INCLUSION IN TEXAS

Carnegie Learning Texas Math Solution (6–12)

and Specially Designed Instruction

F I E L D U S E R G U I D E

A collaborative project of the Texas Education Agency and the Inclusion in Texas Network

TEA Texas Education Agency | Texas SPED Support

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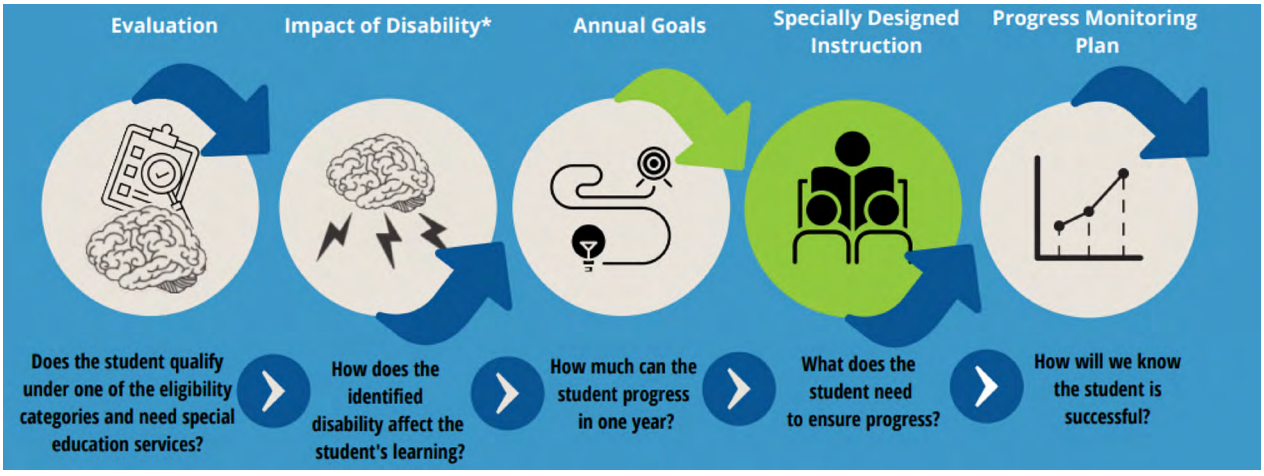
Purpose of This Guide

This Field User Guide was developed to support the use of the High Quality Instructional Materials (HQIM) Carnegie Learning Texas Math Solution (6-12) TEKS-aligned instructional materials to provide specially designed instruction (SDI) for students with disabilities as required through IDEA (2004). Both general and special educators play a role in implementing SDI for students with Individualized Education Programs (IEPs). This document provides multiple ways to approach and plan for the provision of SDI and presents multiple lenses through which readers can examine the connections between the tools and content in Carnegie Learning Texas Math Solution (6-12) and the components of SDI, which are: content, methodology, and delivery of instruction.

The content and lessons in Carnegie Learning Texas Math Solution (6-12) are subject to change; however, the implementation remains the same. For the examples in this resource, we've utilized Algebra 1, Module 2: Topic 3, Lesson 1 (Using Substitution to Solve Linear Systems) of the pilot Carnegie Learning Texas Math Solution (6-12) Resource.

The SDI is tailored specifically to address the impact the disability has on a student's learning. It is designed to ensure access of the child to the general curriculum and to enable the child to meet IEP annual goals. The Admission, Review, and Dismissal (ARD) committee develops SDI for each student. The following graphic is from the SDI Field User Guide from the Inclusion in Texas Statewide Initiative.



***Impact of disability is only one part of the present levels of academic and functional performance statement (PLAAFP).**

Specially Designed Instruction and Carnegie Learning Texas Math Solution (6–12)

The following are tools or supports included in Carnegie Learning Texas Math Solution (6-12) that aid in the development of specially designed instruction.

