Subject	§126. Technology Applications			
Course Title	§126.33. Computer Science I (One-Half to One Credit), Beginning with School Year 2012-2013.			
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(a) General Requirements. Students shall be awarded one-half to one credit for successful completion of this course. The required prerequisite for this course is Algebra I. This course is recommended for students in Grades 9-12.				
(b) Introduction.				
(1) The technology applications curriculum has six strands based on the National Educational Technology Standards (NET•S) and performance indicators for The technology applications curriculum has six strands based on the National Educational Technology Standards for Students (NETS•S) and performance indicators developed by the International Society for Technology in Education (ISTE): creativity and innovation; communication and collaboration; research and information fluency; critical thinking, problem solving, and decision making; digital citizenship; and technology operations and concepts.				
(2) Computer Science I is designed to foster students' creativity and innovation by presenting opportunities to design, implement and present meaningful programs through a variety of media. Students will collaborate with one another, their instructor and with various electronic communities to solve the problems presented throughout the course. Data analysis will include the identification of task requirements, planning search strategies and the use of computer science concepts to access, analyze, and evaluate information needed to solve problems. By using computer science knowledge and skills that supports the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create a solution, and evaluate the results. Students will learn to become good digital citizens by practicing integrity and respect throughout the Computer Science I course. Students will gain an understanding of the principles of computer science through the study of technology operations, systems, and concepts.				
(3) Statements that contain the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.				
(c) Knowledge and Skills.				
(1) Creativity and innovation. The student develops products and generates new understandings by extending existing knowledge. The student is expected to:	(A) participate with electronic communities as a learner, initiator, contributor, and teacher/mentor	(i) participate with electronic communities as a learner		
(1) Creativity and innovation. The student develops products and generates new understandings by extending existing knowledge. The student is expected to:	(A) participate with electronic communities as a learner, initiator, contributor, and teacher/mentor	(ii) participate with electronic communities as a[n] initiator		
(1) Creativity and innovation. The student develops products and generates new understandings by extending existing knowledge. The student is expected to:	(A) participate with electronic communities as a learner, initiator, contributor, and teacher/mentor	(iii) participate with electronic communities as a contributor		

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TEKS (Knowledge and	**Student Expectation**	**Breakout**	**Element**	**Subelement**
(1) Creativity and innovation. The student develops products and generates new understandings by extending existing knowledge. The student is expected to:	(A) participate with electronic communities as a learner, initiator, contributor, and teacher/mentor	(iv) participate with electronic communities as a teacher/mentor		
(1) Creativity and innovation. The student develops products and generates new understandings by extending existing knowledge. The student is expected to:	(B) extend the learning environment beyond the school walls with digital products created to increase teaching and learning in the other subject areas	(i) extend the learning environment beyond the school walls with digital products created to increase teaching in the other subject areas		
(1) Creativity and innovation. The student develops products and generates new understandings by extending existing knowledge. The student is expected to:	(B) extend the learning environment beyond the school walls with digital products created to increase teaching and learning in the other subject areas	(ii) extend the learning environment beyond the school walls with digital products created to increase learning in the other subject areas		
(1) Creativity and innovation. The student develops products and generates new understandings by extending existing knowledge. The student is expected to:	(C) participate in relevant, meaningful activities in the larger community and society to create electronic projects	(i) participate in relevant activities in the larger community to create electronic projects		
(1) Creativity and innovation. The student develops products and generates new understandings by extending existing knowledge. The student is expected to:	(C) participate in relevant, meaningful activities in the larger community and society to create electronic projects	(ii) participate in relevant activities in society to create electronic projects		
(1) Creativity and innovation. The student develops products and generates new understandings by extending existing knowledge. The student is expected to:	(C) participate in relevant, meaningful activities in the larger community and society to create electronic projects	(iii) participate in meaningful activities in the larger community to create electronic projects		

