of $(a+b)^3$.
Student ask question to teacher.
teacher give answer.
teacher solve examples of $(a-b)^2$. students write down in notebook. teacher ask Questions.
student give answer.
teacher give home work.

Conclusion:- so today we learn about expansion formula of $(a-b)^3$
$= a^3 - 3a^2b + 3ab^2 - b^3$

core element:- Inculcation of scientific temper.
value: Scientific attitude.

Evaluation
Generalization.
tell me the expansion formula of $(a-b)^3$

Recapitulation
1) $(2m-5)^3$
2) $\left(2P - \dfrac{1}{2P}\right)^3$

Expand given Example

Application
1) simplyfy following.
$(2a+b)^3 - (2a-b)^3$
2) expand the given example.
$(198)^3$

Assigment:-
1) $(4-P)^3$ Expand
2) $(58)^3$ Expand.
3) $\left(\dfrac{x}{3} - \dfrac{x^3}{x}\right)^3$ Expand it
4) simplify.
i) $(4a-3)^3(4a+3)^3$
ii) $(5x-7y)^3(5x+7y^3)$

Black Board work

Subject :- maths   Date

std:-

Subunit :- Expansion formula

subunit: Expansion of $(a-b)^3$.

Formula-

We know that

$$(a-b)^3 = a^3 - 3a^2b + 3ab - b^3$$

⮕ Expand

1) $(2m-5)^3$

$$\Rightarrow (2m-5)^3 = (2m)^3 - 3 \times (2m)^2 \times 5 + 3 \times 2m \times (5)^2 - (5)^3$$

$$= 8m^3 - 60m^2 + 150m - 125$$

2) simplify.

$$(2a+3)^3 - (2a-b)^3$$

$$= (2a)^3 + b^3 + 3 \times (2a)^2 \times b + 3 \times 2a \times b$$

$$- \{(2a)^3 - (b)^3 - 3 \times (2a)^2 \times b + 3 \times 2a \times (b)^3\}$$

$$= 8a^3 + b^3 + 12a^2b + 6ab^2 - 8a^3 + b^3 + 12a^2b - 6ab^2$$

$$= 2b^3 + 24a^2b$$

7/08/2019

① Set induction was done as per the plan
② explaination was Good.
③ voice Audible to the whole class.
④ Teaching Aids used
⑤ Interrested (remereted in pupils
⑥ Example were more relevant
⑦ Evaluation was done v. well.
⑧ Dont Accept wrong answers.
⑨ B.B work was Good.
⑩ class control was Good
⑪ Asignment was Given
⑫ Over all lesson was Good

SAKET GYANPEETH'S
SAKET COLLEGE OF EDCUATION (B.Ed.)
(Affiliated to University of Mumbai)

Saket Vidyanagari, Chinchpada Road, Katemanivli,
Kalyan (East) - 421 306. Dist. Thane (MAH.)

LESSON NOTES

Name of the Pupil Teacher ....
Jadhav Kirti Dayanand

Roll No. 26

Subject .... Maths

Lesson No. (General) (04)

Lesson No. (In the method)

Topic Expansion of $(a-b)^3$

Stth Topic :- Expansion formula

Practising School ... Aanand
Global school

Std. 8th   Div. —

Date 7/8/19

Time - From 8.45 To 9:15

Previous knowledge of the class :

Students have previous knowledge about constant, variable, simple binomial, monomial algebric expansion

Teaching Points	General Objectives
1) Expansion of $(a-b)^3$ 2) Practice set 5.3	1) Knowledge :- pupil acquire the knowledge about expansion of $(a-b)^3$ 2) Understanding :- pupil develop an understanding of expansion formula $(a-b)^3$ 3) Application :- pupil applied their knowledge and understanding about familiar with expansion of $(a-b)^3$ 4) Skill :- pupil develop the skill required to study expansion formula $(a-b)^3$

Teaching Aids :- Chart showing Expansion of $(a-b)^3$

Reference Aids :- Book   www.com quara.com

Content Analysis	Objective : Specifications
	1) Knowledge
Expansion of $(a-b)^3$	① pupil recognize the term
	expansion of $(a-b)^3$
$\therefore (a-b)^3 = (a-b)(a-b)(a-b)$	⑪ pupile memorise term
$= (a-b)(a-b)^2$	expansion of $(a-b)^3$
$= (a-b)(a^2-2ab+b^2)$	
$= a(a^2-2ab+b^2) -$	understanding
$\quad -b(a^2-2ab+b^2)$	① pupil will be also
$= a^3 -2a^2b+ab^2 -a^2b$	understanding relationship
$\quad +2ab^2+b^3$	between expansion of $(a-b)^3$
$= a^3-3a^2b+3ab^2-b^3$	(2) pupil express their view
$\therefore (a-b)^3 = a^3-3a^2b+3ab^2-b^3$	on expansion of $(a-b)^3$
1) Expand $(x-2)^3$	Application
We know that	① pupil will be able to
$(a-b)^3 = a^3-3a^2b+3ab^2-b^3$	use it in daily life
Here taking $a=x$ $b=2$	⑪ pupil judge their
$\therefore (x-2)^2 $	knowledge about expansion
$= (x^3)-3(x^2)(2)+3(x)(2)^2-(2)^3$	of $(a-b)^3$
$= x^3 -$	
	Skill
	① pupil develop skill of
	observation of various
	example and How to
	solve example of
	$(a-b)^3$
	⑪ pupil handale solution
	of expansion of
	$(a-b)^3$ cearfully.

Procedure	Evaluation
Introduction :- yesterday we have learn about expansion of $(a+b)^3$ $= a^3 + 3a^2b + 3ab^2 + b^3$	**Generalization** :- tell me the expansion formula of $(a-b)^3$
Statement of Aim :- So today we will learn about explansion of $(a-b)^3$	
Presentation :- Teacher explain formula $(a-b)^3$ using chart. Teacher say write down in your note book teacher solve. examples of $(a-b)^3$. Student ask question to teacher teacher give answer. teacher solve examples of $(a-b)^3$ students write. in note book. teacher ask questions. Student give answer. teacher give home work. students note down home work.	**Recapitulation** :- 1) $(2m-5)^3$ 2) $(2p - \frac{1}{2p})^3$ ExPand given Example.
	Application :- 1) simplyfy following. $(2a+b)^3 - (2a-b)^3$ 2) Expand the given example $(198)^3$
Conclusion :- So today we learn about exfansion of $(a-b)^3 = a^3 - 3a^2b + 3ab^2 - b^3$	
Core Elements :- Inclucation of scientific temper.	**Assignment** :- Expand it 1) $(4-p)^3$ 2) $(5a)^3$ 3) $(\frac{2}{3} - \frac{b^3}{2})^3$
Values :- scientific attitude.	

BLACK BOARD WORK

Jottins Diagram :-	Summary :-

subject:- maths
Unit:-Expansion formulae
subunit:-Expansion of $(a-b)^3$

We know that
$(a-b)^3 = a^3 - 3a^2 b + 3ab^2 - b^3$

Expand :-

1) $(2m-5)^3 = (2m)^3 - 3 \times 2m \times 5$
$+ 3 \times 2m \times (5)^2 - (5)^3$

$= 8m^3 - 60m^2 + 150m - 125$

2) simplify:

$(2a+3)^3 - (2a-b)^3$

$= [(2a)^3 + b^3 + 3 \times (2a)^2 \times b + 3$
$+ 3 \times 2a \times b]$
$- [(2a)^3 - (b)^3 - 3 \times (2a)^2 \times b$
$+ 3 \times 2a \times (b)^3]$

$= 8a^3 + b^3 + 12a^2 b + 6ab^2$
$- 8a^3 + b^3 + 12a^2 b - 6ab$

$= 2b^3 + 24a^2 b$

Remarks Items

- ✓ Set induction
- Model Reading
- Model Recitation
- Objective Qns.
- Silent Reading
- Narrations
- ✓ Explanations
- Illustrations
- ✓ Questions
- ✓ Use of teaching aids
- ✓ Class Response
- ✓ Class Participation
- ✓ Black Board work
- Experiments
- Demonstrations
- Specimen observation
- Dramantization
- Student's reading / recitation / drill
- Closure
- ✓ Teacher's knowledge of content
- ✓ Teacher's preparation of lesson
- ✓ Method of teaching
- ✓ Interest created
- ✓ Class control

Suggestions :- ① Set induction was done as per plan
② Explaination good head
③ voice Audible to the whole cla
④ Teaching Aids used
⑤ interested (sene rated in pupil)
⑥ Example were more Relevant
⑦ evaluation was done v. well
⑧ Dont Accept chorus Answers
⑨ B.B work was Good
⑩ class content was Good
⑪ Asignment was given

General Remarks ① Overall lesn on was Good.

Seen the remarks of the supervisor

Guiding Professor

Supervising Professor — 7/8/2014

Name of the pupil Teacher   practising school

Jadhav Kirti Dayanand   Anand Global kalyan

Roll No :- 26   East

Subject :- maths

Lesson No :- General 05   std. VIII   Div :- –

Lesson No :- In method 05   Date :

Topic :- Expansion formulae   Time :- 8:45 to 9:15

subtopic :- expansion of

$(a-b)^3$ $(a+b+c)^3$

previous knowledge of the class :-

students have previous knowledge about constant
Variable, simple binomial, monomial algebraic
expansion.

Teaching Point	General Objectives.
1) Expansion of $(a+b+c)^3$	**Knowledge:** 1) Pupil acquire the knowledge about expansion of $(a+b+c)^2$
2)	
2) practice set 5.4	**understanding.** 2) Pupil develop an understanding of expansion formula $(a+b+c)^2$
	Application. 3) Pupil applied their knowledge and understanding about familiar with expansion of $(a+b+c)^2$
	Skill 4) Pupil develop the skill require to study expansion formula $(a+b+c)^2$

Teaching Aids :- A chart showing for expansion
formula of $(a+b+c)^3$

Reference :- www. math fun. com
Book

Content : Analysis.	objective specification

Content : Analysis.

