

Name: Robert Lefrandt	Grading Quarter: 1	Week Beginning: 9 09/25/2023
School Year: 2023-24	Subject: Software & App Design	

Monday	<p>Notes: 09/25/2023</p> <p><u>Operators and Expressions in Python - Real Python</u></p> <p>A sequence of operands and operators, like a + b - 5, is called an <b>expression</b>. Python supports many operators for combining data objects into expressions.</p> <p>Compare other LMS's</p> <p>Harvard CS50x</p> <p>MS Visual Code Studio AI assistants</p> <p>Prompt Engineering</p> <p>APE CS AP Principles</p>	<p style="text-align: center;"><b>09/18/2023</b></p> <p>Objective: Students learn how to program</p> <ul style="list-style-type: none"> <li>Combine operators and function calls into larger expressions.</li> <li>write code that decides whether or not to perform an action</li> <li>Identify if statements in code</li> <li>Identify the condition within an if statement</li> <li>Describe how an if statement makes a decision</li> <li>identify which comparison operator is most appropriate in a given context</li> </ul> <p>Lesson Overview:</p> <p>Students will login to their Smart Tech Coders CS 201 Python accounts. Students will work though the Learning Management System (LMS) curriculum to learn Python.</p> <p><b>Unit 1: Linear Programs</b> 1.4 Expressions (5days: 5/5) <b>X =Completed, O=Introduce/Complete this week</b></p> <p>X-1.4 Expressions – Lesson Check X-1.4 Expressions Review <b>X-Unit Practice Test Review</b></p> <p><b>*** O-Review Unit 1 Test (Taken Tuesday/Wednesday)</b></p> <p>O-Apply Unit 1 Programming skills to:</p> <ul style="list-style-type: none"> <li>Panning a Program</li> <li>Code Your Own – Planning</li> <li>Code your Own</li> </ul> <p><b>O-Unit 2: Decisions</b> <b>Lesson 2.1: Conditionals (if)</b></p> <p>2.1 Unit 2 Introduction</p> <p>2.1 if Staments</p> <p>2.1 Same Name</p> <p>2.1 True or False</p> <p><b>***If finish TechSmartCoders – Python Daily Lessons and Activity library, then go to: FreeCodeCamp and work on Front/Back End Web Stack and Certifications***</b></p>	<p><b>Academic Standards:</b> AZ_CTE SoftwareAppDesign TechStandards</p> <p><b>STANDARD 1.0 APPLY PROBLEM-SOLVING AND CRITICAL THINKING SKILLS</b></p> <p><b>STANDARD 4.0 UTILIZE PRIMITIVE DATA TYPES AND STRINGS IN WRITING PROGRAMS</b></p> <p><b>STANDARD 5.0 PERFORM BASIC COMPUTER MATHEMATICS IN INFORMATION TECHNOLOGY</b> 5.3 Identify and correctly use arithmetic operations applying the order of operations (precedence) with respect to programming 5.5 Identify correct and problematic uses of integers, floating-point numbers, and fixed-point numbers in arithmetic</p> <p><b>STANDARD 12.0 DEVELOP A PROGRAM</b> 12.1 Use a program editor to enter and modify code 12.2 Identify correct input/output statements 12.10 Demonstrate the use of parameters to pass data into program modules 12.11 Demonstrate the use of return values from modules</p> <p><b>STANDARD 13.0 TEST AND DEBUG TO VERIFY PROGRAM OPERATION</b> 13.1 Identify errors in program modules</p> <p><b>STANDARD 14.0 UTILIZE AND CREATE COMMUNITY RESOURCES</b> 14.1 Use standard library functions</p>