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TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(1) Creativity and innovation. The student develops products and generates new understandings by extending existing knowledge. The student is expected to:	(C) participate in relevant, meaningful activities in the larger community and society to create electronic projects	(iv) participate in meaningful activities in society to create electronic projects		
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(A) create and properly display meaningful output	(i) create meaningful output		
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(A) create and properly display meaningful output	(ii) properly display meaningful output		
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(B) create interactive console display interfaces, with appropriate user prompts, to acquire data from a user			
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(C) use Graphical User Interfaces (GUIs) to create interactive interfaces to acquire data from a user and display program results	(i) use Graphical User Interfaces (GUIs) to create interactive interfaces to acquire data from a user		

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TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(C) use Graphical User Interfaces (GUIs) to create interactive interfaces to acquire data from a user and display program results	(ii) use Graphical User Interfaces (GUIs) to create interactive interfaces to display program results		
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(D) write programs with proper programming style to enhance the readability and functionality of the code by using meaningful descriptive identifiers, internal comments, white space, spacing, indentation, and a standardized program style	(i) write programs with proper programming style to enhance the readability of the code by using meaningful descriptive identifiers		
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(D) write programs with proper programming style to enhance the readability and functionality of the code by using meaningful descriptive identifiers, internal comments, white space, spacing, indentation, and a standardized program style	(ii) write programs with proper programming style to enhance the readability of the code by using internal comments		
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(D) write programs with proper programming style to enhance the readability and functionality of the code by using meaningful descriptive identifiers, internal comments, white space, spacing, indentation, and a standardized program style	(iii) write programs with proper programming style to enhance the readability of the code by using white space		

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TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(D) write programs with proper programming style to enhance the readability and functionality of the code by using meaningful descriptive identifiers, internal comments, white space, spacing, indentation, and a standardized program style	(iv) write programs with proper programming style to enhance the readability of the code by using spacing		
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(D) write programs with proper programming style to enhance the readability and functionality of the code by using meaningful descriptive identifiers, internal comments, white space, spacing, indentation, and a standardized program style	(v) write programs with proper programming style to enhance the readability of the code by using indentation		
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(D) write programs with proper programming style to enhance the readability and functionality of the code by using meaningful descriptive identifiers, internal comments, white space, spacing, indentation, and a standardized program style	(vi) write programs with proper programming style to enhance the readability of the code by using a standardized program style		
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(D) write programs with proper programming style to enhance the readability and functionality of the code by using meaningful descriptive identifiers, internal comments, white space, spacing, indentation, and a standardized program style	(vii) write programs with proper programming style to enhance the functionality of the code by using meaningful descriptive identifiers		

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TEKS (Knowledge and	**Student Expectation**	**Breakout**	**Element**	**Subelement**
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(D) write programs with proper programming style to enhance the readability and functionality of the code by using meaningful descriptive identifiers, internal comments, white space, spacing, indentation, and a standardized program style	(viii) write programs with proper programming style to enhance the functionality of the code by using internal comments		
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(D) write programs with proper programming style to enhance the readability and functionality of the code by using meaningful descriptive identifiers, internal comments, white space, spacing, indentation, and a standardized program style	(ix) write programs with proper programming style to enhance the functionality of the code by using white space		
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(D) write programs with proper programming style to enhance the readability and functionality of the code by using meaningful descriptive identifiers, internal comments, white space, spacing, indentation, and a standardized program style	(x) write programs with proper programming style to enhance the functionality of the code by using spacing		
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(D) write programs with proper programming style to enhance the readability and functionality of the code by using meaningful descriptive identifiers, internal comments, white space, spacing, indentation, and a standardized program style	(xi) write programs with proper programming style to enhance the functionality of the code by using indentation		

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TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(D) write programs with proper programming style to enhance the readability and functionality of the code by using meaningful descriptive identifiers, internal comments, white space, spacing, indentation, and a standardized program style	(xii) write programs with proper programming style to enhance the functionality of the code by using a standardized program style		
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(E) improve numeric display by optimizing data visualization			
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(F) display simple vector graphics using lines, circles and rectangles	(i) display simple vector graphics using lines		
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(F) display simple vector graphics using lines, circles and rectangles	(ii) display simple vector graphics using circles		
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(F) display simple vector graphics using lines, circles and rectangles	(iii) display simple vector graphics using rectangles		

