Carbofuse CO_2 Injection System Training

Target Audience: Employees in pet and aquarium stores across the USA and Canada. Specifically, this training is intended for employees who work in the aquatic department of a pet store or in a store that specializes in aquariums with live plants and fish.

Learning Objectives:

1. Describe how CO_2 Injection affects the planted aquatic environment.
2. Identify the functions of the Carbofuse CO_2 Injection System components.
3. List the installation steps of the Carbofuse CO_2 Injection System.
4. Explain the operation of the Carbofuse CO_2 Injection System.

Seat Time: 20-30 Minutes

Outline:

- Welcome
- Navigation
- Learning Objectives
- When is CO_2 Injection Needed?
- Effects of CO_2
- Knowledge Check
- Product Components
- Knowledge Check
- Installation
- Installation Simulation
- Setup & Programming
- Operation
- Operation Simulation
- Checking CO_2 Levels
- Final Assessment
- Summary
- Congratulations

Custom Border and Title:

Font: Open Sans Extra Bold 22 (Slide Headings/Titles)
Open Sans SemiBold 18 (Instructions/Subheadings)
Open Sans Body 18 (Feature Text)

Color Palette with Hex Color Codes:

890D00	4C8512	04617B	000000

Open Sans Body 14 (Body Text)

Directions: Please review information for accuracy and completeness with the understanding that beyond this phase we are moving the design into development.

Please track changes and leave comments as you review. You may use the built-in comments feature in Google Docs.

Slide layers are indicated by using the same number as the base layer slide, followed by a, b, c, etc. for each consecutive layer.

Images of components are used with permission from Aquarium Co-op, 9661 Firdale Ave, Edmonds, WA 98020, United States.

Background images and videos are sourced from the Articulate 360 Resource Library and from Canva.

Font size and style is indicated for each slide based on the font information stated above.

Custom border and title should appear on every slide unless otherwise indicated.

This course contains three scenes. Scene 1 is the main course. Scene 2 contains installation steps. Scene 3 contains a lightbox slide.

The course offers closed captioning throughout that can be turned on on the welcome screen.

Module Resources/References: None

Slide [1.1]/ Menu Title: Welcome			Objective: [N/A]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
No top/bottom border Background video: Video of fish swimming in a heavily planted aquarium Course title set in semitransparent shape overlaying the background video Custom Start and Navigation Buttons are partially off the left side of the slide so that when they fly in, they appear from the left and the buttons extend like tabs into the slide. Below the Start and Navigation buttons is a CC icon and toggle. The subscript is located just below the CC icon and toggle.	[Slide Title] **Carbofuse CO_2 Injection System for Planted Aquariums** [Buttons} Start Navigation CC Toggle Switch [Subscript] Toggle the switch to turn captions on for the entire course.	[Calming music playing in the background] Welcome to the Carbofuse CO_2 Injection System for Planted Aquariums training. To begin the course, you can click the start button. If you'd like to learn about how to navigate the course, you can click the navigation button.	The Start and Navigation buttons will fly in from the left timed with the VO reference. The Start button will jump to slide 1.3 The Navigation button will jump to the next slide (slide 1.2) CC Toggle will turn CC on or off for the whole course. When the CC is turned on, there is a small rectangle indicating that CC is turned on. The rectangle disappears when toggled off.

Slide [1.2]/ Menu Title: Navigation			Objective: [N/A]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Player shows Menu on the left. Background image: Photographic image of a fish in a planted aquarium; centered on slide with a black border; background is set to a palette color	[Slide Title] **Navigation** [Captions] Next Previous Accessibility Volume Replay	Please take a moment to familiarize yourself with the course player so you feel comfortable with the navigation of this course. If you know your way around, you may proceed to the next slide. If you'd like to go forward or backward in the course, click the next or previous buttons. Accessibility options are located here. To adjust the volume, click the volume icon.	Caption bubbles with text labels will fade in timed with their reference in the audio. A bubble will originate near the fish in the picture as if it were blowing the bubble. The bubble will float down and move to the applicable Player features timed with the VO reference. As the bubble reaches the Player feature, the caption shape with the

Caption bubbles with labels point to player features Video of the slide in the modern player can be used so that player features do not “move” if the menu is collapsed.	Seekbar Play/Pause Menu Open/Close Menu	Click the replay button to see the entire slide again or adjust the seekbar at any time to review a portion of the slide. You can also pause the player. Click the same button again to resume play. Revisit a slide by using the menu on the left. Finally, you can open and close the menu by clicking the three lines here. Click the next button now to begin the course.	applicable label text will fade in on the slide and remain in place. Next button is set to normal at the beginning of this slide so the learner can skip ahead if they decide to. The Next button will jump to the next slide (slide 1.3)