SDI Component	Description	Examples
Content	The curriculum, aligned with the state standards, is the content of instruction. Content adjustments could include: • Modifications determined by the ARD committee • Adjust the pacing of instruction to support student understanding	Essential Ideas: The substitution method is a process for solving a system of equations. It is an alternative method to graphing, especially when the solution is difficult to read from a graph.
Methodology	The methodology includes the instructional approach(es) best suited to the student's needs. For example: • Turn and Talk • Think-Pair-Share	Modeling Process • **Notice and Wonder** – Gather information, notice patterns, and formulate mathematical questions about what you notice. • **Organize and Mathematize** – Organize your information, and represent it using mathematical notation. • **Predict and Analyze** – Extend the patterns created, complete operations, make predictions, and analyze the mathematical results. • **Interpret and Test** – Interpret your results and test your mathematical predictions in the real world. Make adjustments as necessary. During the Engage portion of this lesson, have students work with a partner or in a group to complete Question 1. Share responses as a class. Look for general problem-solving strategies, such as drawing diagrams, creating notation to show trades, or remembering steps.
Delivery of Instruction	Delivery of instruction can include the following: Frequency – once a week, daily, two times a week, etc. Duration – 30 minutes, one hour, etc. Location – general education, self-contained classroom, special education room, etc.	Lesson Structure and Pacing • **Engage** – adjust pacing to support student readiness • **Develop** – this portion of the lesson shows the activities that can be adapted as appropriate to meet students' needs • **Demonstrate** – Consider whether the way the lesson is asking students to demonstrate their knowledge and mastery of the standard. Determine whether this is the ideal way for a specific student who has an IEP and determine if there should be an option to respond differently based on the impact of his or her disability.

Specially Designed Instruction and Carnegie Learning Texas Math Solution (6–12)

SDI Component	Description	Examples
Accessibility Features	Accessibility features (accommodations) remove barriers to learning, change how the content is taught, or how the student accesses the general education curriculum.	Begin with diagram models and build to more abstract algebraic models. Continue to have students solve systems graphically at the same time they are solving using substitution. This allows students to make connections between each method. Have them label the equations first and second equation.
Other	Family Support Guides provided through Carnegie Learning Texas Math Solution (6-12) are available in English and Spanish.	Family Support Guides can serve as guidance to parents or guardians to support math learning at home.

Considerations for Teacher Collaboration in an Inclusive Environment

The following table outlines the different collaborations that may take place regarding SDI in an inclusive environment. It is not meant to be an exhaustive list of activities a teacher might undertake or how the different roles and considerations look in the classroom.

General Education Teacher	Special Education Teacher	Technology
Explicit instruction • Provide clear, detailed, instructions • Provide examples	Meeting with teacher; e.g., itinerant/ co-teacher to preview and model the lesson design Reviewing IEP for specific responsibilities	Record directions or the steps/process of a problem-solving strategy
Modeling: Model with manipulatives, moving from the concrete to the pictorial to the abstract	Utilizes co-teaching approach during lessons to demonstrate and/or as the teacher explains thinking steps in a process	Virtual demonstration and recording of the concept using manipulatives while connecting to the pictorial and abstract levels
Preteaching • Vocabulary • Previewing concepts and skills • Mini lesson	Pre-teach vocabulary to introduce students to new vocabulary words before the new vocabulary words are used within the context of new learning Re-teach vocabulary or concepts to remind students of previously learned material before the prerequisite knowledge is used within the context of new learning	Use sentence stems in a virtual platform, which assists in scaffolding instruction to help students get started in speaking and writing
Assistive technology for vision and hearing needs	Procure assistive technology for students with vision or hearing needs Upload documents to a virtual platform that provides access to Magnification tools, highlighters, etc. Provide visual cards and hand signing or signals	Type or project content using a large font Provide captioned audio and video productions for students who are deaf/ hard of hearing

Curriculum Development Considerations

When beginning new learning, it is important to consider the misconceptions that may occur during instruction and how to address them. Additionally, subsequent learning is important as it gives teachers a view of what learning comes next to ensure appropriate mastery at the students' current level.