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(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(G) display simple bit map images			
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(H) seek and respond to advice from peers and professionals in evaluating quality and accuracy	(i) seek advice from peers in evaluating quality		
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(H) seek and respond to advice from peers and professionals in evaluating quality and accuracy	(ii) seek advice from peers in evaluating accuracy		
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(H) seek and respond to advice from peers and professionals in evaluating quality and accuracy	(iii) seek advice from professionals in evaluating quality		
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(H) seek and respond to advice from peers and professionals in evaluating quality and accuracy	(iv) seek advice from professionals in evaluating accuracy		

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(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(H) seek and respond to advice from peers and professionals in evaluating quality and accuracy	(v) respond to advice from peers in evaluating quality		
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(H) seek and respond to advice from peers and professionals in evaluating quality and accuracy	(vi) respond to advice from peers in evaluating accuracy		
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(H) seek and respond to advice from peers and professionals in evaluating quality and accuracy	(vii) respond to advice from professionals in evaluating quality		
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(H) seek and respond to advice from peers and professionals in evaluating quality and accuracy	(viii) respond to advice from professionals in evaluating accuracy		
(3) Research and information fluency. The student locates, analyzes, processes, and organizes data. The student is expected to:	(A) use a variety of resources, including foundation and enrichment curricula, to gather authentic data as a basis for individual and group programming projects	(i) use a variety of resources, including foundation curricula, to gather authentic data as a basis for individual programming projects		

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(3) Research and information fluency. The student locates, analyzes, processes, and organizes data. The student is expected to:	(A) use a variety of resources, including foundation and enrichment curricula, to gather authentic data as a basis for individual and group programming projects	(ii) use a variety of resources, including foundation curricula, to gather authentic data as a basis for group programming projects		
(3) Research and information fluency. The student locates, analyzes, processes, and organizes data. The student is expected to:	(A) use a variety of resources, including foundation and enrichment curricula, to gather authentic data as a basis for individual and group programming projects	(iii) use a variety of resources, including enrichment curricula, to gather authentic data as a basis for individual programming projects		
(3) Research and information fluency. The student locates, analyzes, processes, and organizes data. The student is expected to:	(A) use a variety of resources, including foundation and enrichment curricula, to gather authentic data as a basis for individual and group programming projects	(iv) use a variety of resources, including enrichment curricula, to gather authentic data as a basis for group programming projects		
(3) Research and information fluency. The student locates, analyzes, processes, and organizes data. The student is expected to:	(B) use various productivity tools to gather authentic data as a basis for individual and group programming projects	(i) use various productivity tools to gather authentic data as a basis for individual programming projects		
(3) Research and information fluency. The student locates, analyzes, processes, and organizes data. The student is expected to:	(B) use various productivity tools to gather authentic data as a basis for individual and group programming projects	(ii) use various productivity tools to gather authentic data as a basis for group programming projects		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(A) use program design problem-solving strategies to create program solutions			

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TEKS (Knowledge and	**Student Expectation**	**Breakout**	**Element**	**Subelement**
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(B) define and specify the purpose and goals of solving a problem	(i) define the purpose of solving a problem		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(B) define and specify the purpose and goals of solving a problem	(ii) define the goals of solving a problem		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(B) define and specify the purpose and goals of solving a problem	(iii) specify the purpose of solving a problem		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(B) define and specify the purpose and goals of solving a problem	(iv) specify the goals of solving a problem		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(C) identify the subtasks needed to solve a problem			
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(D) identify the data types and objects needed to solve a problem	(i) identify the data types needed to solve a problem		

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(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(D) identify the data types and objects needed to solve a problem	(ii) identify the objects needed to solve a problem		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(E) identify reusable components from existing code			
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(F) design a solution to a problem			
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(G) code a solution from a program design			
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(H) identify and debug errors	(i) identify errors		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(H) identify and debug errors	(ii) debug errors		

