



Chapter Teaching Plan

Teacher(s) Teacher 1: Manju B-Nemilichery Teacher 2: Debendra Nath Patra-Bhawanipatna Teacher 3: Pratap Kumar Sahu-Bhadrak	School(s) : School 1: TN - Sri Sathya Sai Institute of Educare, Nemilichery, Chennai School 2: OD - Sri Sathya Sai Vidya Vihar, Bhawanipatna School 3: OD - Sri Sathya Sai Vidya Vihar, Bhadrak
Board CBSE	Standard : 8
Subject : Mathematics	Chapter: Linear Equations-one variable
# of Periods : 3	Academic Coordinators: AC 1: Rajani Chandramouli AC 2: Pushpa Krishnan

Learning Objectives:

List the learning outcomes the students will attain through the content and activities in this chapter.

1) To identify the algebraic expression in one variable. 2. To Learn about linear equations in one variable. 3) To learn the procedure for solving the given equation. To learn and apply linear equations in day to day situations.

Values and Dispositions:

[Mention 1 or 2 values you want to bring out through this chapter; you can also mention the value provided in the Value Content asset]

- 1) Life is full of both joy and sorrows. Always balance it.
- 2) God has no bias. All are equal before God.

Competencies:

(Mention any 1 or 2 competencies that the student has been enabled to attain through the learning outcomes in this chapter)

C-2.5 Develops own methods to solve puzzles and problems using algebraic thinking
C-2.3 Forms algebraic expressions using variables, coefficients, and constants and manipulates them through basic operations
C-2.4 Poses and solves linear equations to find the value of an unknown, including to solve puzzles and word problems
Identifies like and unlike terms.

LTM Planning:

Your plan may include the following:



- Mention the concepts in the chapter for which you plan to use LTM
- Identify LTM
- Materials you require for the LTM
- Prior preparation required

Balancing model to explain linear equation

— Period # 1 —

Each period may consist of four or more of the following :

1. LTM (Learning Teaching Material)
2. Class Starter
3. Previous knowledge recall
4. Methodology #1
5. Methodology #2
6. Wrap-up or Recap
7. Follow-up (Assessment, assignment, worksheet, home work, project work)

P#1- 1.1 TLM: Mention the LTM you plan to use in this period

Balancing Model to introduce the concept of variables and constants

P#1-1.2 Class Starter: Class starters can be short openers to your class. You may use IQ, DD, IA, or VC assets. Mention the asset name. You could enable interaction using a TLM. Other ideas are two-minute reading, show-and-talk, short story, pop quiz and so on. Give the SSSVV asset name you want to use or your idea. Mention here if you plan to use an LTM during Class Starter. How would you effectively achieve the LO using this asset/idea?

Eg. IA_Differences and Commonalities

Inquisitive Questions- IQ_ What is the difference between a variable and a constant?

Teacher Tasks:

Mention:

- * Any specific action points like instructions you would give or tools or techniques you may use
- * Any probing or open-ended questions you may want to ask
- * Demonstrations you would like to do

- a) The height of a kid and length of his/her dress
- b) Height of a plant in your garden is a variable, height of the lamp post in your street does not change, and it is a constant

Student Task:

Mention the specific actions students will engage in



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Student activity: Using Color papers showing that if two quantities are equal, then after the removal of equal quantities the remaining quantities are also equal. This can be done by students by using 2 colour papers of equal area, cutting out equal areas from both and comparing the remaining areas by superimposition.

Duration (in minutes):

5

P#1-1.3 Checking Previous Knowledge:

You may use any small technique or tool such as KWL or entry ticket to check previous knowledge. This could also be a class starter. You could use a few questions from the QA asset or interactive quiz on LMS. Connect to something very situational or contextual for the students. Please enter your plan/idea.

- 1) 2 more than a number is 7. Find the number.
- 2) The sum of 2 consecutive numbers is 7. Find them

Duration (in minutes):

5

P#1-1.4.1 Methodology - Plan or Idea (SSSVV Asset or your idea)

Mention the asset title selected or your idea.

VV Asset- MS- Solutions of linear equation in one variable

Teacher Tasks:

If you're not using an SSSVV Asset here, please mention any specific questions you will ask or instructions you will give

Using VV-Asset to explain the methodology of finding solution to linear equation in one variable.