Slide [1.3]/ Menu Title: Learning Objectives			**Objective: [N/A]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
On the right side of the slide, taking up almost half of the slide, is a photographic image of a planted aquarium. On the left is a rectangle of a palette color that extends from the top to the bottom border. The subheading and objectives appear on the rectangle.	[Slide Title] **Objectives** [Subheading] By the end of this module, participants will be able to: [Body] Describe how carbon dioxide injection affects the planted aquatic environment. Identify the functions of the Carbofuse CO2 Injection System Components. List the installation steps of the Carbofuse CO_2 Injection System. Explain the operation of the Carbofuse CO_2 Injection System.	By the end of this module, participants will be able to… Describe how carbon dioxide injection affects the planted aquatic environment. Identify the functions of the Carbofuse CO_2 Injection System components, and, List the installation steps of the Carbofuse CO_2 Injection System. Explain the operation of the Carbofuse CO_2 Injection System.	Objectives will appear timed with the reference in the VO. Rectangle flies in from the left. The Next button will jump to the next slide (slide 1.4)

Slide [1.4]/ Menu Title: When is CO_2 Injection Needed?			**Objective: [1]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Partial photo of the Carbofuse System with an aquarium on the left. The	[Slide Title] **CO2 Injection**	Customers may ask if CO2 Injection is right for them.	Text fades in times with VO reference. Photo flies in from the left.

picture takes up about ¼ of the slide.  On the right is a box for the text in one of the palette colors. This box extends from the top to the bottom border.	[Feature Text] Customers may ask if CO_2 Injection is right for them. Aquariums that are not heavily planted may not need CO_2 Injection. In order to ensure success, it is important that customers understand the effects of CO_2 Injection - both positive and negative.	Aquariums that are not heavily planted may not need CO2 injection. However, if the customer is looking for a lush aquatic environment filled with thriving plants, the Carbofuse CO2 Injection System is the perfect solution. In order to ensure success, it is important that customers understand the effects of CO2 injection – both positive and negative.	The Next button will jump to the next slide (slide 1.5)

Slide [1.5]/ Menu Title: Effects of CO_2			**Objective: [1]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Entire background is a palette color. There is a picture of an aquarium with the lights “neutral” (not on or off) on the right side of the slide. Text is on the left side of the slide. A slider is below the picture with “ON” and “OFF” labels.	[Slide Title] **Effects of CO_2 on the Planted Aquarium** [Feature Text 1] When CO_2 increases in the aquarium, pH decreases. Conversely, when CO_2 decreases, pH increases. This is usually not an issue when there is no additional CO_2 Injection. [Feature Text 2] When using a CO_2 Injection system, it is important to understand how CO_2, pH, plants and animals interact. This has to do with light.	When CO_2 increases in the aquarium, pH decreases. Conversely, when CO_2 decreases, pH increases. This is usually not an issue when there is no additional CO_2 injection. When using a CO_2 injection system, however, it is important to understand how CO_2, pH, plants and animals interact. This has to do with light. Turn the lights on and off using the slider to learn more.	Text fades in timed with VO reference. An icon representing CO_2 and an icon representing pH appear on the photo of the aquarium timed with the VO reference. Arrows emerge from behind the icons when the VO says “increases” and “decreases” to illustrate what is increasing and decreasing. The arrows are on a repeating motion path to make them appear like they are repeatedly moving up or down. Feature text 1, arrow and icons fade out after VO says “...additional CO_2 injection.” Feature Text 2 fades in timed with the VO. A slider appears under the photo timed with the VO reference. The slider has three stops: ON, neutral and OFF. “ON” and “OFF” are

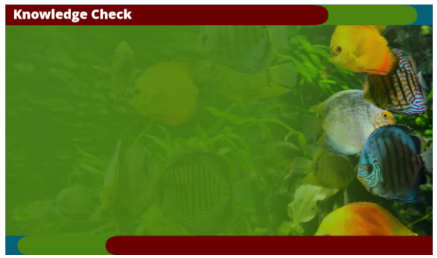
	Turn the lights on and off using the slider to learn more.		labeled on the slider. The slider begins in the neutral position and will bring the learner to each layer when toggled on or off. The learner should be able to toggle the slider to “ON” or “OFF” as they please to visit either layer in any order. The slider should be configured so that when layers “A” and “B” are closed, the slider is in the same position that it was in before the layer is closed. The Next button is disabled until both layers have been visited. The Next button will jump to the next slide (slide 1.6)