Expansion of $(a+b+c)^2$

$(a+b+c)^2 = (a+b+c)^2 (a+b+c)$

$= a(a+b+c) + b(a+b+c) + c(a+b+c)$ ✓

$= a^2 + ab + ac + ba + b^2 + bc$
$\quad + ca + bc + c^2$

$= a^2 + b^2 + c^2 + 2ab + 2bc$
$\quad + 2ac.$

$\therefore (a+b+c)^2 = a^2 + b^2 + c^2 + 2ab + 2bc + 2ac$

Ex1> Expand $(p+q+3)^2$

$= p^2 + q^2 + (3)^2 + 2 \times p \times q + 2 \times q \times 3$
$\quad + 2 \times p \times 3$

$= p^2 + q^2 + 9 + 2pq + 6q + 6p$

$= p2 + q^2 + 2pq + 6q + 6p + 9$

objective specification

1) Pupil understanding term expansion of $(a+b+c)^2$

1) Knowledge
   pupil recognize the term expansion of $(a+b+c)^2$ ① pupil memorise term expansion of $(a+b+c)^2$

2> Understanding.
   Pupil will also understanding relationship between expansion of $(a+b+c)^2$
   ① pupil express their view on expansion of $(a+b+c)^2$

3> Application:-
   Pupil will be able to use it in daily life.
   ① pupil judge their knowledge about expansion of $(a+b+c)^2$

4> Skill
   Pupil develop skill of observation of various example and how to solve examples of $(a+b+c)^2$
   ① pupil handle solution of facts expansion of $(a+b+c)^2$ cearfully.

procedure :-	Evaluation.
Introduction :- last yesterday	1) tell me the
we have learn about	expansion formula of
expansion of $(a-b)^3$	$(a+b+c)$ $(a-b)^3$
Statement of Aim :- so today	Recapitulation
we will learn about	Expand the given
expansion formula $(a+b+c)^2$	example
	1) $(2p+q+5)^2$
Presentation :- Teacher explain	
formula by help of chart.	
student ask questions	Application
teacher given answer.	simplify
teacher solve example of	$(3k-4r-2m)^2$
$(a+b+c)^2$ on Black Board.	$-(3k-4r-2m)^2$
student copy the example	
in note book.	
Teacher give examples	Assigment:
of students	1) $(3r+4y-5P)^2$
student solve examples.	
teacher give home work.	2) $(7m+3n-4k)^2$
	Expand it.
conclusion :- so today we	
learn about expansion	
formula of $(a+b+c)^2 =$	
$a^2+b^2+c^2+2ab+2bc+2ac$.	
core element :- Inclucation	
of scientific temper.	
value :- scientific attitude.	

Date
Subject: maths   Std. 8th.
Unit:- Expansion formulae
subunit:- expansion of $(a+b+c)^2$

$(2p+q+5)^3$ Expand: Formula.

$= (2p)^2 + (q)^2 + (5)^2$ $(a+b+c)^2$

$+ 2(2p \times q) + 2(q \times 5)$ $= a^2 + b^2 + c^2 + 2pq + 2q$

$+ 2(2p \times 5)$ $+ 2ab + 2bc + 2ac$

$= 4p^2 + q^2 + 25$

$+ 4pq + 10q + 20p$

$= 4p^2 + q^2 + 4pq + 20p + 10q + 25$

7/08/2019

LESSON NOTES

Name of the Pupil Teacher ... Jadhav Kirti Dayanand

Roll No. 26

Subject ... Maths

Lesson No. (General) (05)

Lesson No. (In the method) 05

Topic ExpanPansion formulae

SubTopic :- expansion of $(a+b+c)^3$

Practising School ... Anand Global kalyan East

Std. ... VIII Div. ... —

Date 9/8/19

Time - From 8:45 To 9:15

Previous knowledge of the class

Students have previous knowledge about constant variable simple binomial, monomial algebraic expansion

Teaching Points	General Objectives
1) Expansion of $(a+b+c)^2$ 2) Practice set 5.4	1) knowledge':- pupil acquire the knowledge about expansion of $(a+b+c)^2$ 2) understanding':- pupil develop an understanding of expansion formula $(a+b+c)^2$ 3) pupil applied their knowledge and understanding about familiar with expansion of $(a+b+c)^2$ 4) skill':- pupil develop the skill required to study expansion formula $(a+b+c)^2$.

Teaching Aids :- Chart showing expansion formulae of $(a+b+c)^3$

Reference Aids Book :- www.maths fun.com

Content Analysis	Objective : Specifications
Expansion of $(a+b+c)^2$ $(a+b+c)^2 = (a+b+c)(a+b+c)$ $= a(a+b+c) + b(a+b+c)$ $\quad + c(a+b+c)$ $= a^2 + ab + ac + ba + b^2 + bc$ $\quad + ca + bc + c^2$ $= a^2 + b^2 + c^2 + 2ab$ $\quad + 2bc + ac.$ $\therefore (a+b+c)^2 = a^2 + b + c^2 + 2ac$ $\quad + 2bc + 2ac.$ Ex 1) Expand $(p+q+3)^2$ $= p^2 + q^2 + (3)^2 + 2 \times p \times q$ $\quad + 2 \times q \times 3 + 2 \times p \times 3$ $= p^2 + q^2 + 9 + 2pq + 6q$ $\quad + 6p$ $= p^2 + q^2 + 9 + 2pq + 6q$ $\quad + 6p + 9$	① pupil understanding term expansion of $(a+b+c)^2$ knowledge ① pupil recognize the term expansion of $(a+b+c)^2$ ⑪ pupil memorise term expansion of $(a+b+c)^2$. Understanding. ① pupil will also underst- nding relationship between expansion of $(a+b+c)^2$ ⑪ pupil express their view on expansion of $(a+b+c)^2$. Application. ① pupil will be able to use it in daily life ⑪ pupil judge their knowledge about expansion of $(a+b+c)^2$ Skill ① pupil develop skill of observation of various example and How to solve examples of $(a+b+c)^2$ ⑪ pupil handdle solution of expansion of $(a+b+c)^2$ cearfully.

Procedure	Evaluation
Introduction :- yesterday we have learn about expansion of $(a-b)^3$	**Generalization :-** tell me the expansion formula of $(a-b)^3$
Statement of Aim :- So today we will learn about expansion formula $(a+b+c)^2$	
Presentation :- ① Teacher explain formula by help of chart.	
② Student ask qestion to teacher.	**Recapitulation :-**
③ teacher give answer to student	Expand the
④ teacher solve example of $(a+b+c)^2$ on Black Board.	given example. 1) $(2p+q+5)^2$
⑤ student copy the example in note book.	
⑥ Teacher give examples of students.	**Application :-**
⑦ student solve examples	simplify.
⑧ student ~~solve~~ Teacher give home work.	$(3k-4r-2m)^2$ $-(3k-4r-2m)^2$
⑨ students write down home work.	
conclusions :- so, today we learn about expansion formula	
Conclusion :- so of $(a+b+c)^2 =$ $a^2+b^2+c^2+2ab+2bc+2ac$	
Core Elements :- Inclucation of scientific temper.	**Assignment :-**
Values :- scientific attitude	1) $(3x+4y-5p)^2$ 2) $(7m-3n-4k)^2$

BLACK BOARD WORK

Jottins Diagram :-	Summary :-

Summary :-

subject:- maths

Unit: Expansion formulae

subunit:- expansion of $(a+b+c)^2$

Ex· 1) $(2p+q+5)^3$ Expand

$= (2p)^2 + (q)^2 + (5)^2 + 2\times(2p\times q)$
$+ 2(q\times5) + 2(2p\times5)$

$= 4p^2 + q^2 + 25 + 4pq$
$+ 10q + 20p$

$= 4p^2 + q^2 + 4pq + 20p + 10q + 25$

Formula.

$(a+b+c)^2 = a^2 + b^2 + c^2 + 2ab$
$+ 2bc + 2ac.$

Remarks Items

- ‿ Set induction
- .... Model Reading
- .... Model Recitation
- .... Objective Qns.
- .... Silent Reading
- .... Narrations
- .... Explanations
- .... Illustrations
- .... Questions
- ‿ Use of teaching aids
- ‿ Class Response
- ‿ Class Participation
- ‿ Black Board work
- .... Experiments
- .... Demonstrations
- .... Specimen observation
- .... Dramantization
- .... Student's reading / recitation / drill
- .... Closure
- ‿ Teacher's knowledge of content
- ‿ Teacher's preparation of lesson
- .... Method of teaching
- ‿ Interest created
- ‿ Class control

Seen the remarks of the supervisor

Guiding Professor

Suggestions :-

— Black board work done.
— Coloured chalk used.
— Lesson explained with examples.
— Teaching aid effectively used.
— Class responded & Participated
— Black board work should be enhanced.
— Generalization done.

General Remarks

Overall lesson is v good.

Supervising Professor

7/8/19

Name of the pupil teacher	practising School
Jadhav Kirti Dayanand	Anand Global
Roll No :- 26	kalyan East.
subject :- maths	
Lesson No: General (07)	std :- VIII DIV :- —
TOPIC :- Factorisation of	Date :- 2/
Algebraic expression.	Time :- 8:45 to 9:15
Subtopic :- Factors of	
quadratic trinomial	

previous knowledge of class :-

Students have previous knowledge of monomial and binomial expression.

Teaching Point	General objectives:
1) Factors of quadratic trinomials.	① Knowledge :- Pupil acquire the knowledge about factors of quadratic trinomial
2) Practice set 6.1	② Understanding :- pupil develop an understanding of factors of a quadratic trinomial
	③ Application :- pupil applied their knowledge and understanding about familiar with factors of quadratic trinomial
	④ skill :- pupil develop the skill required to study factors of quadratic trinomials.

Teaching Aids :- chart showing.
ep - of Quad ———

Reference :-
    Book

Reference. w.w.w. maths fun.com

Content Analysis

Factors of quadratic trinomials.

An expression of the form ax^2+bx+c is called a quadratic trinomial.

we know that $(x+a)(x+b)$
$=x^2+(a+b)x+ab$

∴ the factors of
$x^2+(a+b)x+ab$ are
$(x+a)(x+b)$

To find the factors of
x^2+5x+6 by comparing
it with $x^2+(a+b)x+ab$
we get $a+b=5$ $ab=6$
so let us find factors
of 6 whose sume is 5
let us find the factors
of 6 whose Them
writing the trinomial in
the form $x^2+(a+b)x+ab$
find its factors.
$x^2+5x+6=x^2+(3+2)x+3\times2$
$x^2+(a+b)x+a\times b$
$=x^2+3x+2x+2\times3$
∴ mutiply 3+2 by x make
two groups of four term
obtained.
$=x(x+3)+2(x+3)$
$=(x+2)(x+3)$

Objective specification.