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TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(I) test program solutions with appropriate valid and invalid test data for correctness	(i) test program solutions with appropriate valid test data for correctness		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(I) test program solutions with appropriate valid and invalid test data for correctness	(ii) test program solutions with appropriate invalid test data for correctness		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(J) debug and solve problems using error messages, reference materials, language documentation, and effective strategies	(i) debug problems using error messages		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(J) debug and solve problems using error messages, reference materials, language documentation, and effective strategies	(ii) debug problems using reference materials		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(J) debug and solve problems using error messages, reference materials, language documentation, and effective strategies	(iii) debug problems using language documentation		

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(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(J) debug and solve problems using error messages, reference materials, language documentation, and effective strategies	(iv) debug problems using effective strategies		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(J) debug and solve problems using error messages, reference materials, language documentation, and effective strategies	(v) solve problems using error messages		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(J) debug and solve problems using error messages, reference materials, language documentation, and effective strategies	(vi) solve problems using reference materials		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(J) debug and solve problems using error messages, reference materials, language documentation, and effective strategies	(vii) solve problems using language documentation		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(J) debug and solve problems using error messages, reference materials, language documentation, and effective strategies	(viii) solve problems using effective strategies		

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TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(K) explore common algorithms, including greatest common divisor, finding the biggest number out of three, finding primes, making change, and finding the average	(i) explore common algorithms, including greatest common divisor		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(K) explore common algorithms, including greatest common divisor, finding the biggest number out of three, finding primes, making change, and finding the average	(ii) explore common algorithms, including finding the biggest number out of three		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(K) explore common algorithms, including greatest common divisor, finding the biggest number out of three, finding primes, making change, and finding the average	(iii) explore common algorithms, including finding primes		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(K) explore common algorithms, including greatest common divisor, finding the biggest number out of three, finding primes, making change, and finding the average	(iv) explore common algorithms, including making change		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(K) explore common algorithms, including greatest common divisor, finding the biggest number out of three, finding primes, making change, and finding the average	(v) explore common algorithms, including finding the average		

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(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(L) analyze and modify existing code to improve the underlying algorithm	(i) analyze existing code to improve the underlying algorithm		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(L) analyze and modify existing code to improve the underlying algorithm	(ii) modify existing code to improve the underlying algorithm		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(M) create program solutions that exhibit robust behavior by understanding, avoiding, and preventing runtime errors, including division by zero and type mismatch	(i) create program solutions that exhibit robust behavior by understanding runtime errors, including division by zero		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(M) create program solutions that exhibit robust behavior by understanding, avoiding, and preventing runtime errors, including division by zero and type mismatch	(ii) create program solutions that exhibit robust behavior by understanding runtime errors, including type mismatch		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(M) create program solutions that exhibit robust behavior by understanding, avoiding, and preventing runtime errors, including division by zero and type mismatch	(iii) create program solutions that exhibit robust behavior by avoiding runtime errors, including division by zero		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(M) create program solutions that exhibit robust behavior by understanding, avoiding, and preventing runtime errors, including division by zero and type mismatch	(iv) create program solutions that exhibit robust behavior by avoiding runtime errors, including type mismatch		

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(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(M) create program solutions that exhibit robust behavior by understanding, avoiding, and preventing runtime errors, including division by zero and type mismatch	(v) create program solutions that exhibit robust behavior by preventing runtime errors, including division by zero		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(M) create program solutions that exhibit robust behavior by understanding, avoiding, and preventing runtime errors, including division by zero and type mismatch	(vi) create program solutions that exhibit robust behavior by preventing runtime errors, including type mismatch		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(N) select the most appropriate algorithm for a defined problem			
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(O) demonstrate proficiency in the use of the arithmetic operators to create mathematical expressions, including addition, subtraction, multiplication, real division, integer division and modulus division	(i) demonstrate proficiency in the use of the arithmetic operators to create mathematical expressions, including addition		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(O) demonstrate proficiency in the use of the arithmetic operators to create mathematical expressions, including addition, subtraction, multiplication, real division, integer division and modulus division	(ii) demonstrate proficiency in the use of the arithmetic operators to create mathematical expressions, including subtraction		