Carnegie Learning Texas Math Solution (6-12): Pilot Algebra 1, Module 2: Exploring Constant Change, Topic 3: Systems of Equations and Inequalities, Lesson 1: The County Fair

LESSON OVERVIEW

Students use the substitution method to solve systems of linear equations. They use substitution to solve systems of linear equations including those with no solution or with infinite solutions. Students define variables, write systems of equations, solve systems, and interpret the meaning of the solution in terms of the problem context. In the last activity they are given four systems of linear equations and solve each system using the substitution method.

Algebra 1: Linear Functions, Equations, and Inequalities
(2) The student applies the mathematical process standards when using properties of linear functions to write and represent in multiple ways, with and without technology, linear equations, inequalities, and systems of equations. The student is expected to:
(I) write systems of two linear equations given a table of values, a graph, and a verbal description.
(3) The student applies the mathematical process standards when using graphs of linear functions, key features, and related transformations to represent in multiple ways and solve, with and without technology, equations, inequalities, and systems of equations. The student is expected to:
(F) graph systems of two linear equations in two variables on the coordinate plane and determine the solutions if they exist.
(G) estimate graphically the solutions to systems of two linear equations with two variables in real-world problems.
(5) The student applies the mathematical process standards to solve, with and without technology, linear equations and evaluate the reasonableness of their solutions. The student is expected to:
(C) solve systems of two linear equations with two variables for mathematical and real-world problems.

Essential Ideas (three of five):
- The substitution method is a process for solving a system of equations. It is an alternative method to graphing, especially when the solution is difficult to read from a graph.
- To use the substitution method, it is useful if at least one equation is written in slope-intercept form.
- Problem situations can be expressed using systems of equations and solved for unknown quantities using substitution methods.

Summary
In the Getting Started Activity, students realize that systems of equations can involve more than two variables and can be solved using different reasoning strategies. In Activity 1.1, students learn that the substitution method can be used to solve a system of equations. It is an alternative method to graphing, especially when the solution is difficult to read from a graph. In Activity 1.2, students learn that when a system has no solution, the equation resulting from the substitution step has no solution. When a system has infinite solutions, the equation resulting from the substitution step has infinite solutions. In Activity 1.3, students use the substitution method to solve systems of linear equations that represent real-world situations. The substitution method can be used to solve systems of linear equations, regardless of whether they are written in standard form or slope-intercept form.

Carnegie Learning Texas Math Solution (6-12): Pilot Algebra 1, Module 2: Exploring Constant Change, Topic 3: Systems of Equations and Inequalities, Lesson 1: The County Fair

LESSON OVERVIEW CONTINUED

Questions to ask for the Getting Started Activity:
- Did you use 3 different variables in this situation?
- Explain how you could use substitution to solve this problem.
- How can you tell from your equations if it is a fair deal or not?
- If one farmer trades 4 goats for 5 chickens and a second farmer trades 3 goats for 5 chickens is this fair?
- Which farmer should include 1 additional goat in the deal to make it fair?

Possible Misconception:
Students sometimes misinterpret *infinitely many solutions* with the idea that any or all numbers are solutions to a system. Clarify this misunderstanding by having students provide ordered pairs that satisfy the equations $x+y=5$ and $4x+4y=20$. Have them graph the ordered pairs to see that they all lie on the same line. Contrast this with ordered pairs that are not solutions to the system and do not lie on the line.

As students work through the Getting Started Activity, look for:
- General problem-solving strategies, such as drawing diagrams, creating notation to show trades, or remembering steps.
- Representing the trades using equations, and using substitution to make comparisons.

The following are the *Questions to ask* from Activity 1.1 of this lesson. Additional *Questions to ask* are included with each of the activities that follow.