Knowledge:-

① pupil recognize the term factors of quadratic trinomial
② pupil rememorize term factors of quadratic trinomial

develop an
Understanding. and understanding
① pupil will also relationship between factors of quadratic trinomials.
② pupil express their view on factors of quadratic trinomials.

Application.
① pupil will be able to use in daily life ✓
② pupil judge their knowledge about factors of quadratic trinomials.

skill.
① pupil develop skill of observation of various example of factors of quadratic trinomials.
② pupil handale solution of factors of quadratic trinomials cearfully.

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procedure:- Yesterday we have learn about the factorising Algebraic expressions of $ax+ay$ & a^2-b^2. changes

Statement of Aim :- so today we will learn about factors of quadratic (trinomial.)

presentation:-
① Teacher explain formula for ~~factors~~ factors of quadratic trinomials.
② Teacher say write down formula in your note book.
③ Teacher solve examples of a^3+b^3 on
④ Teacher show chart paper. and explain the examples of factors of quadratic trinomials.
⑤ Student ask questions.
⑥ Teachers give answer.
⑦ teacher give example and say solve to 5 students solve the examples of factors of quadratic trinomial. teacher give home work.

Conclusion:- so today we learn about factors of quadratic trinomials.

Core element:- Inclucation of scientific temper.
value:- sicentific attitude.

Evaluation
Generalization
① tell me the expression of factors of $4x^2y+8xy^2$.

Recapitulation:
① Let us solve some examples using factors quadratic trinomial.
1) x^2+9x+8
2) $y^2+24y+144$

Application.
1) Find the factors of a) $5y^2+5y-10$
2) Factorise.
$m^3-23m+120$.

Assignment:-
Factorise.
1) $2x^2+x-45$
2) $20x^2-26+8$
3) $P^2-7P-44$

Subjet :- maths.
Unit : Factorisation of Algebraic expressions.
~~Expansion formula~~.
Sub : Factors of a quadratic trinomials

1) Factorise

$2x^2 + 5x - 18$

$= 2x^2 + 9x - 4x - 18$

$= x(2x+9) - 2(2x+9)$

$= (2x+9)(x-2)$

③ Factorise.

$x^2 - 10x + 21$

$= x^2 - 7x - 3x + 21$

$= x(x-7) - 3(x-7)$

$= (x-7)(x-3)$

Name of the pupil teacher Jadhav Kirti Dayanand Roll No:- 26 Subject:-maths Lesson No:- 06 Topic:- Factorisation of Algebraic expression subtopic:-Factors of quadratic trinomial.	practising school Anand Global school Std:- VIII Div:- Date Time:-

Previous knowledge of class:- students have previous knowledge of monomial and binomial expressions.

Teaching Point	General objectives
1) Factors of quadratic trinomial. 2) practice set 6.1	① Knowledge:- pupil acquire the knowledge about factors of quadratic trinomial. ② Understanding:-pupil develop an understanding of factors of quadratic trinomial. ③ Application:- pupil applied their knowledge and understanding about familiar with factors of quadratic trinomials. ④ skill - pupil develop the skill required to study. factors of quadratic trinomial.

Teaching Aids:- chart showing examples of quadratic trinomial.

Refference. w.w.w. maths fun.com

Content Analysis	Objective specification
Factors of quadratic trinomials.	Knowledge
	① pupil recognize the term factors of quadratic trinomials.
An expression of the form ax^2+bx+c is called a quadratic trinomial.	② pupil memorize term factors of quadratic trinomial.
we know that $(x+a)(x+b)$ $=x^2 6+(a+b)x+ab$	Understanding.
∴ the factors of $x^2+(a+b)x+ab$ are $(x+a)(x+b)$	① pupil will also develops understanding relationship between factors of quadratic trinomials.
	Application
To find the factors of x^2+5x+6 by comparing it with $x^2+(a+b)x+ab$ it with x^2 we get $a+b=5$, $ab=6$ So Let us find factors of 6 whose sume is 5	① pupil will be able to use in daily life ② pupil judge their knowledge about factors of quadratic trinomials
writing the trinomial in the form $x^2+(a+b)x+ab$ find its factors	Skill ① pupil develop skill of observation of various example of factors of quadratic trinomials.
$x^2+5x+6=x^2+(2+3)x+3\times2$ $\cdots x^2+(a+b)x+axb$ $=x^2+3x+2x+2\times3$ $\cdots$ multiply $3+2$ by x make two group of four term obtained $=x(x+3)+2(x+3)$ $=(x+2)(x+3)$	② pupil handale solution of factors of quadratic trinomials cearfully.

Procedure:- Factoring

Introduction:- A quadratic trinomial is an expression of the form $x^2 + bx + c$. where x is variable b a,b,c are nonzero

Statement of Aim:- So today we will learn about factors of quadratic factorisation of Algebraic expression.

presentation:-
① Teacher explain formula fo factors of quadratic trinomials.
② Teacher say write down formula in your note book.
③ Teacher solve examples of quadratic trinomial.
④ Teacher show a chart paper and explain the examples of factors of quadratic trinomials.
⑤ Student ask quetions
⑥ Teacher give answer.
⑦ and say to Students solve the example of factors of quadratic trinomial.
⑧ Teacher give homework.

conclusion:- so today we learn about factors of quadratic trinomials

Core element:- Inclucation of scientific temper
value:- scientific attitude.

Evaluation.
① tell me the factors
Generalization
① tell me the factors of $4x^2y$ & $8x^2y$

Recapitulation
① Let us solve some examples using factors of quadratic trinomial
1) $x^2 + 9x + 18$
2) $y^2 + 24y + 144$

Application.
① Find the factors of $5xy^2 + 5y - 10$
2) Factorise $m^3 - 23m + 120$

Assigment

Factorise
1) $2x^2 + x - 45$
2) $20x^2 - 26x + 8$
3) $p^2 - 7p - 44$

Black Board work.

Subject :- maths
Unit :- Factorisation of Algebraic expression.
subunit :- Factors of quadratic trinomials

1) Factorise.	② Factorise
$2x^2 + 5x - 18$	$x^2 - 10x + 21$
$= 2x^2 + 9x - 4x - 18$	$= x^2 - 7x - 3x + 21$
$= x(2x+9) - 2(2x+9)$	$= x(x-7) - 3(x-7)$
$= (2x+9)(x-2)$	$= (x-7)(x-3)$

* Introduction with questions
* B.B.W - divide B.B. write in straight line

* Explain factors of quadratic trinomials step by step.

*

Smita 8.

SAKET GYANPEETH'S

SAKET COLLEGE OF EDUCATION (B.Ed.)

(Affiliated to University of Mumbai)

Saket Vidyanagari, Chinchpada Road, Katemanivli,
Kalyan (East) - 421 306. Dist. Thane (MAH.)

LESSON NOTES

Name of the Pupil Teacher ....
...Jadhav kirti Dayanand...........................

Roll No. | 26 |

Subject .....Maths......................................

Lesson No. (General) (6)

Lesson No. (In the method)

Topic Factorisation of Algebraic
expression
subtopic:- Factors of quadratic
                                    trinomial.

Practising School ....practi...................
Anand Global school...........
Std. ......8th...... Div. ...↑...
Date .19/8/19.....
Time - From 8.45 To 9.15

Previous knowledge of the class

students have previous knowledge of monomial
binomial expression.

Teaching Points	General Objectives
1) Factors of quadratic trinomial 2) Practice set 6.1	1) Knowledge:- Pupil acquire the knowledge about factors of quadratic trinomial. 2) Understanding:- The pupil develop an understanding of factors of quadratic trinomial. 3) Application:- pupil applied their knowledge and understanding about familiar with factors of quadratic trinomial. 4) skill:- pupil develop the skill required to study factors of quadratic trinomial.

Teaching Aids :- chart showing examples of quadratic
                        trinomials.

Reference Aids :- Book
                        wiwi mathg.com

Content Analysis	Objective : Specifications
Factors of quadratic trinomials.	knowledge
An expression of the form ax^2+bx+c is called quadratic trinomial	① The pupil recognize the term factors of quadratic trinomials.
we know that $(x+a)(x+b)$ $=x^2+(a+b)x+ab$	② pupil memorize term factors of quadratic trinomial.
∴ the factors of $x^2+(a+b)x+ab$ are $(x+a)(x+b)$.	Understanding :- ① The pupil will also develop 6 understanding relationship between factors of quadratic trinomials.
To find the factors of x^2+5x+6 by comparing it with $x^2+(a+b)x+ab$ we get $ab=6$ $(a+b)=5$ so let us find factors of 6 whose sum is 5	*Application ① The pupil will be able to use in daily life ② pupil judge their knowledge about factors of quadratic trinomials.
writing the trinomial in the form of $x^2+(a+b)x+ab$ find its factors. $x^2+5x+6=x^2+6\ 2+5$ $=x^2+(2+3)x+2\times3$ ∴ $x^2+(a+b)x+a\times b$ $=x^2+3x+2x+3\times2$ ∴ multiply $3+2$ by x. make two group of four term obtained $=x(x+3)+2(x+3)$ $=(x+2)(x+3)$	*Skill ① pupil develop skill of observation of various example of factors of quadratic trinomials ② The pupil handale solution of factors of quadratic trinomials ceartfully.

Procedure	Evaluation
Introduction :- A quadratic trinomial is an expression of the form x^2+bx+c where x is variable & a,b,c are non-zero, or a is leading coefficient, b is linear coefficient, & c is	**Generalization :-** ① tell me the factors of $4x^2y$ & $8x^2y$
Statement of Aim :- So, Today we will learn about factorisation of Algebraic expression.	
Presentation :- ① Teacher explain formula for factors of quadratic trinomials.	
② Teacher say write down formula in your note book.	**Recapitulation :-** ① Let us solve some examples using factors of quadratic trinomial
③ Teacher solve examples of quadratic trinomial.	
④ Teacher show chart paper and explain the example of factors of quadratic trinomial.	1) $x^2+9x+18$ 2) $y^2+24y+144$
⑤ student ask Questions	**Application :-**
⑥ Teacher give answer.	① Fand the factors of
⑦ and say to students solve the examples of factors of quadratic trinomial.	$5y^2+5y-10$ 2) factorise $m^3-23m+120$
⑧ Teacher give homework	
⑨ students write down homework	
⑩ teacher evaluate topic.	
Conclusion :- So today we learn about factors of quadratic trinomials.	
Core Elements :- Inclucation of scientific temper	**Assignment :-** factorise
Values :- scientific attitude.	1) $2x^2+x-45$ 2) $20x^2-26x+8$ 3) $p^2-7p-44$

BLACK BOARD WORK

Jottins Diagram :-

Summary :-

Subject:- maths
unit:- Factorisation of Algebraic expression
subunit:- Factors of quadratic trinomials.