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(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(O) demonstrate proficiency in the use of the arithmetic operators to create mathematical expressions, including addition, subtraction, multiplication, real division, integer division and modulus division	(iii) demonstrate proficiency in the use of the arithmetic operators to create mathematical expressions, including multiplication		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(O) demonstrate proficiency in the use of the arithmetic operators to create mathematical expressions, including addition, subtraction, multiplication, real division, integer division and modulus division	(iv) demonstrate proficiency in the use of the arithmetic operators to create mathematical expressions, including real division		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(O) demonstrate proficiency in the use of the arithmetic operators to create mathematical expressions, including addition, subtraction, multiplication, real division, integer division and modulus division	(v) demonstrate proficiency in the use of the arithmetic operators to create mathematical expressions, including integer division		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(O) demonstrate proficiency in the use of the arithmetic operators to create mathematical expressions, including addition, subtraction, multiplication, real division, integer division and modulus division	(vi) demonstrate proficiency in the use of the arithmetic operators to create mathematical expressions, including modulus division		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(P) create program solutions to problems using available mathematics libraries, including absolute value, round, power, square, and square root	(i) create program solutions to problems using available mathematics libraries, including absolute value		

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Course Title	§126.33. Computer Science I (One-Half to One Credit), Beginning with School Year 2012-2013.			
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(P) create program solutions to problems using available mathematics libraries, including absolute value, round, power, square, and square root	(ii) create program solutions to problems using available mathematics libraries, including round		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(P) create program solutions to problems using available mathematics libraries, including absolute value, round, power, square, and square root	(iii) create program solutions to problems using available mathematics libraries, including power		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(P) create program solutions to problems using available mathematics libraries, including absolute value, round, power, square, and square root	(iv) create program solutions to problems using available mathematics libraries, including square		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(P) create program solutions to problems using available mathematics libraries, including absolute value, round, power, square, and square root	(v) create program solutions to problems using available mathematics libraries, including square root		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(Q) develop program solutions that use assignment			
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(R) develop sequential algorithms to solve non-branching and non-iterative problems	(i) develop sequential algorithms to solve non-branching problems		

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Course Title	§126.33. Computer Science I (One-Half to One Credit), Beginning with School Year 2012-2013.			
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(R) develop sequential algorithms to solve non-branching and non-iterative problems	(ii) develop sequential algorithms to solve non-iterative problems		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(S) develop algorithms to decision-making problems using branching control statements			
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(T) develop iterative algorithms and code programs to solve practical problems	(i) develop iterative algorithms to solve practical problems		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(T) develop iterative algorithms and code programs to solve practical problems	(ii) develop code programs to solve practical problems		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(U) demonstrate proficiency in the use of the relational operators			
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(V) demonstrate proficiency in the use of the logical operators			

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Course Title	§126.33. Computer Science I (One-Half to One Credit), Beginning with School Year 2012-2013.			
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(W) generate and use random numbers	(i) generate random numbers		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(W) generate and use random numbers	(ii) use random numbers		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(A) discuss intellectual property, privacy, sharing of information, copyright laws, and software licensing agreements	(i) discuss intellectual property		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(A) discuss intellectual property, privacy, sharing of information, copyright laws, and software licensing agreements	(ii) discuss privacy		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(A) discuss intellectual property, privacy, sharing of information, copyright laws, and software licensing agreements	(iii) discuss sharing of information		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(A) discuss intellectual property, privacy, sharing of information, copyright laws, and software licensing agreements	(iv) discuss copyright laws		

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Course Title	§126.33. Computer Science I (One-Half to One Credit), Beginning with School Year 2012-2013.			
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(A) discuss intellectual property, privacy, sharing of information, copyright laws, and software licensing agreements	(v) discuss software licensing agreements		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(B) model ethical acquisition and use of digital information	(i) model ethical acquisition of digital information		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(B) model ethical acquisition and use of digital information	(ii) model ethical use of digital information		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(C) demonstrate proper digital etiquette, responsible use of software, and knowledge of acceptable use policies	(i) demonstrate proper digital etiquette		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(C) demonstrate proper digital etiquette, responsible use of software, and knowledge of acceptable use policies	(ii) demonstrate responsible use of software		