Questions to ask for Questions 1-6 (Activity 1.1: Introduction to Substitution)
- Why did it make sense to write this equation in standard form?
- What information in the problem situation helped you determine the coefficient of x in the equation written in standard form?
- What information in the problem situation helped you determine the coefficient of y in the equation written in standard form?
- What information in the problem situation helped you determine the constant in the equation written in standard form?
- Is the second equation $y=8x$ or $x=8y$? Explain.
- How much will 1 pound of onions and 8 pounds of potatoes cost?
- What information in the problem situation helped you determine the upper and lower bounds?
- Where is the solution to the linear system of equations located on the graph?

Ask a student to read the introduction and the given scenario aloud. Have students work with a partner or in a group to complete Questions 1 through 6. Share responses as a class.

Carnegie Learning Texas Math Solution (6-12): Pilot Algebra 1, Module 2: Exploring Constant Change, Topic 3: Systems of Equations and Inequalities, Lesson 1: The County Fair

LESSON OVERVIEW CONTINUED

Questions to ask for Questions 7-9 (Activity 1.1: Introduction to Substitution)

- Why is it easier to use the equation in slope-intercept form rather than the equation in standard form?
- Why does it make more sense to substitute $8x$ into the first equation for y rather than substituting $y/8$ into the first equation for x?
- Does x represent the pounds of potatoes or the pounds of onions?
- Why does it make sense to substitute $8x$ for y in the context of the problem?
- Why is there only one variable in the equation after completing the substitution?
- Why does it make more sense to substitute the answer for x into the equation $y=8x$ rather than $1.25x+1.05y=30$?
- How do you check to make sure your solution is correct?
- What are the advantages to using the substitution method rather than graphing to determine the solution to a system of equations?

Ask a student to read the information and definition aloud. Analyze and discuss the Worked Example and complete Questions 7 through 9 as a class.

Overview of Specially Designed Instruction and a Sample Student

Impact of Disability (excerpt from PLAAFP)	Annual Goals	Specially Designed Instruction	Progress Monitoring Plan
How does the identified disability impact the student's learning?	**How much can the student progress in one year?**	**What does the student need to ensure progress?**	**How will we know the student is successful?**
For the purpose of specializing this lesson plan, let's consider this sample student: Darren. Darren has a disability in reading comprehension that affects his ability to process text in mathematical word problems, to understand the contextual situation, and to apply his own previous mathematical knowledge to the situation. It is documented that Darren has a language impairment that affects both expressive and receptive language. Darren struggles to understand the words, sentences and meaning of what others say or what is read. Darren also has difficulty being able to put thoughts into words and sentences, in a way that makes sense and is grammatically accurate.	After teacher modeling of the problem-solving rounds strategy, Darren will label, describe, and provide an explanation for each part of the following strategy: • Read the word problem • Create an equation from the word problem • Solve the word problem using the equation • Check for accuracy Upon completion of the word problem, Darren's work will be evaluated and he will achieve a score of 3 out of 4 on a rubric.	The following ideas are a few options when adapting the content, methodology, or delivery of instruction as appropriate. • Use decodable, easy to read text and sight words in math problems • Use visuals or models to show processes and solutions of math problems. • Use checklists to help Darren organize information when solving word problems • Provide instruction on vocabulary	Darren will complete a word problem, which will be scored using the rubric developed by his instructional team and score a 3 out of 4.

Development of IEP Supports Within Carnegie Learning Texas Math Solution (6-12)

The following are examples of how Carnegie Learning Texas Math Solution (6-12) content is utilized with examples of IEP-driven supports, which are developed and applied specifically to student needs and the impact of their disability. Consider our student Darren and the impact discussed in the *Overview of Specially Designed Instruction* section. The following examples are possible ways to implement his SDI during a Carnegie Learning Texas Math Solution (6-12) lesson.