1) Factorise
$$2x^2 + 5x - 18$$
$$= 2x^2 + 9x - 4x - 18$$
$$= x(2x+9) - 2(2x+9)$$
$$= (2x+9)(x-2)$$

-36
$/\backslash$
$+9 \quad -4$

2) Factorise
$$x^2 - 10x + 21$$
$$= x^2 - 7x - 3x + 21$$
$$= x(x-7) - 3(x-7)$$
$$= (x-7)(x-3).$$

Remarks Items

.... Set induction
.... Model Reading
.... Model Recitation
.... Objective Qns
.... Silent Reading
.... Narrations
.... Explanations
.... Illustrations
.... Questions
.... Use of teaching aids
.... Class Response
.... Class Participation
.... Black Board work
.... Experiments
.... Demonstrations
.... Specimen observation
.... Dramantization
.... Student's reading / recitation / drill
.... Closure
.... Teacher's knowledge of content
.... Teacher's preparation of lesson
.... Method of teaching
.... Interest created
.... Class control

Seen the remarks of the supervisor

Guiding Professor

Suggestions :-

* Introduction with question
*. B.B.W - divided into two equal part step by step

General Remarks

Supervising Professor

Theme based lesson

Co-teaching - 1

Name of the pupil teacher	practising School
Jadhav Kirti Dayanand	Anand Global school
Roll No'. 26	Kalyan East
Subject! - mathematic	
Lesson No :- General Col)	std : VII Div - —
Topic :- operation of	9:45 to 9:15
Rational Numbers	
sub Topic :- Addition	
and substraction of	
Rational No	

previous knowledge of class :-
student have previous knowledge of natural
numbers, integer .

Teaching point	General objectives.
① Additt	① Knowledge :- pupil acquire the
Rational no..	knowledge about Reationalnumber
	② Understanding :- The pupil
2) operation on	develop an understanding of
Rational Numbers.	Rational number
① Addition	③ Application :- pupil applied
② subtraction.	their knowledge understanding
	and become familiar with
	of opration of rationalnumber
	④ Skill :- pupil develop the skill
	required to study Random
	experiment and equall.
	operation of rational numbers

Teaching Aids :- chart showing identification
of numbers fat number .

Refference: https://Dontmemorise.com

Content Analysis	Objective specification
In Rational-Numbers.	*knowledge :- ① Pupil recognize the term rational numbers and Addition & subtraction of rational number. ② pupil memorize the term rational numbers.
In previous standards, we have learn that the counting numbers 1,2,3,4 ···· are called natural numbers.	
We know that natural numbers, zero, and the opposite number of natural numbers together form the group of integers. we are also familiar with fractions like $\frac{7}{11}$, $\frac{2}{5}$, $\frac{1}{7}$	Understanding :- ① Pupil will also develop and understanding of relationship between rational numbers. ② The pupil express their view on operation of Rational number (addition & subtraction) *Application :- ① pupil will be able to use. in daily life.
IS there then group that includes both integrers and fraction. ✓	② pupil judge their knowledge about operatio rational no numbers.
all integers can be written in the form the $\frac{m}{n}$. If m is any integer and n is any arbitary number non-zero integer then the number $\frac{m}{n}$ is called a rational number.	*skill :- ① pupil develop skill of observation of example of rational numbers. ② Pupil does written calculation correctly.

student
subject
④
student
⑤
subject
⑥ subject
student
⑦
subject

student

Pupil
teacher

	student	

Introduction ~ Teacher write write on black board many numbers & like and ask students which type of number

statement of Aim :- Today we will be learning about operation of rational numbers.

student teac
presentation :- ① Teacher explain students to rational numbers & give examples of rational number.
② student ask Question.
③ teacher explain the topic give answer.
④ Teacher write down example of rational number
⑤ Teacher explain examp operation of rational number addition.
⑥ Teacher solve example of rational addition of rational number.
⑦ Teacher ask Question.
⑧ student give answer
teacher give homeworke
⑨ student write down homework

Conclusion :- Hence do today we have learnt operation of rational numbers.

Core element :- Inculcation of scientific temper.
value :- scientific attitude.

Evaluation
Generalization

1) which number is called natural number
② which number is called whole number

Recapitulation.
① why operation on rational number are carried out as fraction.

⑧ Application.
1) carry out the following addition of rational number.
i) $2\frac{3}{11} + 1\frac{3}{77}$
ii) $1\frac{2}{3} + 2\frac{4}{5}$

Skill assignment
Carry out the following subtraction involving rational number.
① $\frac{7}{11} - \frac{3}{7}$
2) $1\frac{2}{3} - \frac{3}{6}\frac{5}{6}$

Black Board work.

* all integers can be written in the form $\frac{m}{n}$. If m is any integer and n is any non-zero integer then the number $\frac{m}{n}$ is called a rational number.

① $\frac{5}{7} + \frac{9}{11}$

$= \frac{5 \times 11 + 7 \times 9}{7 \times 11}$

$= \frac{55 + 63}{77}$

$= \frac{118}{77}$

Seen
28/8

LESSON NOTES

Name of the Pupil Teacher _____ Jadhav Kirti Dayanand

Roll No. 26

Subject mathematics

Lesson No. (General) (03)

Lesson No. (In the method) 7

Topic Addition operation of Rational Number

subtopic :- Addition and subtraction of rational number

Practising School Anand Global school

Std. 7th   Div. A

Date 29-8-2019

Time - From 9:15   To 9:45

Previous knowledge of the class

Student have previous knowledge of natural numbers.

Teaching Points	General Objectives
1) Rational Number	① Knowledge :- pupil acquire the knowledge about Rational number
2) Operation on Rational Numbers	② Understanding :- The pupil develop an understanding of Rational number
i) Addition of rational number	③ Application :- Pupil applied their knowledge, understanding and become familiar with operation of rational number.
ii) subtraction of rational number	④ Skill :- pupil develop the skill required to study operation of rational numbers.

Teaching Aids :- chart showing identification of numbers.

Reference Aids :- Book https://Dont memorise. come.

Content Analysis	Objective : Specifications
— Rational Numbers. In previous standards we have learn that the counting numbers $1, 2, 3,$ ... are called natural numbers. We know that natural numbers, zero and the are called whal number. Natural number zero and opposite number of natural number to gether form the group of integers we are also familiar with fractions like $\frac{7}{11}, \frac{2}{5}, \frac{1}{7}$ Is there then group that includes bothe integers and fraction all integers can be written in the form $\frac{m}{n}$. If m is any integer and n is any non-zero integer then the number $\frac{m}{n}$ is called a rational number.	Knowledge:- ① pupil recognize the term rational numbers and Addition & subtraction of rational number ② pupil memorize the term rational numbers. Understanding: ① pupil will also develop and understanding of relationship between rational numbers. ② The pupil express their view on operation of rational number (Addition subtraction Application. ① pupil will be able to use in daily life. ② pupil will be judge their knowledge about rational numbers. skill ① pupil develop skill of observation of example of rational numbers. ② pupil does written calculation correctly.

Procedure	Evaluation
Introduction :- stu Pupil Teacher :- write on black Board many numbers and ask students which type of numbers.	**Generalization :-** ① which numbers is called natural number. ② which numbers is called whole number.
Statement of Aim :- Today we will be learning about operation of rational numbers.	
Presentation :- Pupil teacher :- ① explain rational numbers and give example of rational numbers. ② student ask question. ③ pupil teacher give answer ④ Pupil Teacher :- write down example of rational number. ⑤ Subject Teacher explan operation of rational numbers ⑥ subject teacher :- solve example of addition of rational number. ⑦ subject teacher ask question on addition of rational number ⑧ student give answer. ⑨ a pupil teacher :- explain the substraction of rational number ⑩ pupil teacher :- write down example of rational number. and ask question ⑪ subject teacher :- give home work ⑫ student note down home work.	**Recapitulation :-** ① why operation or rational number are carried out as fraction.
	Application :- ① carry out the following addition of rational number. i) $2\frac{3}{11} + 1\frac{3}{77}$ ii) $1\frac{2}{3} + 2\frac{4}{5}$
Conclusion :- Hence today we have learnt operation of rational numbers.	**Assigment :-** carry out the following subtraction involving rational numbers.
Core Elements :- Inclucation of scientific temper.	**Assignment :-**
Values :- scientific attitude.	① $\frac{7}{11} - \frac{3}{7}$ ② $1\frac{2}{3} - 3\frac{5}{6}$

Pupil teacher

BLACK BOARD WORK

Jottins Diagram :-

Summary :-

Sub: maths
Topic :- operation on
rational numbers.

* all integers can be written in the form $\frac{m}{n}$. If m is any integer and n is any non-zero integer then the number $\frac{m}{n}$ is called a rational number.

① $\frac{5}{7} + \frac{9}{11}$

$= \frac{5 \times 11 + 7 \times 9}{7 \times 11}$

$= \frac{55 + 63}{77} = \frac{118}{77}$

$\frac{5}{7} + \frac{9}{11} = 55 \frac{118}{77}$

Remarks Items

.... Set induction
.... Model Reading
.... Model Recitation
.... Objective Qns.
.... Silent Reading
.... Narrations
.... Explanations
.... Illustrations
.... Questions
.... Use of teaching aids
.... Class Response
.... Class Participation
.... Black Board work
.... Experiments
.... Demonstrations
.... Specimen observation
.... Dramantization
.... Student's reading / recitation / drill
.... Closure
.... Teacher's knowledge of content
.... Teacher's preparation of lesson
.... Method of teaching
.... Interest created
.... Class control

Seen the remarks of the supervisor

Guiding Professor

Suggestions :-

- Set induction done.
- BB work done.
- Explanation done.
- Effective use of teaching aid.
- class participated.
- Class control to increase.
- Interest created

General Remarks

Overall lesson is v.good.

Supervising Professor

29/8/19

Co-teaching - 2

Name of the pupil teacher :-	practising school.
Jadhav kirti Dayanand.	Anand Global School
Roll No :- 26	kalyan East
Subject :- mathematics.	std :- VII Div :-
Lesson No :- General (0.2)	
Topic :- operation on Rational	
Numbers.	

Sub Topic :- multiplication
and substraction of
Rational number.