Slide [1.5a]/ Menu Title:			**Objective: [1]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
This layer is formatted like the base layer so that the aquarium picture is in the same spot, but is illuminated so it appears the lights have turned on in the aquarium. The slider should be in the “on” position when this layer begins. There is a “Close X” icon in the upper right corner of the slide so the user can close the layer and return to the base layer.	[Feature Text appears below Slide Title] Lights On [Body] When the aquarium lights are on, plants are photosynthesizing and consuming carbon dioxide. As CO2 is added to the environment, plants consume it and the excess is lost into the air. Because CO2 is being consumed quickly enough, pH remains stable in the aquarium.	When the aquarium lights are on, plants are photosynthesizing and consuming carbon dioxide. As CO2 is added to the environment, plants consume it and the excess is lost into the air. Because CO2 is being consumed quickly enough, pH remains stable in the aquarium.	Feature and body text fade in timed with the VO reference. Slider is in the “on” position when this layer begins and can be moved to the “off” position to take the learner to layer B, if desired. Learner can also close this layer and return to slide 1.5 and then move the slider to the “off” position to go to layer 1.5b. Slider and “Close X” icon should remain disabled until VO is complete on this layer. This layer can be closed by clicking on the “Close X” icon. When closed, the slider should end up in the “on” position on the base layer.

Slide [1.5b]/ Menu Title:	**Objective: [1]**

Visual / Display:	Slide Text:	Narration / Voiceover:	Animation / Interaction:
This slide is formatted like the base layer so that the aquarium picture is in the same spot, but is darkened so it appears the lights have turned off in the aquarium. The slider should be in the "off" position. There is a "Close X" icon in the upper right corner of the slide so the user can close the layer and return to the base layer. A photo of a drop checker is below the text.	[Feature Text appears below Slide Title] Lights Off [Body] When the aquarium lights are off, plants stop photosynthesizing and consuming CO2. If the CO2 injection system is left on, carbon dioxide can build up to dangerous levels and pH can drop too low. For this reason, it is important to turn off the CO2 system when the lights go off. A drop checker (pictured below) and pH test kit can be used to monitor levels, if desired.	When the aquarium lights are off, plants stop photosynthesizing and consuming CO2. If the CO2 injection system is left on, carbon dioxide can build up to dangerous levels and pH can drop too low. For this reason, it is important to turn off the CO2 system when the lights go off. A drop checker (pictured below) and pH test kit can be used to monitor levels, if desired.	Feature and body text appear in time with the VO reference. Drop checker picture appears with VO reference. Slider is in the "off" position when the layer begins and can be moved to the "on" position to take the learner to layer A, if desired. Learner can also close this layer and return to slide 1.5 and then move the slider to the "on" position to go to layer 1.5a. Slider and "Close X" icon should remain disabled until VO is complete on this layer. This layer can be closed by clicking on the "Close X" icon. When closed, the slider should end up in the "off" position on the base layer.

Slide [1.6]/ Menu Title: Knowledge Check			Objective: [1]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Knowledge Check and Quiz slides should all be formatted the same throughout the course. Background is a photo of a planted aquarium. Rectangular overlay on picture in a palette color and extends from the top to the bottom border. The overlay is semi-transparent so the background picture is just barely visible. Overlay is a gradient so that ¼ of the background picture is	[Slide Title] **Knowledge Check** [Instructions] Match the sentence parts to make four true statements. [Choice A] When CO_2 increases in the aquarium **[Match] pH decreases.** [Choice B] When CO_2 decreases in the	Before we continue, let's make sure you understand how CO2 injection affects the aquatic environment. Match the sentence parts to make four true statements. Click the submit button when you are done.	Matching Drag and Drop. Instructions and Matching Drag and Drop options appear timed with VO reference. User clicks the Submit button to submit answers. The Choices and Matches should be shuffled. There should be 2 attempts. The choices remain where they were after the first attempt if incorrect.

unobstructed on the right side of the slide.  	aquarium **[Match] pH increases.** [Choice C] When the lights are on, **[Match] plants photosynthesize and consume CO_2.** [Choice D] When the lights are off, **[Match] CO_2 can build up if the Carbofuse system is still on.**		After the first incorrect attempt, the Try Again button on the feedback layer (1.6c) hides the layer and returns to this slide. After the second incorrect attempt, the Review button on the feedback layer (1.6b) will jump to slide 1.7. If correct on the first or second attempt, the Continue button on the feedback layer (1.6a) jumps to slide 1.8.