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Tuesday	<p>Notes: 09/26/2023</p> <p><u>Operators and Expressions in Python - Real Python</u></p> <p>A sequence of operands and operators, like a + b - 5, is called an <b>expression</b>. Python supports many operators for combining data objects into expressions.</p> <p>Compare other LMS's</p> <p>Harvard CS50x</p> <p>MS Visual Code Studio AI assistants</p> <p>Prompt Engineering</p> <p>APE CS AP Principles</p>	<p>Objective: Students learn how to program</p> <ul style="list-style-type: none"> <li>Combine operators and function calls into larger expressions.</li> <li>write code that decides whether or not to perform an action</li> <li>Identify if statements in code</li> <li>Identify the condition within an if statement</li> <li>Describe how an if statement makes a decision</li> <li>identify which comparison operator is most appropriate in a given context</li> </ul> <p>Lesson Overview:</p> <p>Students will login to their Smart Tech Coders CS 201 Python accounts. Students will work though the Learning Management System (LMS) curriculum to learn Python.</p> <p><b>Unit 1: Linear Programs</b> 1.4 Expressions (5days: 5/5) <b>X =Completed, O=Introduce/Complete this week</b></p> <p>X-1.4 Expressions – Lesson Check X-1.4 Expressions Review <b>X-Unit Practice Test Review</b></p> <p><b>*** O-Review Unit 1 Test (Taken Tuesday/Wednesday)</b></p> <p>O-Apply Unit 1 Programming skills to:</p> <ul style="list-style-type: none"> <li>Panning a Program</li> <li>Code Your Own – Planning</li> <li>Code your Own</li> </ul> <p><b>O-Unit 2: Decisions</b> <b>Lesson 2.1: Conditionals (if)</b></p> <p>2.1 Unit 2 Introduction</p> <p>2.1 if Staments</p> <p>2.1 Same Name</p> <p>2.1 True or False</p> <p><b>***If finish TechSmartCoders – Python Daily Lessons and Activity library, then go to: FreeCodeCamp and work on Front/Back End Web Stack and Certifications***</b></p>	<p><b>Academic Standards:</b> AZ_CTE SoftwareAppDesign TechStandards</p> <p><b>STANDARD 1.0 APPLY PROBLEM-SOLVING AND CRITICAL THINKING SKILLS</b></p> <p><b>STANDARD 4.0 UTILIZE PRIMITIVE DATA TYPES AND STRINGS IN WRITING PROGRAMS</b></p> <p><b>STANDARD 5.0 PERFORM BASIC COMPUTER MATHEMATICS IN INFORMATION TECHNOLOGY</b> 5.3 Identify and correctly use arithmetic operations applying the order of operations (precedence) with respect to programming 5.5 Identify correct and problematic uses of integers, floating-point numbers, and fixed-point numbers in arithmetic</p> <p><b>STANDARD 12.0 DEVELOP A PROGRAM</b> 12.1 Use a program editor to enter and modify code 12.2 Identify correct input/output statements 12.10 Demonstrate the use of parameters to pass data into program modules 12.11 Demonstrate the use of return values from modules</p> <p><b>STANDARD 13.0 TEST AND DEBUG TO VERIFY PROGRAM OPERATION</b> 13.1 Identify errors in program modules</p> <p><b>STANDARD 14.0 UTILIZE AND CREATE COMMUNITY RESOURCES</b> 14.1 Use standard library functions</p>
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<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Wednesday</p>	<p>Notes: 09/27/2023</p> <p><u>Operators and Expressions in Python - Real Python</u></p> <p>A sequence of operands and operators, like a + b - 5, is called an <b>expression</b>. Python supports many operators for combining data objects into <b>expressions</b>.</p> <p>Compare other LMS's</p> <p>Harvard CS50x</p> <p>MS Visual Code Studio AI assistants</p> <p>Prompt Engineering</p> <p>APE CS AP Principles</p>	<p>Objective: Students learn how to program</p> <ul style="list-style-type: none"> <li>Combine operators and function calls into larger expressions.</li> <li>write code that decides whether or not to perform an action</li> <li>Identify if statements in code</li> <li>Identify the condition within an if statement</li> <li>Describe how an if statement makes a decision</li> <li>identify which comparison operator is most appropriate in a given context</li> </ul> <p>Lesson Overview:</p> <p>Students will login to their Smart Tech Coders CS 201 Python accounts. Students will work though the Learning Management System (LMS) curriculum to learn Python.