Previous knowledge of class :-
student have previous knowledge of natural
number, integer, whol number, Rational
number, addition & substraction of rational numb

Teaching Point :	General objectives.
① multiplication of rational number.	① Knowledge : - Pupil acquire the knowledge about add multiplication or division of rational number.
② division of rational number.	② understanding :- The pupil develop an understanding of multiplication and division of rational number.
③ multiplicative inverce.	③ Application :- Pupil applied their knowledge understanding and become familiar with multiplication and division of rational number.
	④ Skill :- Pupil develop the skill required to study multiplication and division of rational number.

Teaching Aids :- chart showing example of
multiplication of and division of rational number

Reference :- https://Dont memorise.com

Content Analysis	Objective specification

Content Analysis

To divide one number by another is to multiply the first by the multiplicative inverse of another.

We have seen that $\frac{5}{6}$ and $\frac{6}{5}$, $\frac{2}{11}$ and $\frac{11}{2}$ are pairs of multiplicative inverses.

Similarly $\left(\frac{-5}{4}\right) \times \left(\frac{-4}{5}\right) = 1$

$\left(\frac{-7}{2}\right) \times \left(\frac{2}{7}\right) = 1$

Thus $\left(\frac{-5}{4}\right)$ and $\left(\frac{-4}{5}\right)$ as also $\left(\frac{-7}{2}\right)$ and $\left(\frac{2}{7}\right)$ are pairs of multiplicative inverse.

similarly $-\frac{5}{4}$ and $-\frac{4}{5}$ or $\frac{-7}{2}$ and $\frac{-2}{7}$ are pairs of multiplicative inverses of rational numbers. That is $-\frac{5}{4}$ & $-\frac{4}{5}$ are each other's multiplicative inverse and so are. $\frac{-7}{2}$ and $\frac{-2}{7}$

Objective specification

*** Knowledge :-**

① The pupil recognize the term rational numbers on ~~addition~~ multiplication & ~~&~~ division of

② pupil memorize the term multiplication & division of rational number

*** Understanding :-**

① pupil will also develop understanding of relationship between multiplication and ~~so~~ division of rational num

② The pupil express their view on ape multiplication & division of rational number.

*** Application :.**

① Pupil will be able to use in daily life.

② pupil judge their knowledge about multiplication and division of rational number.

skill

① pupil develop skill of observation of example of rational numbers as multiplication & division of rational number.

② Pupil does written calculation correctly.

Pupil teacher

	Procedure:-	Evaluation.
ion		Generalization.
	student teacher Introduction:- ~~writ~~	
the term	~~last~~ yesterday we have	
m	learn about operation	① Tell me the multiplicative
ion of	of rational number.	inverse of $\frac{5}{2}$ & $\frac{6}{25}$
he term	(Addition & subtraction).	
sion of		
	subject teacher Statement of Aim:- Today	Recapitulation.
	we will be learn about	① $\frac{-11}{9}$ and $\frac{9}{11}$ is not
elop	a multiplication and	
y of	subtraction of rational	multiplicative inverse.
multiplicat	numbers.	
en addion		
tional num	Presentation:-	② Application.
their view	Student teacher:- Pupil	* mutiply the following.
n &	Teacher the multiplication	rational number.
umber.	of rational numbers.	① $\frac{3}{11} \times \frac{2}{5}$ ② $\frac{12}{5} \times \frac{4}{15}$
	subject Teacher explasdip	
	multiplication	
	example of rational number	
	(pupil)	
le to use	student teacher:- give	* carry out the.
	Question of multiplication	division of rational
r knowledge	studen pupil teacher:- explain	numbers.
n and	a division of rational number	① $\frac{40}{12} \div \frac{10}{4}$ ② $\frac{-10}{11} \div \frac{11}{10}$
al number.	subject teacher:- solve	
	example of division of	
	rational number.	
kill of	subject teacher give	still Application.
example	home work	i) carry out the
ers.	Pupil teacher conclusion:- Hence today	given rational number
division	we have learnt	① $\frac{-7}{8} \div \frac{-3}{6}$ ② $\frac{-8}{9} \times \frac{3}{4}$
er.	multiplication and division	
	of rational numbers.	
itten		
rectly.	core element:- Inclucation	
	of scientific temper.	
	value:- scientific	
	attitude.	

Subject:-maths.
Topic :- operation of
rational number.
sub Topic :- Addition 6 multiplication
of rational number

* To divide one number by another is o to multiply the first by the multiplicative inverse of the other.	example. operate given
example	1) $\frac{9}{13} \times \frac{14}{7}$
$\frac{5}{6} \times \frac{6}{5} = 1$	$= \frac{9 \times 7 - 13 \times 14}{13 \times 7}$
is mut product is one.	$= \frac{9 \times 9}{13 \times 7}$
	$= \frac{36}{91}$

year
28/8

$\frac{5}{3} \pm \frac{3}{5} = 1$

LESSON NOTES

Name of the Pupil Teacher ....

...Jadhav...kirti...Dayanand...........

Roll No. **26**

Subject .... Mathematics..........

Lesson No. (General) (**8**)

Practising School ..Anand...............

Gelobal...school..........

Std. ......VII...... Div. .A..

Date 30/8/2019

Time - From ..9:15...... To 9:45

Lesson No. (In the method) co-teaching-02

Topic multiplication and substraction
of Rational number:
Topic:- operation on Rational
number.

Previous knowledge of the class

student have previous knowledge of natural number, integer, whole
number, Rationlnumber, addition & subtraction of rational number

Teaching Points	General Objectives
1) Multiplication of rational number. 2) division of rational number 3) multiplicative inverge.	①Knowledge: pupil acquire the knowledge about multiplication or division of rational numbers ②understanding: The pupil develop an understanding of multiplication and division of rational number ③Application:- pupil applied their knowledge understanding and become familiar with multiplication and division of rational number. ④skill:- pupil develop the skill required to study multiplication and division of rational number

Teaching Aids :-   Chart showing defination of multiplicative
inverse

Reference Aids :- Book   https://Dontmemorise.com

Content Analysis	Objective : Specifications
divide one number by another is to multiply the first by the multiplicative inverse of another.	* Knowledge:- ① The pupil recognize the term multiplication and division of rational number ② Pupil memorize the term multiplication and division of rational number.
We have seen that $\frac{5}{6}$ and $\frac{6}{5}$, $\frac{2}{11}$ and $\frac{11}{2}$ are pairs of multiplicatives	* Understanding : ① pupil will also develop and understanding of relationship between multiplication and division of rational number
similary $\left(\frac{-5}{4}\right) \times \left(\frac{-4}{5}\right) = 1$ & $\left(\frac{-7}{2}\right) \times \left(\frac{-2}{7}\right) = 1$	② The pupil express their view on multiplication & division of rational number.
Thus $\frac{-7}{2}$ and $\frac{-2}{7}$ are pairs of multiplicative inverse.	* Application : ① Pupil will be able to use in daily life
similarly $\frac{-5}{4}$ and $\frac{-4}{5}$ or $\frac{-7}{2}$ and $\frac{-2}{7}$ are Pairs of multiplicative	② Pupil judge their knowledge about multiplication and division of rational number.
inverses That $\frac{-5}{4}$ & $\frac{-4}{5}$ are each other	* Skill :
multiplicative inverse and so are $\frac{-7}{2}$ and	① pupil develop skill of observation of examples of multiplication & division of rational number.
$\frac{-2}{7}$.	② Pupil does written calculation correctly.

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Procedure	Evaluation
Introduction :- Student teacher :- yesterday we have learn about operation (multt Addition and subtraction) of rational number.	**Generalization :-** Tell me the multiplicative inverse of given numbers
Statement of Aim :- Subject teacher :- so today we will be learn about multiplication sublivision and multiplicative inverse of rational number	1) $\frac{5}{2}$ 2) $\frac{6}{25}$
Presentation : ① Pupil Teacher :- explain the multiplication of rational number ② subjet teacher :- solve example of multiplication of rational number ③ Pupil Teacher :- give to the examples for solving student. ④ subject teacher clear daut for students. ⑤ pupil Teacher :- explain the, multiplicative inverse. and solve example of rational number ⑥ Pupil teacher ask Question on multiplicative Inverse of rational numbers ⑦ subject Teacher :- explain the division of rational numbers. ⑧ Pupil teacher :- solve example of rational numbers. ⑨ Pupil teacher :- give homework. ⑩ student note down home work.	**Recapitulation :-** why $-\frac{11}{9}$ and $\frac{9}{11}$ is not multiplicative inverse. **Application :-** ✱ carry out the given rational numbers 1) $\frac{3}{11} \times \frac{2}{5}$ 2) $\frac{12}{5} \times \frac{4}{15}$ 3) $\frac{40}{12} \div \frac{10}{4}$ 4) $\frac{-16}{11} \div \frac{11}{10}$
Conclusion :- Pupil teacher :- Hence today we have learnt multiplication and division of rational number **Core Elements :-** Inclucation of scientific temper. **Values :-** Scientific attitude.	**Assignment :-** carry out given rational number 1) $\frac{-7}{8} \div \frac{-3}{6}$ 2) $\frac{-8}{9} \times \frac{3}{4}$

BLACK BOARD WORK

Jottins Diagram :-	Summary :-
	subject :- maths TOPIC :- operation of rational numbers sub Topic : Addition & multiplication of rational number.

* To divide one number by another is to multiply the first by multiplicative Inverse of the other.

example. $\frac{5}{6} \times \frac{6}{5} = 1$

is product is one.

example of multiplication

1) $\frac{9}{13} \times \frac{14}{7} = \frac{9 \times 7 - 13 \times 14}{13 \times 7}$

$= \frac{9 \times 4}{13 \times 7}$

$= \frac{36}{91}$

Remarks Items

- ✓ Set induction
- Model Reading
- Model Recitation
- Objective Qns
- Silent Reading
- Narrations
- ✓ Explanations
- Illustrations
- Questions
- ✓ Use of teaching aids
- ✓ Class Response
- ✓ Class Participation
- ✓ Black Board work
- Experiments
- ✓ Demonstrations
- Specimen observation
- Dramantization
- Student's reading / recitation / drill
- Closure
- ✓ Tea er's knowledge of content
- ✓ Tea r's preparation of lesson
- ✓ Method of teaching
- ✓ Interest created
- ✓ Class control

Seen the remarks of the supervisor

Guiding Professor —

Suggestions :-

1. Topic was introduce
2. concept was clear
3. Explaination was Good
4. B.B work was Good.
5. Teaching Aids used
6. interest Generate in pupils
7. improve Time management
8. Assignment was Given.
9.