Student Task:

Mention the specific actions students will engage in

Students will engage in understanding the process and solving a few examples

Duration (in minutes):

15



P#1-1.4.1 Methodology 2 - Plan or Idea (SSSVV Asset or your idea)

Mention the asset title selected or your idea.

VV asset-Linear Programming and its uses

Period # 1 Methodology # 2 Teacher Tasks:

If you're not using an SSSVV Asset here, please mention any specific questions you will ask or instructions you will give

IA_ Linear programming and its Uses

Period # 1 Methodology # 2 Student Task:

Mention the specific actions students will engage in

a)A magic Diamond-solving equation and finding numbers, putting them in the circles so that the total along each line of the diamond is the same.

Period # 1 Methodology # 2 Duration (in minutes):

6

P#1-1.5 Recap or wrap-up Plan

How are you planning to recap or wrap-up to ensure that students have grasped what was taught in this period or the Key learning points? You may use part of a VV asset or your own idea.

Period # 1 - Recap/Wrap Up Plan or Idea

MS_Summary of solving linear equations in one variable

Period # 1 - Recap/Wrap Up Student Task

Mention any task you have planned for students to know their learning takeaway for this period.

Planning to ask Questions to assess their take away

Period # 1 Recap/Wrap Up Duration (in minutes):

5

P#1- 1.6 Follow-up activity for this period

Mention what small assignment you would give your students. It could be a non-conventional assessment activity, a worksheet or exercise questions from the textbook or QA Asset.



Period # 1 - Follow-up Activity Plan or Idea

Short real life relevant problems from the textbook will be assigned as homework.

Period # 1 Follow-up Activity Duration (in minutes):

15

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1. LTM (Learning Teaching Material)
2. Class Starter
3. Previous knowledge recall
4. Methodology #1
5. Methodology #2
6. Wrap-up or Recap
7. Follow-up (Assessment, assignment, worksheet, home work, project work)

Chart(For Class starter), Flash Cards(Recap)

Eg. IA Differences and Commonalities

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1. "An equation is multiplied or divided by a non zero number on either side." Will there be any change in the solution?
2. "An equation is multiplied or divided by two different numbers on either side". What will happen to the equation?

- * Any specific action points like instructions you would give or tools or techniques you may use
- * Any probing or open-ended questions you may want to ask
- * Demonstrations you would like to do

Student Task:



Mention the specific actions students will engage in

Students will participate in the discussion

Duration (in minutes):

5

P#2-1.3 Checking Previous Knowledge:

You may use any small technique or tool such as KWL or entry ticket to check previous knowledge. This could also be a class starter. You could use a few questions from the QA asset or interactive quiz on LMS. Connect to something very situational or contextual for the students. Please enter your plan/idea.

I will use 'match the following' chart to check their previous knowledge

Duration (in minutes):

6

P#2-1.4.1 Methodology - Plan or Idea (SSSVV Asset or your idea)

Mention the asset title selected or your idea.

MS_Linear Equations having variables on two sides

Teacher Tasks:

If you're not using an SSSVV Asset here, please mention any specific questions you will ask or instructions you will give

Enabling a discussion and questioning and explaining

Student Task:

Mention the specific actions students will engage in

Solving linear equations by Reducing equations to simplest form

Duration (in minutes):

15

P#2-1.4.1 Methodology 2 - Plan or Idea (SSSVV Asset or your idea)

Mention the asset title selected or your idea.



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QA_Solve by using linear equations

Period # 2 Methodology # 2 Teacher Tasks:

If you're not using an SSSVV Asset here, please mention any specific questions you will ask or instructions you will give

Facilitate students to solve

Period # 2 Methodology # 2 Student Task:

Mention the specific actions students will engage in

Students will engage in solving problems

Period # 2 Methodology # 2 Duration (in minutes):

10

P#2-1.5 Recap or wrap-up Plan

How are you planning to recap or wrap-up to ensure that students have grasped what was taught in this period or the Key learning points? You may use part of a VV asset or your own idea.

Period # 2 - Recap/Wrap Up Plan or Idea

Recapping the concept by showing some equations on flash cards

Period # 2 - Recap/Wrap Up Student Task

Mention any task you have planned for students to know their learning takeaway for this period.