General Application:	Differentiation Techniques:	Specially Designed Instruction:
What the curriculum says	**Adaptations made for all students, not required by IEP and provided at teacher discretion**	**IEP-driven and supports accommodations and modifications that are implemented routinely as outlined in an IEP**
Vocabulary Key terms	The Student Summary, included with each topic of the module, contains important key terms with definitions and examples. The Glossary, in the Course Overview, also contains definition of key words used in Algebra I.	Pre-teach vocabulary using the Carnegie Learning Texas Math Solution interactive Glossary before the content is covered in order to help Darren make connections within a lesson.
Introduction to Module Objectives	Video explaining the importance of the concepts being taught.	Provide the video and key terms to Darren prior to the lesson. Darren will have time to process and understand the concepts that will be taught.
Connections to Lessons	Students know that every point on the graph of an equation represents a value that make the equation true. In grade 8, they learned that the point of intersection of two graphs provides x- and y-values that make both equations true. Students have written systems of linear equations and have solved them graphically. That knowledge is a springboard for this topic.	Darren grasps one concept prior to moving on to the next. Note misconceptions and address them as they occur.
Questions to Ask	Utilize the list of questions for students throughout the lesson.	Examine the questions, and determine which ones would be most beneficial when posed to Darren.

Special Considerations for Modifications

Modifications are changes to what (not how) a student will be learning. Modifications are provided when accommodations (adaptations) aren't sufficient to access the content and are only allowable when an Admission, Review, and Dismissal (ARD) committee agrees they are appropriate. For the following considerations, refer to the Introduction to the Revised Mathematics TEKS: Vertical Alignment Chart Grades 5 – Algebra I, Algebra II.

Algebra I - Representing Problem Situations With Equations and Inequalities
Teachers can use formative assessment and other data sources to determine student readiness for the grade level content. Teachers may need to conduct reteaching or remediation to prepare students for the new instruction. Consider working from the most recent standard and working backward to less complex and finding the student's instructional level using current data sources.

Consider the depth and complexity of the standard and if the depth and breadth need to be adjusted for the student to access the content if deemed necessary by the ARD committee. The following examples of teacher moves support learning at the previous standards that align with the current lesson.

Previous Standards	Teacher Moves To Address Students at This Instructional Level
8.8 – Expressions, equations, and relationships. The student applies mathematical process standards to use one-variable equations or inequalities in problem situations. The student is expected to: **(A)** – write one-variable equations or inequalities with variables on both sides that represent problems using rational number coefficients and constants. **A.2** – Linear functions, equations, and inequalities. The student applies the mathematical process standards when using properties of linear functions to write and represent in multiple ways, with and without technology, linear equations, inequalities, and systems of equations. The student is expected to: **(I)** – write systems of two linear equations given a table of values, a graph, and a verbal description. **(H)** – write linear inequalities in two variables given a table of values, a graph, and a verbal description.	Students at this instructional level require activation of prior knowledge and reminders of the process to solve such equations. Provide an example or model of how to solve the problem. Teachers may use a flipped model in order to preserve classroom time for new instruction.

Special Considerations for Modifications

Previous Standards	Teacher Moves To Address Students at This Instructional Level
7.10 – Expressions, equations, and relationships. The student applies mathematical process standards to use one-variable equations and inequalities to represent situations. The student is expected to: **(A)** – write one-variable, two-step equations and inequalities to represent constraints or conditions within problems.	Using an alternative teaching approach, students at this instructional level review one-variable, two step equations. The teacher will use practice with feedback to ensure understanding and address misconceptions.
6.9 – Expressions, equations, and relationships. The student applies mathematical process standards to use equations and inequalities to represent situations. The student is expected to: **(A)** – write one-variable, two-step equations and inequalities to represent constraints or conditions within problems.	The general education and special education teacher will collaboratively plan small-group, scaffolded instruction prior to grade-level instruction to support the acquisition of mathematical concepts and skills necessary to facilitate access to rigorous, grade-level instruction.