General Remarks Overall Lesson was Good.

Supervising Professor — 30/8/2019

Co-
teaching
lesson

Name of the Pupil teacher	practising school
Jadhav Kirti Dayanand	Anand Global school
Roll No :- 26	std: 8th 5th DiV:- A
subject :- maths	Date:-
Lesson No:- 1	Time
Theme:- fruit shop ✓	
(concept :- The unitary method.)	

previous knowledge of class :- Pupil (may) have knowledge about various fruits which they eat & observe in daily life such as mango, orange, bam banana

Teaching points	
1) The Unitary method	① knowledge:- The Pupil acquire the their knowledge about The unitary method.
?	② Understanding:- Pupil develop an understanding The unitary method.
	③ Application:- pupil applied their knowledge and understanding about familiar with The unitary method
	④ skill:- pupil develop the skill required to study The unitary method.

Teaching Aids:- fruits, drawing, fruit basket
↓2).

Reference ?

Content Analysis	Objective specification
In	knowledge: pupil acquire
Unitary method	the know
In our daily lives when buying items like vegetable the seller mentions the wholesale prices. For example, suppose we buy 1 dozone of (12) bananas for 24 Rs. How can we find out the price for one banana? The answer to this is the unitary method Further we can calculate the prize of 12 Bananas given the knowledge of cost of 1 banana.	The ① pupil recalls mathematical term The unitary method
	The ② pupil recognize the term unitary method
	Understanding ① The pupil gives illustrations for mathematical concept unitary metod ② The pupil detects errors in mathematical operations.
Givena its importance in our daily lives, let us understand about the unitary method.	Application ① The pupil applied knowledge of mathematics to novel situation ② Pupil pr. The pupil predicts results on the basis of unitary method
The word unitary referce to a single or an individual unit. Hence this method aims at determining values in relation to single unit.	Skill ① The pupil does written calculation correctly. ② pupil The pupil develop interest in mathematics.

	procedure	Evaluation
on,	Introduction:- Teacher set a	① which is your
tire	fruit shop In the class	favourite fruit.
baa-	and starts Selling & buying	② you have 10 Apple
ry	of fruits.	20 banana, & 28
	statement of Aim:- so	orange so tell me
e	today we have going to	total number of
ood	study about fruit shop.	fruits you have.
	presentation: ① Teacher	
	Show the chart showing	Recapitulation.
	fruit shop.	① 1 Banana price is
	② Teacher calls a students	3 rupees so tell
	to buy one kg of mangoes	me the 50 bananas
es	from the shop-keepers.	prize.
ical	③ Students calculate the	② 12 Apple prize is
	prize of one 1kg of mangoes	60 rupees so tell me
	mangoes gose to shopkeepers	the 1 apple prize.
	④ This way teacher explains	
	unitary method to	Application.
tes	students.	① 8 Pairs price is
	⑤ students calculates	If 100 10 mangoes
	with the help of teacher	cost prize is 325 640
	explainations.	so tell me the
d		one mango prize.
		② If Find the
		Cost of 8kg apple.
		if cost of 10 kg is
		325
		Assigment.
		① A bunch of 15
	▷core element :- Inclucation	bananas cost 45
	of scientific temper.	rupees How much
	value :- scientific attitude	will 8 bananas cost

Black Board Work.

s

Subject : math.

b) Theam :- fruit shop.

Black Board Work.

Subject : math.

b) Theam :- fruit shop.

Teame.

Name of the pupil Teacher	practicing school
Jadhav Kirti Dayanand	Anand Global School
Roll No :- 26	std : 5th Div :- A
subject :- maths	Date :- 8th 21/09/19
Lesson No.	
Topic :- Theame :- fruit shop.	

Previous knowledge of the class :- The pupil have knowledge about various fruits which they eat & observe in daily life such as mango orange banana.

Teaching points	General objectives
1) unitary method	① knowledge :- The pupil acquire their knowledge about the unitary method
* addition	
multiplication.	
	② understanding :- The pupil develop an understanding unitary method
	③ Application :- The pupil applied their knowledge and understanding about familiar with the unitary method
	④ skill :- pupil develop the skill required to study the unitary method.

Teaching Aids :- chart showing of fruit shop drawing.

Rellerence.   w.w.w . maths fun. com

Content Analysis	objective specification
Unitary method. In our daily lives when buying items like vegetables the seller mention the wholesale prices. For example. suppose we buy 1 dozone of (12) 'bananas for 24 Rs. How can we find out the price for one banana? The answer to this is the Unitary method. Further we can calculate the prize of 12 Bananas. give the knowledge of cost of 1 Banana. Given its importance in our daily lives, let us understand about the unitary method. The word unitary referce to single or an individual unit. Hence this method aims at determining value in relation to single unit.	**Knowledge** ① pupil recalls mathematical term the unitary method ② The pupil recognize the term unitary method. understanding. ① The pupil gives illustrations for mathematical concept. unitary method. ② The pupil detects error in mathematical operations. Application. ① The pupil applied knowledge of mathematics to novel situation ② The pupilo predicts results on basis of the unitary method. Skill:- ① The pupil does written calculation correctly. ② The pupil develop interest in mathematics.

Procedure	Evaluation
Introduction:- Teacher set a fruit shop In the class and starts selling & buying of fruits.	Generalization.
	① which is your favorite fruit
	② you have 10 Apple 20 banana & 28 orange so tell me total number of fruits you have.
Statei	
Statement of Aim: so today we have going to study about fruit shop.	
presentation:- ②	Recapitulation
Thea Teacher activity.	①1Banana prize is 3 ruppes so tell me the 50 banana prize
① Teacher show the chart showing fruit shop.	
② Teacher say to student observe the given Picture and what will you see.	② 12 Apple price is 60 ruppes So tell me 1 Apple prize
③ Teacher explain unitary method.	
④ teacher give example of on black Board & solve the example.	Application.
student activity.	① If 4 mangoos cost price is 640 so tell me the one mango prize.
① Students will observe the Picture and answer the question	
② Student's will listen & note down answer the question	
③ student's will listen to the question & answer based on their previous Knowledge & understanding.	② Find the Cost of 8kg apple if cost of 10 kg is 325
④ students listen and understand and solve the example of unitary method.	Assigment.
	① A bunch of 15 bananas cost 45 ruppes How much will 8 bananas cost.
Core element: Inclucation of scientific temper, removal of social barier.	
value:- scientific attitude.	

subject :- maths
Theam :- fruit shop.

example 1)

1 Banana price is 3 ruppees
so tell me the 50 banana
price

answer.

=> 01 Banana price is 3 ruppies
so we want to find 50
banana prize.

∴ 3 × 50

50 Banana price
= one banana prize
× no of banana
= 1 ×

50 Banana prize
= $ 3 × 50
= 80 ruppies.

∴ 50 Banana
prize is 80 ruppies.

* theme lesson - will be help of role
play method

* lesson - good

LESSON NOTES

Name of the Pupil Teacher ..Jadhav..Kirti.......... Dayanand...........

Practising School .....Anand........... Global School.....

Roll No. | 26 |

Std. ....6th.......... Div. ..A...........

Subject ....Mathematics....................

Date ..11/09/19...

Lesson No. (General) (1)

Time - From .....9:15.......... To ..9:45.....

Lesson No. (In the method) to 9

Topic .....fruit shop.......
..........(The unitary method.)...........

Previous knowledge of the class

...The pupil have knowledge about various fruit shop which they eat & observe in daily life such as mango orange, banana.

Teaching Points	General Objectives
1) Unitary method. * addition * multiplication.	① knowledge:- The pupil acquire their knowledge about the unitary method. ② Understanding:- The pupil develop an understanding unitary method ③ Application:- The pupil applied their knowledge and understanding about familiar with the unitary method. ④ skill:- pupil develop the skill required to study the unitary method.

Teaching Aids :- chart showing fruit shop

Reference Aids :- Book www.mathsfun.com

Content Analysis	Objective : Specifications
Unitory method. In our daily lives when buying items like vegetable the seller mention the wholsale prices. for example suppose we buy 1 dozane Bananas for 24 Rs. How can we find out the price for one banana?	Knowledge. ① pupil recalls mathematical term unitory method. ② The pupil recognize term Unitary method.
The answer to this is the unitary method Further we can calculate the prize of 12 Bananas give the knowledge of cost of 1 Banana.	Understanding. ① The pupil give illustrations for mathematical concept unitary method. ② The pupil detects errors in mathematical operation
	Application. ① The pupil applied knowledge of mathematics to novel situation
Given its importance in our daily lives. let us understand about the Unitory method.	② The pupil predicts result on basis of the unitary method.
The word Unitory referce to single or an individual unit Hence this method aims at determing value in relation to single unit.	Skill ① The pupil does written calculation correctly. ② The pupil develop interest in mathematics.

Procedure	Evaluation
Introduction :- Teacher set a fruit shop In the class and starts selling & buying of fruits.	**Generalization :-** ① which is your favorite fruit. ② you have 10 Apple, 20 Banana, 62 and 28 orange.
Statement of Aim :- so today we have going to study about fruit shop Teacher activity.	So tell me total number of fruits you have.
Presentation : ① Teachers show the chart showing fruit shop ② Teacher say to student observe the given picture and what will you see. ③ Teacher explain unitary method ④ teacher give example on black Board & solve the example. student activity. ① student will observe the picture and answer the question ② student's will listen & note down ③ student will listen to question and answer based on their privious knowledge & understanding ④ students listen and understand example. ⑤ students solve the example of unitary method	**Recapitulation :-** ① 1 Banana price is 3 rupice so tell me the 50 banana price.
	Application :- ① If 4 mangoe's cost price is 640 so tell me the one mango price. ⑧ ② find the cost of 8 kg apple if cost of 10kg is 325.
Conclusion :- so today we learn unitary method	
Core Elements :- Core lelement: Inclucation of of social barrier **Values :-** scientific temper, removal of values: - scientific attitude.	**Assignment :-** A bunch of 15 Bananas cost 45 Rs. How much will 8 Banana cost.

BLACK BOARD WORK

Jottins Diagram :-

Summary :-

Subject: maths

Theam: fruitshop

ex. 1) B One Banana price is 3RS
so tell me one 50 banana price
answer.
1 Banana prize is 3 ruppies
so we want to find 50 Banana
price.