Students will answer for the flash cards. If they don't know the answer they will get to know.

Period # 2 Recap/Wrap Up Duration (in minutes):

5

P#2- 1.6 Follow-up activity for this period

Mention what small assignment you would give your students. It could be a non-conventional assessment activity, a worksheet or exercise questions from the textbook or QA Asset.

Period # 2 - Follow-up Activity Plan or Idea



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Planning to give homework on the questions which is provided in SSSVV asset

Period # 2 Follow-up Activity Duration (in minutes):5

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— Period # 3 —

Each period may consist of four or more of the following :

1. LTM (Learning Teaching Material)
2. Class Starter
3. Previous knowledge recall
4. Methodology #1
5. Methodology #2
6. Wrap-up or Recap
7. Follow-up (Assessment, assignment, worksheet, home work, project work)

P#3- 1.1 TLM: Mention the LTM you plan to use in this period

NA

P#3-1.2 Class Starter: Class starters can be short openers to your class. You may use IQ, DD, IA, or VC assets. Mention the asset name. You could enable interaction using a TLM. Other ideas are two-minute reading, show-and-talk, short story, pop quiz and so on. Give the SSSVV asset name you want to use or your idea. Mention here if you plan to use an LTM during Class Starter. How would you effectively achieve the LO using this asset/idea?

Eg. IA_Differences and Commonalities

IQ_ Think and solvet

Teacher Tasks:

Mention:

- * Any specific action points like instructions you would give or tools or techniques you may use
- * Any probing or open-ended questions you may want to ask
- * Demonstrations you would like to do

Will enable a discussion

Student Task:

Mention the specific actions students will engage in

Will engage in solving problems

Duration (in minutes):

10



P#3-1.3 Checking Previous Knowledge:

You may use any small technique or tool such as KWL or entry ticket to check previous knowledge. This could also be a class starter. You could use a few questions from the QA asset or interactive quiz on LMS. Connect to something very situational or contextual for the students. Please enter your plan/idea.

QA_ Solve for x (ppt questions from VV asset)

Duration (in minutes):

6

P#3-1.4.1 Methodology - Plan or Idea (SSSVV Asset or your idea)

Mention the asset title selected or your idea.

QA_ Solve by using linear equations

Teacher Tasks:

If you're not using an SSSVV Asset here, please mention any specific questions you will ask or instructions you will give

Facilitate students to solve

Student Task:

Mention the specific actions students will engage in

Students will engage in solve problems using the concept of linear equations

Duration (in minutes):15

P#3-1.4.1 Methodology 2 - Plan or Idea (SSSVV Asset or your idea)

Mention the asset title selected or your idea.

[MS_Solving equations with quotients of two linear functions .pptx](#)

Period # 3 Methodology # 2 Teacher Tasks:

If you're not using an SSSVV Asset here, please mention any specific questions you will ask or instructions you will give

Explaining how to read and convert the given statement into mathematical equation

Period # 3 Methodology # 2 Student Task:

Mention the specific actions students will engage in



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Students will engage in solving problems and checking the answers on their own by substitution.

Period # 3 Methodology # 2 Duration (in minutes):

10

P#3-1.5 Recap or wrap-up Plan

How are you planning to recap or wrap-up to ensure that students have grasped what was taught in this period or the Key learning points? You may use part of a VV asset or your own idea.

Period # 3 - Recap/Wrap Up Plan or Idea

https://learning.srisathyaivaividyaahini.org/pluginfile.php/2524/mod_folder/content/0/Teaching%20Aids/MS_Summary%20Linear%20Equation%20in%20One%20Variable.pptx?forcedownload=1

Period # 3 - Recap/Wrap Up Student Task

Mention any task you have planned for students to know their learning takeaway for this period.

Solve the questions

Period # 3 Recap/Wrap Up Duration (in minutes):

6

P#3- 1.6 Follow-up activity for this period

Mention what small assignment you would give your students. It could be a non-conventional assessment activity, a worksheet or exercise questions from the textbook or QA Asset.

Period # 3 - Follow-up Activity Plan or Idea

Giving worksheet problems to workout

Period # 3 Follow-up Activity Duration (in minutes):

10