Evidence-Based Practices

Evidence-based practices are those that are supported by research and have positive outcomes for students.

The following examples have been adapted and can be found at Accommodation Central, courtesy of Region 13.

Content and Language Supports

Allows for various types of assistance to support a student's understanding of selections, test questions, and answer choices.

Examples:

- Isolate specific text or information in a selection, in a question, and in a graphic or list that is referenced in the question or answer choices.
- Define vocabulary terms.
- Apply an allowable supplement aid (e.g., graphic organizer, t-chart, graphic or mathematical concept) to specific question or answer choices.

How to implement:

1. Identify the appropriate level of support according to the student's need and the instructional task to be completed.
2. Develop resources for the student's use such as clarifying vocabulary words, rewording complex questions, paraphrasing excerpts, and providing definitions, visual representations (i.e. pictures, photographs, animations), or pre-reading text prior to a selection.
3. Collaborate with technology staff for websites, apps, and other tech tools that can replicate the functionality of the online features available on the state assessment.
4. Teach the student how to use the supports through modeling and think alouds. Use clear expectations so the student understands how to use them appropriately in a variety of situations and environments.
5. Lead guided practice and provide authentic opportunities for independent practice
6. Monitor and record the student's progress and the effectiveness of the supports.
7. Provide feedback to the student.
8. Share progress and effectiveness with the student, the educational team, and the family.

Scaffold Steps in a Process

Reformat complex concepts into individual steps to improve accessibility for a student struggling with memory, attention, focus, or comprehension.

Examples:

- Create a bulleted list of steps.
- Space out each step required to understand a concept.

How to implement:

1. Determine the process that requires support, based on your knowledge of the student's needs.
2. Create a step-by-step process to review with the student.
3. Schedule time to teach the student to properly use the tool or process and model appropriate use of the support using a think-aloud process.
4. Lead guided practice using the tool or process, providing immediate supportive and corrective feedback.
5. Assign and monitor independent practice using the tool or process.
6. Monitor and record the student's progress and the effectiveness of the accommodation.

Worked Example

Educator provides a step-by-step demonstration of how to complete a task or solve a problem during the initial acquisition of a skill.

Example:

Anchor chart

How to implement:

1. Determine the task or problem that requires support, based on your knowledge of the student's needs.
2. Create a worked example demonstrating the task or problem-solving process.
3. Schedule time to teach the student to use the worked example as a reference, using a think-aloud process.
4. Lead guided practice using the worked example, providing immediate supportive and corrective feedback.
5. Assign and monitor independent practice using the worked example.
6. Monitor and record the student's progress and the effectiveness of the accommodation.
7. Make plans to fade the support provided by the worked example and to increase the student's independence.
8. Share progress and effectiveness with the student, the educational team, and the family.

Evidence-Based Practices

Word Walls

A collection of words displayed on classroom walls, windows, or bulletin boards that functions as a visual scaffold and helps the student to learn new vocabulary.

Example:
Specific terminology

How to implement:

1. Identify which words to display based on the student's needs and the content to be covered.
2. Display the word wall where the student can see it and read the words from his or her desk.
3. Teach the student how to use the word wall and model using it in a variety of contexts.
4. Practice by referring to and using the word wall daily.
5. Update the word wall. Add new words intentionally, and remove words that have been mastered.
6. Monitor and record the student's progress and effectiveness using the word wall.

Sentence Stems

Sentence stems give the student an opportunity to effectively communicate using complete sentences. They can be used when asking a student for oral and written responses.

Examples:

- That reminds me of …
- I predict that …
- I have a connection to …

How to implement:

1. Determine the language proficiency and specific needs of the student.
2. Develop sentence stems that apply to the student at various levels of language proficiency.
3. Place sentence stems in a prominent part of the room or give them to the student.
4. Teach the student how to use sentence stems in a variety of contexts and with a variety of content.
5. Lead guided practice in how to use sentence stems. Provide lots of opportunities for the student to practice using sentence stems with peers and independently.
6. Monitor and record the student's progress and effectiveness using the sentence stems.
7. Provide specific feedback to the student about his or her progress.
8. Scaffold the student's learning by increasing the rigor of sentence stems based on student progress and need.