∴ 50 Banana Prize

= one banara prize
× no of Banana.

∴ 50 banana price

= 3×50

= 80 Ruppies.

∴ 50 Banana price

is 80RS.

Remarks Items
.... Set Induction
.... Model Reading
.... Model Recitation
.... Objective Qns.
.... Silent Reading
.... Narrations
.... Explanations
.... Illustrations
.... Questions
.... Use of teaching aids
.... Class Response
.... Class Participation
.... Black Board work
.... Experiments
.... Demonstrations
.... Specimen observation
.... Dramantization
.... Student's reading / recitation / drill
.... Closure
.... Teacher's knowledge of content
.... Teacher's preparation of lesson
.... Method of teaching
.... Interest created
.... Class control

Suggestions :-

good lesson

General Remarks

Seen the remarks of the supervisor

Guiding Professor

Supervising Professor

Name of the pupil teacher.   Aanand Global
Jadhav Kirti Dayanand.   school
Roll No: 26
subject:- maths   std:- 7th
Lesson No: 2   division - A
Them:- Rangoli   Time
concept: Area of   Date:- 13/9/19
triangle and square.

previous knowledge of class :- pupil may have
previous knowledge about Rangoli and different
type of geometrical shaps.

Teaching points	General objectives
	① Knowledge:- The pupil acquire
1) Area of triangle	their knowledge about the
cm	unitary me. Area of triangle.
② Area of rectangle	② understanding:- The pupil
	develop an understanding
③ Area of square.	Area of triangle, rectangle, square
	③ Application: - The pupil applied
	their knowledge and understanding
	about familiar with the Area
	of triangle rectangle
	④ skill:- pupil develop the skill
	required to study the Area of
	triangle rectangle square.

Teaching Aids:- chart showing rangoli.

Refference:- www. maths fun.com.

Content Analysis	objective specification.
Area	* Knowledge
Area is measure of how much space there is inside a shape. calculating area of shape or surface can be used ful in everyday life - for example you may need to know how Paint to by buy to cover a wall or how much grass seed you need to sow a lawn.	① The pupil recall mathematical term Area.
	② The pupil recognize the term Area of
	Understanding.
	① The pupil gives illustration for mathematical concept Area of triangle.
	② The pupil detects error in mathematical operation.
This page covers It two dimentional figure.	
Area of rectangle = length x breadth.	Application
	① The pupil applied knowledge of mathematics to novel situation.
Area of square = length x length = (length)^2	② The pupil predicts results on basis of the unitary Area of
	Skill :-
Area of triangle is half of rectangle or square	① The pupil does written calculation correctly.
	② The pupil develop interest in mathematics.
Area of traingle = $\frac{1}{2}$ Area of rectangle	
= $\frac{1}{2}$ x length x breadth	
or	
Area of $\Delta = \frac{1}{2}$ x length x hight.	

cation.	**Procedure :-**	**Evaluation.**
	Introduction :- Teacher show	**Generalization**
l mathe-	chart of rangoli. and ask student	① Tell me the which
rea.	what will be see.	shapes you will see
		in this rangoli ?
nize the	**statement of Aim :-** So today	② how many triangle
	we have going to study about	rectangle, square
g,	rangoli	in this picture.
s		
athematical	**Presentation :-** Teacher activity.	**Recapitulation.**
riangle.	① The Teacher show the chart.	① Length of traingle
ts error	showing rangoli	is 7cm and both
operation.	② Teacher say to students	height 3cm so
	observe the given picture and	count the area of
	what will you see.	traingle.
	③ Teacher explain area of	
d knowlede	triangle & ar of rectangle.	**Application**
vel	④ Teacher give solve example on	① colour the rectangle
	block Board & sal explain studos	and measure the
	student activity.	area of rectangle
ts	① students will observe picture.	which is whose
s of	② students will listen & paint the	length is 6cm and
of	area of triangle and measure	bread is 7cm.
	area of traingle.	
	③ Student's will listen to the.	
s written	question & answer based on	**Assigment.**
ctly.	their previous knowledge	① find out the
op	understanding	area of triangle.
ematics.	④ student listen and unders-	whose length is
	tanding and solve the example	8cm & breath is
	of Area of triangle triangle	20 cm.
	rectangle.	② length of paper is
	core element :- Inclucation	30cm and breadth.
	of scientific temper, removal	is 26 what is
	value of social barrier	area of paper.
	value :- scientific attitude.	

Black Board work.

Subject:- maths   std: 7th A
Topic:- Rangoli

We know that are area of $\triangle = \frac{1}{2} \times$ length $\times$ ~~breadth~~ hight	Area of square = = (length)^2
Area of rectangle ➅ = length $\times$ breadth.	

- — Theme introduced.

- — Theme explained

- — Adequate preperation of lesson

- — Class participated and responded.

- — Interest created.

- — class control to enhance

  $\frac{\text{fie}}{13/9/19}$

SAKET GYANPEETH'S
SAKET COLLEGE OF EDCUATION (B.Ed.)
(Affiliated to University of Mumbai)
Saket Vidyanagari, Chinchpada Road, Katemanivli,
Kalyan (East) - 421 306. Dist. Thane (MAH.)

LESSON NOTES

Name of the Pupil Teacher ....

...Jadhav Kirti Dayanand..............

Roll No. | 2 6

Subject ...... Mathematics...............

Lesson No. (General) (0 2)

Lesson No. (In the method)

Topic ...Theam :- Rangoli................

...Concept :- Area of triangle......

...and square................

Practising School ..Aanand.............

...Global School................

Std. ......7th............ Div. ....A.....

Date ...10.45.....to. 11.15......13/9/19.

Time - From ...10.45..... To ..11.15..

Previous knowledge of the class

...pupil have previous knowledge about Rangoli and...

...different type of geometrical shaps...............

Teaching Points	General Objectives
1) Area of triangle 2) Area of rectangle 3) area of square.	① knowledge :- The pupil acquire their knowledge about the area of triangle. ② understanding :- The pupil develop an understanding Area of triangle, rectangle ③ Application :- The pupil applied their knowledge and understanding about familiar with the area of triangle rectangle square. ④ skill :- pupil develop the skill required to study the area of triangle rectangle.

Teaching Aids :-   chart showing rangoli.

Reference Book :-   www. maths fun. com

Content Analysis	Objective : Specifications
Area. Area is measure of how much space there is inside a shape. calculating area of shape or surface can be used full in everyday life. for example you may need to know how muc:paint to buy to cover a wall or how much grass seed you need to saw a lawn. It two dimentional figure.	*** Knowledge** ① The Pupil recall mathematical term area. ② The pupil. recognize the term Area of triangle. **Understanding** ① The pupil gives illustration for mathematical concept Area of triangle & square ② The pupil detects error in mathematical operation **Application** ① The pupil applied knowledge of mathematics to novel situation
Area of rectangle = length x breadth	② The pupil predicts results on basis of the Area of triangle,
Area of square = length x length = (length)²	square, rectangle
	Skill :.
Area of triangle is half of rectangle or square	① The pupil does written calculation correctly.
∴ Area of recta traingle = ½ Area of rectangle = ½ x length x breadth.	② The pupil develop interest in mathematics

Procedure	Evaluation
Introduction :- Teacher show chart of rangoli and ask student. what will be see.	**Generalization :-** ① Tell me the which shapes you will see in this rangoli ? ② how many traingle rectangle, square. in this picture.
Statement of Aim :- so today we have going to study about rangoli.	
Presentation :- Teacher activity. ① Teacher show the chart showing rangoli ② Teacher say to students observe the given picture and what will you see ③ Teacher explain area of triangle and area of rectangle. ④ Teacher solve example of black Board & explain the example for stutents	**Recapitulation :-** Length of triangle is 7cm and height 3cm so count the area of triangle.
student activity. ① students will observe picture. ② students wil listen 6 paint the area of triangle. and measure area of triangle. ⑤ student will listen to the question and answer base on their privious knowledge and understanding. ④ students listen and understanding	**Application :-** colour the rectangle and measure the area of rectangle whose length 6cm and bread is 7cm.
Conclusion :- and solve example of Area of triangle rectangle square	**Assigment** ① find out the area of triangle whose length is 8cm & breadth is 20cm
Core Elements :- Inclucation of scientific temper	
Values :- removal of social barier. **value :-** scientific altitude.	**Assignment :-** ② length of paper is 30cm and breadth is 26 whal is area of paper.

BLACK BOARD WORK

Jottins Diagram :-

Summary :-

Subject · maths

Topic :- Area.

* We know that

$$\left(\text{area of }\triangle_{triangle}\right) = \frac{1}{2} \times length \times hight$$

* Area of rectangle
$$= length \times breadth$$

Area of square
$$= length \times length$$
$$= (length)^2.$$

Remarks Items

.... Set induction
.... Model Reading
.... Model Recitation
.... Objective Qns.
.... Silent Reading
.... Narrations
.... Explanations
.... Illustrations
.... Questions
.... Use of teaching aids
.... Class Response
.... Class Participation
.... Black Board work
.... Experiments
.... Demonstrations
.... Specimen observation
.... Dramantization
.... Student's reading / recitation / drill
.... Closure
.... Teacher's knowledge of content
.... Teacher's preparation of lesson
.... Method of teaching
.... Interest created
.... Class control

Seen the remarks of the supervisor

Guiding Professor

Suggestions :-

- Theme introduced.

- Theme explained.

- Adequate preperation of lesson.

- Class participated and responded

- Interest created

- Class control to enhance.

General Remarks

13/9/19

Supervising Professor

Nai
talim

lesson
un

Nai Talim –Experiential Learning Work Education

Name Kirti Jadhav ____ Roll No. 26 Subject Maths ____

Date_____ Std: 5th ____ Unit/Topic:_____

Lesson No. 1 _____ Practice Teaching School : Anand Global

LESSON OUTCOME

1.Cognitive competencies ' The pupil re calls mathematical term
Perimeter ② The pupil recognize term perimeter.
    develop
③ Pupil understanding in methematics.
④ The pupil verify results
⑤ The pupile applied knowledge of mathematics
in novel situation ⑥ The pupil develop
interest in mathematic.

2. Psycho motor competencies ④ Pup
① pupil will develop a skill using chart or news paper
    to make small handing. Paint holder. frame.
② pupil 3 will convert given exam information
    into ea craft.
③ e of

3. Affective competencies ① To develop value such as
discipline, efficiency, neatness, accuryancy.
② To develop the society values, like self-
reliance, team work, co-operativeness.