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Course Title	§126.33. Computer Science I (One-Half to One Credit), Beginning with School Year 2012-2013.			
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(C) demonstrate proper digital etiquette, responsible use of software, and knowledge of acceptable use policies	(iii) demonstrate knowledge of acceptable use policies		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(D) investigate measures, including passwords and virus detection/prevention, to protect computer systems and databases from unauthorized use and tampering	(i) investigate measures, including passwords to protect computer systems from unauthorized use		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(D) investigate measures, including passwords and virus detection/prevention, to protect computer systems and databases from unauthorized use and tampering	(ii) investigate measures, including passwords to protect computer systems from tampering		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(D) investigate measures, including passwords and virus detection/prevention, to protect computer systems and databases from unauthorized use and tampering	(iii) investigate measures, including passwords to protect databases from unauthorized use		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(D) investigate measures, including passwords and virus detection/prevention, to protect computer systems and databases from unauthorized use and tampering	(iv) investigate measures, including passwords to protect databases from tampering		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(D) investigate measures, including passwords and virus detection/prevention, to protect computer systems and databases from unauthorized use and tampering	(v) investigate measures, including virus detection/prevention to protect computer systems from unauthorized use		

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Course Title	§126.33. Computer Science I (One-Half to One Credit), Beginning with School Year 2012-2013.			
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(D) investigate measures, including passwords and virus detection/prevention, to protect computer systems and databases from unauthorized use and tampering	(vi) investigate measures, including virus detection/prevention to protect computer systems from tampering		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(D) investigate measures, including passwords and virus detection/prevention, to protect computer systems and databases from unauthorized use and tampering	(vii) investigate measures, including virus detection/prevention to protect databases from unauthorized use		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(D) investigate measures, including passwords and virus detection/prevention, to protect computer systems and databases from unauthorized use and tampering	(viii) investigate measures, including virus detection/prevention to protect databases from tampering		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(E) investigate how technology has changed and the social and ethical ramifications of computer usage	(i) investigate how technology has changed		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(E) investigate how technology has changed and the social and ethical ramifications of computer usage	(ii) investigate the social ramifications of computer usage		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(E) investigate how technology has changed and the social and ethical ramifications of computer usage	(iii) investigate the ethical ramifications of computer usage		

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Course Title	§126.33. Computer Science I (One-Half to One Credit), Beginning with School Year 2012-2013.			
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(A) compare and contrast types of operating systems, software applications, and programming languages	(i) compare types of operating systems, software applications, and programming languages		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(A) compare and contrast types of operating systems, software applications, and programming languages	(ii) contrast types of operating systems, software applications, and programming languages		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(B) demonstrate knowledge of major hardware components, including primary and secondary memory, a central processing unit (CPU), and peripherals	(i) demonstrate knowledge of major hardware components, including primary memory		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(B) demonstrate knowledge of major hardware components, including primary and secondary memory, a central processing unit (CPU), and peripherals	(ii) demonstrate knowledge of major hardware components, including secondary memory		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(B) demonstrate knowledge of major hardware components, including primary and secondary memory, a central processing unit (CPU), and peripherals	(iii) demonstrate knowledge of major hardware components, including a central processing unit (CPU)		

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Course Title	§126.33. Computer Science I (One-Half to One Credit), Beginning with School Year 2012-2013.			
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(B) demonstrate knowledge of major hardware components, including primary and secondary memory, a central processing unit (CPU), and peripherals	(iv) demonstrate knowledge of major hardware components, including peripherals		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(C) differentiate among current programming languages, discuss the use of those languages in other fields of study, and demonstrate knowledge of specific programming terminology and concepts	(i) differentiate between current programming languages		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(C) differentiate among current programming languages, discuss the use of those languages in other fields of study, and demonstrate knowledge of specific programming terminology and concepts	(ii) discuss the use of [current programming] languages in other fields of study		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(C) differentiate among current programming languages, discuss the use of those languages in other fields of study, and demonstrate knowledge of specific programming terminology and concepts	(iii) demonstrate knowledge of specific programming terminology		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(C) differentiate among current programming languages, discuss the use of those languages in other fields of study, and demonstrate knowledge of specific programming terminology and concepts	(iv) demonstrate knowledge of specific programming concepts		