</p> <p><b>Unit 1: Linear Programs</b> 1.4 Expressions (5days: 5/5) <b>X =Completed, O=Introduce/Complete this week</b></p> <p>X-1.4 Expressions – Lesson Check X-1.4 Expressions Review <b>X-Unit Practice Test Review</b></p> <p><b>*** O-Review Unit 1 Test (Taken Tuesday/Wednesday)</b></p> <p>O-Apply Unit 1 Programming skills to:</p> <ul style="list-style-type: none"> <li>Panning a Program</li> <li>Code Your Own – Planning</li> <li>Code your Own</li> </ul> <p><b>O-Unit 2: Decisions</b> <b>Lesson 2.1: Conditionals (if)</b></p> <p>2.1 Unit 2 Introduction</p> <p>2.1 if Staments</p> <p>2.1 Same Name</p> <p>2.1 True or False</p> <p><b>***If finish TechSmartCoders – Python Daily Lessons and Activity library, then go to: FreeCodeCamp and work on Front/Back End Web Stack and Certifications***</b></p>	<p><b>Academic Standards:</b> AZ_CTE SoftwareAppDesign TechStandards</p> <p><b>STANDARD 1.0 APPLY PROBLEM-SOLVING AND CRITICAL THINKING SKILLS</b></p> <p><b>STANDARD 4.0 UTILIZE PRIMITIVE DATA TYPES AND STRINGS IN WRITING PROGRAMS</b></p> <p><b>STANDARD 5.0 PERFORM BASIC COMPUTER MATHEMATICS IN INFORMATION TECHNOLOGY</b> 5.3 Identify and correctly use arithmetic operations applying the order of operations (precedence) with respect to programming 5.5 Identify correct and problematic uses of integers, floating-point numbers, and fixed-point numbers in arithmetic</p> <p><b>STANDARD 12.0 DEVELOP A PROGRAM</b> 12.1 Use a program editor to enter and modify code 12.2 Identify correct input/output statements 12.10 Demonstrate the use of parameters to pass data into program modules 12.11 Demonstrate the use of return values from modules</p> <p><b>STANDARD 13.0 TEST AND DEBUG TO VERIFY PROGRAM OPERATION</b> 13.1 Identify errors in program modules</p> <p><b>STANDARD 14.0 UTILIZE AND CREATE COMMUNITY RESOURCES</b> 14.1 Use standard library functions</p>
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Thursday	<p>Notes: 09/28/2023</p> <p><u>Operators and Expressions in Python - Real Python</u></p> <p>A sequence of operands and operators, like a + b - 5, is called an <b>expression</b>. Python supports many operators for combining data objects into <b>expressions</b>.</p> <p>Compare other LMS's</p> <p>Harvard CS50x</p> <p>MS Visual Code Studio AI assistants</p> <p>Prompt Engineering</p> <p>AFE CS AP Principles</p>	<p><b>Objective:</b> Students learn how to program</p> <ul style="list-style-type: none"> <li>Combine operators and function calls into larger expressions.</li> <li>write code that decides whether or not to perform an action</li> <li>Identify if statements in code</li> <li>Identify the condition within an if statement</li> <li>Describe how an if statement makes a decision</li> <li>identify which comparison operator is most appropriate in a given context</li> </ul> <p><b>Lesson Overview:</b></p> <p>Students will login to their Smart Tech Coders CS 201 Python accounts. Students will work though the Learning Management System (LMS) curriculum to learn Python.