③ To appreciate dignity of labour.

1

Teaching Approaches :- To being the lesson, teacher say students to drow 5cm sqr length & 3cm width. rectangle. and say dourdar to this rectangle and say student to this bourdar is called Perimeter of rectangle.

sef induct

Intoducation (set): Previous Knowledge	Teaching Approaches
The teacher show chart of various example of Perimeter. and ask various question. ① what does this picture show ② Ltht which sfaf shapes can show in this picture.	So today we will learn about perimeter ??

LESSON STRUCTURE

Content Analysis Teaching points:

Main Content ste / perimeter	Teaching Approaches
① A A perimeter is a path that surround a two dimensional shape and perimeter is the distance arround a two dimensional shape.	A teacher show example of Perimeter using daily life.
② Perimeter of rectangle. The perimeter of a rectangle is length of all 4 side This can be represent using a formula. Perimeter = length + breadth + length + breadth. = 2 × length + 2 × breadth. ∴ perimeter of rectangle = 2×length + 2× breadth.	① drowing. discussion Teachers drow rectangle on Black Board as say student to bourdar this rectangle and calculate perimeter. students give answer.
2) perimeter of square. In the square All sides of a square are equals ∴ perimeter = length + length + length + length = 4 × length.	Teacher say students to drow your note book square rectangle have length is 5cm. students drow square. and give answer 10cm.

reflection

evaluat

Conclusion:
① ful
① P
⑪

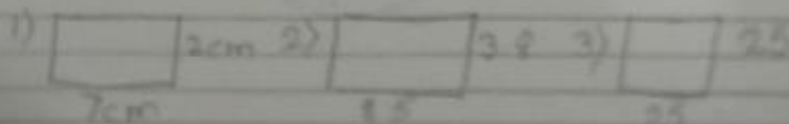| Conclusion : Recapitulation Overview of activity	Questions :
① fill im the blanks	
① pacimater of rectangle - - - -	students answer
⑪ pacimeter of square _ _ _ _	as their
	understanding.
⑪ pacimeter is _ _ _ _ _	

Resources/Materials

chart, ice cream candy stik, gluey

chart, news papa paper stike, glueo, scale.

CLOSURE

Conclusion: Overview of the activity

so today we have learnt about perimeter and how to calculate different shape of perimeter

II) calculate the perimeter of rectangle and square.

1) | 2cm 2) | 3 & 3) | 25
7cm | 1.5 | 25

Reflective thinking

Assessment and Reflection	Strategies
Evaluation /Assessment@ Paint & Paint your ® drowing book by different P colour and make perimeter. ⑥ (border - bourdar) Critical reflection: compare the two bordar of the ® drowing Paper.	Through colour and paper. Reflective thinking Reflective thinking.

*h good lesson

h

20|9

Nai Talim –Experiential Learning Work Education

Name _Jadhav kirti_ Roll No _26_ Subject _maths_

Date_20 /9119_ Std: _5th_ Unit/Topic: _perimeter_

Lesson No. _1_ Practice Teaching School : _Anand Global_

LESSON OUTCOME

1. Cognitive competencies The pupil recalls mathematical term Perimeter ② The pupil recognize term perimeter ③ Pupil develop understanding in mathematics ④ The pupil verify results. ⑤ pupil applied knowledge of mathematics in novel situation ⑥ pupil develop interest in mathomatics.

2. Psycho motor competencies ① pupil will develop a skill using ~~chart~~ ~~and~~ ice cream candy to make frame. ② pupil will convert given information into craft.

3. Affective competencies ① To develop value such as discipline. efficiency, neatness, accurancy
② To develop society value like self reliance, team work, co-oprativeness.
③ To appreciate dignity of labour

1

Intoducation (set): Previous Knowledge	Teaching Approaches
The teacher show chart of various example of perimeter and ask various question. ① what does this picture show ② which shapes can show in this picture.	To being the lesson teacher say students to droco 5cm length 63cm width rectangle and say student line the rectangle this line is called perimeter of rectangle.

LESSON STRUCTURE

Content Analysis Teaching points: ① perimeter of square
② perimeter of rectangle
③ perimeter of triangle.

Main Content Perimeter	Teaching Approaches
① A perimeter is a path that surround a two dimensional shape and Perimeter is the distance arround a two dimensional shape. ② The perimeter of rectangle The perimeter of a rectangle is length of all 4 side. This can be represent using a formula. Perimeter = length + breadth. + length + breadth ∴ perimeter of rectangle = 2 × length × bread	A teacher show Perimeter using daily life.

Main Content

2) perimeter of square.

In the square All sides of a square are equals

$\therefore$ perimeter = length + length + length + length

= 4 × length.

Teaching Approaches

Teacher say students to drow you note book square have length is 5cm students drow square. and give answer 10cm.

Resources/Materials . ice - creem candy stik, glue. Scale.

Recapitulation

Overview of activity.

(A) fil in the blanks.

1) perimeter of rectangle _ _ _ .

2) perimeter of square. _ _ _ .

3) perimeter is . _ _ _ .

Questions:

students answer as their understanding.

3

CLOSURE

Conclusion: Overview of the activity so today we have learnt about perimeter and how to calculate different shape of perimeter.

Assessment and Reflection	Strategies
Evaluation /Assessment Paint your drowing book by different colour and make perimeter.	Trough colour and Paper
Critical reflection: Compaire the two bordar of the drowing papor.	Reflective thinking.

* good lesson

Leon

Nai Talim –Experiential Learning Work Education

Name __Jadhav Kirti__ Roll No _____ Subject_____

Date_____ Std: _____ Unit/Topic:_____

Lesson No :_____ Practice Teaching School :_____

LESSON OUTCOME

1. Cognitive competencies ① The Pupil recalls mathematical term Three dimensional object and Net ② pupil develop 6 understanding in mathematics ③ The pupil verify results.
④ The pupil verify results
⑤ The pupil applied knowledge of mathematics in novel situation ⑥ The pupil develop interest novel in mathematic

2. Psycho motor competencies
① pupil will develop a skill using chart paper to make cube (box.
② pupil will convert given information into craft

3. Affertive competencies ① To develop value such as discipline, efficency, neat ness, accurancy
② To develop society value like self realize team work, co-operativeness.
③ To appreciate dignity of labour.

1

Teaching Approaches: - To being the lesson, Teacher say students to draw a box. show 3-diementional Print Painting. and say what is see in this picture.

Intoduction (set): Previous Knowledge	Teaching Approaches
The teacher show chart of of 3-diementional pictur. and ask question	?
① what does this picture show	
② do you which one can see 3-d movie.	

LESSON STRUCTURE

Content Analysis Teaching points:

Main Content	Teaching Approaches
In geometry, a three-dimensional shape can be defined as a solid figure or an object or shape that has three dimensions. length width and height. Unlike two-dimensional shapes three dimensional shapes have a thickness or depth.	A teacher show example of perimel 3-diemensional object.
	② Teacher drow cube on black Board and say student to bourdar this drow the
A attributes of a three-dimensional figure are faces, edges and vertices. The three dimensions compose the edges of a	
	Teacher explain 3-diemensional shape
3D geometric shape.	

2

Conclusion : Recapitulation Overview of activity **Questions :**

① fill in the blacks.

① define o 3-diemensional figure

② difference between 3-diementian diemensional shape.

students answer as their understanding.

Resources/Materials ›

chart, glue(w)

CLOSURE

Conclusion: Overview of the activity

So, today we have learnt about 3-di

3-dimensional object and A-

Assessment and Reflection	Strategies
Evaluation /Assessment In ~~your~~ drawing b book drow cuboid·and paint it.	Through colour and paper.
Critical reflection: compair the Cube & cuboid.	Reflective thinking.

① Topic was introduced
② interest Cenerated in pupil
③ Teacher -students interaction was good
④ B·B work was Good
⑤ Demanstration was done vi well
⑥ Give pe-information to the students
⑦ Students participation was Good.
⑧ Overall Lesson was vi Good

Nai Talim –Experiential Learning Work Education

Name _Jadhav Kirti_ Roll No _26_ Subject _maths_

Date _21/9/2019_ Std: _5th_ Unit/Topic: 3-dieamontional object and figureNet

Lesson No. _02_ Practice Teaching School : _Anand Global school._

LESSON OUTCOME

1. Cognitive competencies ① The pupil recalls mathematical term 3-dimensional object and Net ② Pupil develop and understanding in mathematics ③ The pupil verify results.
④ The pupil applied knowledge of mathematics in novel situation ⑤ The pupil develop interest in mathematic.

2. Psycho motor competencies

① The pupil will develop a skill using chart paper to make Cube (box).
② Pupil will convert given information into craft

3. Affective competencies
① To develop value such as discipline efficency, net necalness, accurancy, team work society value like self realinee,
② To devebp society value like self realince team work, Co-operativeness.
③ To appreciate dignity of labour.

1

Intoducation (set): Previous Knowledge	Teaching Approaches
The teacher show chart of 3-dimentional picture and ask question to sudats	To being the lesson teacher show 3-dimentional picture and say what is see in this picture
① what does this picture show	
② which one can see 3-ltem 3-D movie.	

LESSON STRUCTURE

Content Analysis Teaching points:

1) Introduction of 3-diamentional object.

Main Content	Teaching Approaches
In ge	
3-Dimentional object and Net.	
In geometry a 3-dimensional shape can be defined as a solid figure or an object or shape that has three dimensions. Length, width and height	① A teacher show example of 3-dimensional object.
Unlike two-dimensional shapes Three dimensional shapes have.	Teacher drow cube on black

2

Main Content	Teaching Approaches
Thickness or depth.	board and say
	drow the cube.
A all ributes of a three	Teacher
dimensional figure are face, edge	explain
and vertices. The three	3 - dimensional
dimensions compose the edge	shape.
of 3D geometric shape.	

Resources/Materials

chart paper, glue.

Recapitulation	Questions :
overview of activity.	students
⊗ fill in the blanks.	answer as
① define 3- dimensional figure	their
② difference between	understanding.
3 dimensional shape or	
2 dimensional shape.	

Conclusion: Overview of the activity

so today we have learnt about
3-dimensional object and Net.

Assessment and Reflection	Strategies

Evaluation /Assessment

bro book draw
In drawing book draw
cuboid and paint it
Paint it

Through
colour and
paper.

Critical reflection:

compaire the cube
and cuboid.

Reflective
thinking.

21/9/2019

4