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TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(D) differentiate between a high-level compiled language and an interpreted language			
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(E) understand concepts of object-oriented design			
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(F) use local and global scope access variable declarations	(i) use local scope access variable declarations		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(F) use local and global scope access variable declarations	(ii) use global scope access variable declarations		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(G) encapsulate data and associated subroutines into an abstract data type	(i) encapsulate data into an abstract data type		

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TEKS (Knowledge and	**Student Expectation**	**Breakout**	**Element**	**Subelement**
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(G) encapsulate data and associated subroutines into an abstract data type	(ii) encapsulate associated subroutines into an abstract data type		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(H) create subroutines that do not return values with and without the use of arguments and parameters	(i) create subroutines that do not return values with the use of arguments		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(H) create subroutines that do not return values with and without the use of arguments and parameters	(ii) create subroutines that do not return values with the use of parameters		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(H) create subroutines that do not return values with and without the use of arguments and parameters	(iii) create subroutines that do not return values without the use of arguments		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(H) create subroutines that do not return values with and without the use of arguments and parameters	(iv) create subroutines that do not return values without the use of parameters		

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Course Title	§126.33. Computer Science I (One-Half to One Credit), Beginning with School Year 2012-2013.			
TEKS (Knowledge and	**Student Expectation**	**Breakout**	**Element**	**Subelement**
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(I) create subroutines that return typed values with and without the use of arguments and parameters	(i) create subroutines that return typed values with the use of arguments		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(I) create subroutines that return typed values with and without the use of arguments and parameters	(ii) create subroutines that return typed values with the use of parameters		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(I) create subroutines that return typed values with and without the use of arguments and parameters	(iii) create subroutines that return typed values without the use of arguments		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(I) create subroutines that return typed values with and without the use of arguments and parameters	(iv) create subroutines that return typed values without the use of parameters		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(J) understand and identify the data-binding process between arguments and parameters	(i) understand the data-binding process between arguments and parameters		

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Course Title	§126.33. Computer Science I (One-Half to One Credit), Beginning with School Year 2012-2013.			
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(J) understand and identify the data-binding process between arguments and parameters	(ii) identify the data-binding process between arguments and parameters		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(K) compare objects using reference values and a comparison routine	(i) compare objects using reference values		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(K) compare objects using reference values and a comparison routine	(ii) compare objects using a comparison routine		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(L) understand the binary representation of numeric and nonnumeric data in computer systems	(i) understand the binary representation of numeric data in computer systems		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(L) understand the binary representation of numeric and nonnumeric data in computer systems	(ii) understand the binary representation of nonnumeric data in computer systems		

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Course Title	**§126.33. Computer Science I (One-Half to One Credit), Beginning with School Year 2012-2013.**			
TEKS (Knowledge and	**Student Expectation**	**Breakout**	**Element**	**Subelement**
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(M) understand the finite limits of numeric data			
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(N) perform numerical conversions between the decimal and binary number systems and count in the binary number system	(i) perform numerical conversions between the decimal and binary number systems		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(N) perform numerical conversions between the decimal and binary number systems and count in the binary number system	(ii) count in the binary number system		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(O) choose, identify, and use the appropriate data types for integer, real, and Boolean data when writing program solutions	(i) choose the appropriate data types for integer data when writing program solutions		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(O) choose, identify, and use the appropriate data types for integer, real, and Boolean data when writing program solutions	(ii) choose the appropriate data types for real data when writing program solutions		

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Course Title	§126.33. Computer Science I (One-Half to One Credit), Beginning with School Year 2012-2013.			
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(O) choose, identify, and use the appropriate data types for integer, real, and Boolean data when writing program solutions	(iii) choose the appropriate data types for Boolean data when writing program solutions		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(O) choose, identify, and use the appropriate data types for integer, real, and Boolean data when writing program solutions	(iv) identify the appropriate data types for integer data when writing program solutions		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(O) choose, identify, and use the appropriate data types for integer, real, and Boolean data when writing program solutions	(v) identify the appropriate data types for real data when writing program solutions		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(O) choose, identify, and use the appropriate data types for integer, real, and Boolean data when writing program solutions	(vi) identify the appropriate data types for Boolean data when writing program solutions		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(O) choose, identify, and use the appropriate data types for integer, real, and Boolean data when writing program solutions	(vii) use the appropriate data types for integer data when writing program solutions		