Slide [1.6a]/ Menu Title:			**Objective: [1]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Feedback Layer in a dialog format (background darkened). A white rectangle appears in the middle of the slide. A green checkmark indicates a correct answer. The title is under the checkmark. Body text and button are under the title.	[Layer Title] Nice Work! [Body] It looks like you understand how pH and CO_2 interact. [Button} Continue	No VO	Continue button will jump to the next slide (Slide 1.8).

Slide [1.6b]/ Menu Title:			**Objective: [1]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Visual layout is the same as 1.6a. This layer has a red “X” icon instead of a checkmark.	[Layer Title] Not quite. [Body] It looks like you need to review this information.	No VO	Review button jumps to slide 1.7.

	[Button] Review		

Slide [1.6c]/ Menu Title:			Objective: [1]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Visual layout is the same as 1.6a & 1.6b.	[Layer Title] Try Again [Body] Give it another try! Remember: When CO2 goes up, pH goes down and vice versa. Plants photosynthesize and consume CO2 when lights are on. [Button] Try Again	No VO	Try Again button hides this layer and returns to slide 1.6.

Slide [1.7]/ Menu Title: Review [Hidden from Menu]			Objective: [1]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Background is a solid palette color. Four rectangular shapes in a solid palette color make up the majority of the slide. Each shape shows the starting (front) text.	[Slide Title] **Review** [Instructions] Select the cards you would like to review. Click Next when you are finished. [Cards] [Card 1] Front: When CO_2 increases… Back: pH decreases. [Card 2] Front: When CO_2 decreases… Back: pH increases. [Card 3]	Select the cards you would like to review. Click next when you are finished.	Text and shapes appear timed with VO reference. Four rectangles (cards) float in from the bottom on the slide. When the user clicks on each shape, it will show the “back” of the rectangle like it is a card being turned over. Next button is not hidden or disabled so the learner can decide how much or how little to review. Next button jumps to next slide (Slide 1.8)

	Front: When the lights are on… Back: plants photosynthesize and consume CO_2. [Card 4] Front: When the lights are off… Back: CO_2 can build up if the Carbofuse System is left on.		

Slide [1.8]/ Menu Title: Product Components			Objective: [2]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
The entire background is a video of fish swimming in a planted aquarium. The entire video is partially obscured with a semi-transparent rectangle that allows the video to be just visible. About ¾ of the slide has a large white rectangle positioned on the right side with a diagram of the Carbofuse System, the diagram title and description. Reference image:  Seven tabs emerge from the left side of the rectangle. There is space between the tabs so the	[Slide Title] **Carbofuse System Components** [Text in White Rectangle] [Subheading] Carbofuse Components [Body] Click on the tabs to the left to learn about each component. You may click on the speaker icon to hear about each component. [Tabs] CO_2 Cylinder [1.8a] Regulator [1.8b] Timer [1.8c] Bubble Counter [1.8d] Tubing [1.8e] Check Valve [1.8f] CO_2 Diffuser [1.8g]	The Carbofuse CO2 Injection System consists of seven components. Click on the name of each component to learn about its function. You may click on the speaker icon near each component name to hear about them, if you wish. Click on the speaker icon again to pause the audio.	The background appears at the beginning of the timeline with the title. The white rectangle appears after the title. The seven tabs move out from behind the white rectangle timed with their reference in the VO. Each tab has a hover state and a visited state. Tabs show layers as indicated in the “Slide Text” column. Tabs can be clicked on in any order. The Next button is disabled until all seven tabs have been visited. The Next button jumps to slide 1.9.

background is still partially visible.			
Notes: Audio is optional for the learner on all layers in order to accommodate learner preference. With so much information being presented, this allows the learner to slow down or speed up their learning.			

Slide [1.8a]/ Menu Title:			**Objective: [2]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
The white box on the base layer is replaced with descriptive text about the CO_2 cylinder tank, along with a photo of the component.  The text is positioned on the left side of the box. The photo is positioned to the right of the text. A speaker icon appears next to the component name.	[Component Name Subheading] CO_2 Cylinder Tank [Body] The CO2 Cylinder Tank is the only necessary component that is not included with the Carbofuse CO2 System. CO2 Cylinder tanks can be obtained at brewery shops, restaurant shops and some aquarium stores.	The CO2 Cylinder Tank is the only necessary component that is not included with the Carbofuse CO2 System. CO2 Cylinder tanks can be obtained at brewery shops, restaurant shops and some aquarium stores.	Base Layer is visible on this layer so all tabs can be clicked on. Voiceover can be started and paused using the speaker icon.