</p> <p><b>Unit 1: Linear Programs</b> 1.4 Expressions (5days: 5/5) <b>X =Completed, O=Introduce/Complete this week</b></p> <p>X-1.4 Expressions – Lesson Check X-1.4 Expressions Review <b>X-Unit Practice Test Review</b></p> <p><b>*** O-Review Unit 1 Test (Taken Tuesday/Wednesday)</b></p> <p>O-Apply Unit 1 Programming skills to:</p> <ul style="list-style-type: none"> <li>Panning a Program</li> <li>Code Your Own – Planning</li> <li>Code your Own</li> </ul> <p><b>O-Unit 2: Decisions</b> <b>Lesson 2.1: Conditionals (if)</b></p> <p>2.1 Unit 2 Introduction</p> <p>2.1 if Staments</p> <p>2.1 Same Name</p> <p>2.1 True or False</p> <p><b>***If finish TechSmartCoders – Python Daily Lessons and Activity library, then go to: FreeCodeCamp and work on Front/Back End Web Stack and Certifications***</b></p>	<p><b>Academic Standards:</b> AZ_CTE SoftwareAppDesign TechStandards</p> <p><b>STANDARD 1.0 APPLY PROBLEM-SOLVING AND CRITICAL THINKING SKILLS</b></p> <p><b>STANDARD 4.0 UTILIZE PRIMITIVE DATA TYPES AND STRINGS IN WRITING PROGRAMS</b></p> <p><b>STANDARD 5.0 PERFORM BASIC COMPUTER MATHEMATICS IN INFORMATION TECHNOLOGY</b> 5.3 Identify and correctly use arithmetic operations applying the order of operations (precedence) with respect to programming 5.5 Identify correct and problematic uses of integers, floating-point numbers, and fixed-point numbers in arithmetic</p> <p><b>STANDARD 12.0 DEVELOP A PROGRAM</b> 12.1 Use a program editor to enter and modify code 12.2 Identify correct input/output statements 12.10 Demonstrate the use of parameters to pass data into program modules 12.11 Demonstrate the use of return values from modules</p> <p><b>STANDARD 13.0 TEST AND DEBUG TO VERIFY PROGRAM OPERATION</b> 13.1 Identify errors in program modules</p> <p><b>STANDARD 14.0 UTILIZE AND CREATE COMMUNITY RESOURCES</b> 14.1 Use standard library functions</p>
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Friday	<p>Notes: 09/29/2023</p> <p><u>Operators and Expressions in Python - Real Python</u></p> <p>A sequence of operands and operators, like <code>a + b - 5</code>, is called an <b>expression</b>. Python supports many operators for combining data objects into expressions.</p>	<p>students learn how to program Combine operators and function calls into larger expressions.</p> <p><b>Lesson Overview:</b> Students will login to their Smart Tech Coders CS 201 Python accounts. Students will work though the Learning Management System (LMS) curriculum to learn Python.</p> <p>***Will be gone on Friday, 29, and Saturday 30, 2023 – For BRHS Chess Competition in Tuba City***</p> <p>Students work on:</p> <ul style="list-style-type: none"> <li>Smart Tech Coders CS 201 Python Unit 2 Lessons</li> <li>FreeCodeCamp Front/Back End Web Stack and Certifications***</li> </ul> <p><b>Activity Library</b></p> <p>***If finish TechSmartCoders – Python Daily Lessons and Activity library, then go to: FreeCodeCamp and work on Front/Back End Web Stack and Certifications***</p>	<p><b>Academic Standards:</b> AZ_CTE SoftwareAppDesign TechStandards</p> <p><b>STANDARD 1.0</b> APPLY PROBLEM-SOLVING AND CRITICAL THINKING SKILLS</p> <p><b>STANDARD 4.0</b> UTILIZE PRIMITIVE DATA TYPES AND STRINGS IN WRITING PROGRAMS</p> <p><b>STANDARD 5.0</b> PERFORM BASIC COMPUTER MATHEMATICS IN INFORMATION TECHNOLOGY 5.3 Identify and correctly use arithmetic operations applying the order of operations (precedence) with respect to programming 5.5 Identify correct and problematic uses of integers, floating-point numbers, and fixed-point numbers in arithmetic</p> <p><b>STANDARD 12.0</b> DEVELOP A PROGRAM 12.1 Use a program editor to enter and modify code 12.2 Identify correct input/output statements 12.10 Demonstrate the use of parameters to pass data into program modules 12.11 Demonstrate the use of return values from modules</p> <p><b>STANDARD 13.0</b> TEST AND DEBUG TO VERIFY PROGRAM OPERATION 13.1 Identify errors in program modules</p> <p><b>STANDARD 14.0</b> UTILIZE AND CREATE COMMUNITY RESOURCES 14.1 Use standard library functions</p>
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