Side–by–Side Example
Standard Module with Embedded Specially Designed Instruction

The following is a side-by-side comparison of a Carnegie Learning Texas Math Solution (6-12) module and a module that has SDI embedded. It also includes areas of collaboration between professionals that occurs prior to the lesson.

Lesson Instruction Overview	General Lesson: Pilot Carnegie Learning Texas Math Solution (6-12) Activity 1.3: Solving Systems by Substitution	Specially Designed Instruction	Collaboration of Teachers Prior to Lesson
Activity 1.3: Solving Systems by Substitution **Facilitation Notes** In this activity, students write system of linear equations to represent real-world situations, use substitution to solve them, and interpret the solutions.	Have students work with a partner or in a group to complete Question 1. **Questions to ask for Question 1** • How many adults and children bought admission tickets? • What information in the problem situation helped you determine the attendance equation? • Do all of the terms in this first equation represent numbers of people? • What expression did you use to represent the money generated from the number of adult admissions? • What expression did you use to represent the money generated from the number of child admissions? • Do all of the terms in the second equation represent an amount of money? • Does it make a different which variable, *x* or *y*, we solve for? • Looking at the two equations, what would you expect the graph of this linear system to look like? • Where is the solution to the linear system of equations located on the graph? • How would you write this solution as an ordered pair? • How can you tell from the equations that this linear system has a solution? Have students work with a partner or in a group to complete Question 2. Share responses as a class.	Highlight and preteach key words in the introduction and discuss with Darren in a small-group prior to the lesson. Provide a list of thinking process steps, such as The Modeling Process, from Carnegie Learning Texas Math Solution, and use a co-teach approach to model the use of the The Modeling Process visually and verbally by showing how to use the The Modeling Process while solving a problem. Simultaneously, both teachers verbalize their meta-cognitive processes using the appropriate key terms for the lesson/module. Provide feedback to Darren and his partner as they practice Questions 1 and 2. Ask the questions while he works to improve his understanding of the work as well as practicing to improve the likelihood that Darren will share his thinking with the class.	Collaboratively determine the key words and the definitions the special educator will preteach to Darren prior to the lesson. Collaborate regarding the most common misconceptions so that both teachers understand how to provide corrective feedback if those misconceptions occur. Have model problems and examples prepared. Provide Darren sentence stems to support answers to the questions that will be posed.

Side–by–Side Example
Standard Module with Embedded Specially Designed Instruction

Lesson Instruction Overview	General Lesson: Pilot Carnegie Learning Texas Math Solution (6-12) Activity 1.3: Solving Systems by Substitution	Specially Designed Instruction	Collaboration of Teachers Prior to Lesson
	Questions to ask for Question 2 Which equation makes more sense in this situation, $y=x+20$ or $x=y+20$? • Are all of the terms in one of the equations associated with money? • Is 4000 seats used to write either equation? • Did you solve this system of linear equations for the value of x or the value of y? • Is it easier to solve this equation for the value of x or the value of y? Explain • How is substitution used to solve this system of equations? • How would you write this solution as an ordered pair? Have students work with a partner or in a group to complete Question 3 through 5. Share responses as a class. **Question to ask for Question 3** • Which equation makes more sense in this situation, $x+y=20$ or $x+y=100$? • Are all of the terms in one of the equations associated with the number of questions on the test? • Are all of the terms in one of the equations associated with the number of points on the test? • Did you solve this system of linear equations for the value of x or the value of y? • Is it easier to solve this equation for the value of x or the value of y? • How is substitution used to solve this system of equations? • How would you write this solution as an ordered pair?	While students are working through each of the five stations, the teacher can pull Darren for small group instruction if needed.	