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TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(O) choose, identify, and use the appropriate data types for integer, real, and Boolean data when writing program solutions	(viii) use the appropriate data types for real data when writing program solutions		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(O) choose, identify, and use the appropriate data types for integer, real, and Boolean data when writing program solutions	(ix) use the appropriate data types for Boolean data when writing program solutions		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(P) demonstrate an understanding of the concept of a variable			
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(Q) demonstrate an understanding of and use reference variables for objects	(i) demonstrate an understanding of reference variables for objects		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(Q) demonstrate an understanding of and use reference variables for objects	(ii) use reference variables for objects		

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Course Title	§126.33. Computer Science I (One-Half to One Credit), Beginning with School Year 2012-2013.			
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(R) demonstrate an understanding of how to represent and manipulate text data, including concatenation and other string functions	(i) demonstrate an understanding of how to represent text data, including concatenation		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(R) demonstrate an understanding of how to represent and manipulate text data, including concatenation and other string functions	(ii) demonstrate an understanding of how to represent text data, including other string functions		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(R) demonstrate an understanding of how to represent and manipulate text data, including concatenation and other string functions	(iii) demonstrate an understanding of how to manipulate text data, including concatenation		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(R) demonstrate an understanding of how to represent and manipulate text data, including concatenation and other string functions	(iv) demonstrate an understanding of how to manipulate text data, including other string functions		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(S) demonstrate an understanding of the concept of scope			

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TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(T) identify and use the structured data type of one-dimensional arrays to traverse, search, and modify data	(i) identify the structured data type of one-dimensional arrays to traverse data		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(T) identify and use the structured data type of one-dimensional arrays to traverse, search, and modify data	(ii) identify the structured data type of one-dimensional arrays to search data		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(T) identify and use the structured data type of one-dimensional arrays to traverse, search, and modify data	(iii) identify the structured data type of one-dimensional arrays to modify data		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(T) identify and use the structured data type of one-dimensional arrays to traverse, search, and modify data	(iv) use the structured data type of one-dimensional arrays to traverse data		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(T) identify and use the structured data type of one-dimensional arrays to traverse, search, and modify data	(v) use the structured data type of one-dimensional arrays to search data		

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Course Title	§126.33. Computer Science I (One-Half to One Credit), Beginning with School Year 2012-2013.			
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(T) identify and use the structured data type of one-dimensional arrays to traverse, search, and modify data	(vi) use the structured data type of one-dimensional arrays to modify data		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(U) choose, identify, and use the appropriate data type and structure to properly represent the data in a program problem solution	(i) choose the appropriate data type to properly represent the data in a program problem solution		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(U) choose, identify, and use the appropriate data type and structure to properly represent the data in a program problem solution	(ii) choose the appropriate data structure to properly represent the data in a program problem solution		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(U) choose, identify, and use the appropriate data type and structure to properly represent the data in a program problem solution	(iii) identify the appropriate data type to properly represent the data in a program problem solution		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(U) choose, identify, and use the appropriate data type and structure to properly represent the data in a program problem solution	(iv) identify the appropriate data structure to properly represent the data in a program problem solution		

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TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(U) choose, identify, and use the appropriate data type and structure to properly represent the data in a program problem solution	(v) use the appropriate data type to properly represent the data in a program problem solution		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(U) choose, identify, and use the appropriate data type and structure to properly represent the data in a program problem solution	(vi) use the appropriate data structure to properly represent the data in a program problem solution		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(V) compare and contrast strongly typed and un-typed programming languages	(i) compare strongly typed and un-typed programming languages		
(6) Technology operations, systems, and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(V) compare and contrast strongly typed and un-typed programming languages	(ii) contrast strongly typed and un-typed programming languages		