Side–by–Side Example
Standard Module with Embedded Specially Designed Instruction

Lesson Instruction Overview	General Lesson: Pilot Carnegie Learning Texas Math Solution (6-12) Activity 1.3: Solving Systems by Substitution	Specially Designed Instruction	Collaboration of Teachers Prior to Lesson
	Questions to ask for Question 4 • Which equation makes more sense in this situation, $y=x+20$ or $x=y+20$? • Are all of the terms in one of the equations associated with money? • Is 4000 seats used to write either equation? • Did you solve this system of linear equations for the value of x or the value of y? • Is it easier to solve this equation for the value of x or the value of y? Explain • How is substitution used to solve this system of equations? • How would you write this solution as an ordered pair? **Question to ask for Question 5** • What information in the problem situation helped you to determine the equation describing the first job offer? What is the constant? What is changing? • Is the equation written in standard form or slope-intercept form? • What information in the problem situation helped you to determine the equation describing the second job offer? What is the constant? What is changing? • How would you write this solution as an ordered pair? • What is a good reason for Alex to take the first job offer? • What is a good reason for Alex to take the second job offer? • What is a reason Alex should not take the first job offer? • What is a reason Alex should not take the second job offer?		

Accommodations, Modifications, Differentiation, Language, and Specialization Supports Found Within Carnegie Learning Texas Math Solution (6-12)

English Language Development

Emergent Bilingual Tips:
These tips support the development of student growth in the areas of language development by providing concepts for review and supporting students in developing their own understanding of new terminology.

Embedded English Language Proficiency Standards (ELPS):
https://www.txel.org/ELPS

Key Terms:
Key terms are provided at the beginning of a lesson to support language development.

Students can access the Mathematics Glossaries within the online Texas Math Solution Support Center: https://www.carnegielearning.com/texas-help/students-caregivers/

Differentiation Supports

Differentiation strategies are included in the lessons to support additional learning pathways for students.

These tips support the development of student growth in the areas of language development by providing concepts for review and supporting students in developing their own understanding of new terminology.

Differentiation strategy for the Getting Started Activity:

Have students present their solution strategies, being selective in the order they are presented. Begin with diagram models and build to more abstract algebraic models. Ask questions to make connections among the models.

Activity 1.1

To scaffold support, have students interact with the Worked Example.

- Have them label the equations first and second equation according to the Worked Example.
- For step 1, have them draw a box around $8x$ in the equation $y=8x$ to make it explicit what they are **substituting for *y*.**
- After going through the Worked Example, have them redo the steps in the margin by following the directions to solidify the process in their minds.
- Have students write the answer as an ordered pair. This step is automatic for students when reading an answer from a graph. They should be comfortable writing answers in ordered pair notation regardless of the method used to solve system of equations.

Activity 1.3

This part of the lesson includes five problems. Create five stations in the classroom, with each station providing the information for one problem. Have students cycle through the stations, completing each problem within given time constraints.

Accommodations, Modifications, Differentiation, Language, and Specialization Supports Found Within Carnegie Learning Texas Math Solution (6-12)

Additional supports that might be used during instruction of Carnegie Learning Texas Math Solution (6-12) lessons based on student needs.	
Mnemonic Device such as: • PEMDAS = Please Excuse My Dear Aunt Sally • DMSB = Dad, Mother, Sister, Brother	**Blank Graphic Organizers as suggestions to organize information:** • KWL (Know, Wonder, Learn) charts • Blank number lines
Vocabulary Development: • Frayer Model • Interactive notebooks • Foldables	**Links to TEA Resources:** • STAAR Reference Materials & Graph Paper: https://tea.texas.gov/student-assessment/testing/staar/staar-mathematics-resources • Interactive Math Glossary: https://www.texasgateway.org/resource/interactive-math-glossary

Resources

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