Slide [1.8b]/ Menu Title:			**Objective: [2]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Layout is the same as layer 1.8a. On this layer, the component is the Regulator & Solenoid.	[Component Name Subheading] Regulator & Solenoid [Body] The regulator is used to control the amount of CO2 flowing	The regulator is used to control the amount of CO2 flowing through the system. The Carbofuse CO2 Injection System comes with a solenoid that can be plugged into a timer to start and stop the flow of carbon dioxide.	Base Layer is visible on this layer so all tabs can be clicked on. Voiceover can be started and paused using the speaker icon.

	through the system. The Carbofuse CO2 Injection System comes with a solenoid that can be plugged into a timer to start and stop the flow of carbon dioxide.		

Slide [1.8c]/ Menu Title:			Objective: [2]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Layout is the same as layers 1.8a-1.8b. On this layer, the component is the Timer. 	[Component Name Subheading] Timer [Body] The Carbofuse CO2 Injection System includes a timer that can be used to turn the system on and off with the lights as needed.	The Carbofuse CO2 Injection System includes a timer that can be used to turn the system on and off with the lights as needed.	Base Layer is visible on this layer so all tabs can be clicked on. Voiceover can be started and paused using the speaker icon.

Slide [1.8d]/ Menu Title:			Objective: [2]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Layout is the same as layers 1.8a-1.8c. On this layer, the component is the Bubble Counter. 	[Component Name Subheading] Bubble Counter [Body] The bubble counter is used to monitor how quickly CO2 is flowing through the system. The bubble counter connects to the regulator. The bubble counter can be filled with water, however mineral oil is a better choice since it will not evaporate as quickly.	The bubble counter is used to monitor how quickly CO2 is flowing through the system. The bubble counter connects to the regulator. The bubble counter can be filled with water, however mineral oil is a better choice since it will not evaporate as quickly.	Base Layer is visible on this layer so all tabs can be clicked on. Voiceover can be started and paused using the speaker icon.

Slide [1.8e]/ Menu Title:			Objective: [2]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**

Layout is the same as layers 1.8a-1.8d. On this layer, the component is the Tubing. 	[Component Name Subheading] Tubing [Body] The Carbofuse CO2 Injection System includes 20 feet of standard air tubing. This tubing is used to connect the bubble counter to the check valve and the diffuser.	The Carbofuse CO2 Injection System includes 20 feet of standard air tubing. This tubing is used to connect the bubble counter to the check valve and the diffuser.	Base Layer is visible on this layer so all tabs can be clicked on. Voiceover can be started and paused using the speaker icon.

Slide [1.8f]/ Menu Title:			**Objective: [2]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Layout is the same as layers 1.8a-1.8e. On this layer, the component is the Check Valve. 	[Component Name Subheading] Check Valve [Body] The check valve is used to ensure that water does not flow back through the air tubing and to the regulator. This can cause damage to the system, so use of the check valve is essential.	The check valve is used to ensure that water does not flow back through the air tubing and to the regulator. This can cause damage to the system, so use of the check valve is essential.	Base Layer is visible on this layer so all tabs can be clicked on. Voiceover can be started and paused using the speaker icon.

Slide [1.8g]/ Menu Title:			**Objective: [2]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Layout is the same as layers 1.8a-1.8f. On this layer, the component is the CO_2 Diffuser. 	[Component Name Subheading] CO_2 Diffuser [Body] The CO_2 diffuser contains a ceramic disc that turns the carbon dioxide gas into tiny bubbles in the aquarium. These tiny bubbles diffuse CO2 into the water and make it available to the plants.	The CO_2 diffuser contains a ceramic disc that turns the carbon dioxide gas into tiny bubbles in the aquarium. These tiny bubbles diffuse CO_2 into the water and make it available to the plants.	Base Layer is visible on this layer so all tabs can be clicked on. Voiceover can be started and paused using the speaker icon.

Slide [1.9]/ Menu Title: Knowledge Check			Objective: [2]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Almost ¾ of the slide is taken up by an image of the Carbofuse system that includes the diffuser in the aquarium on the right.  On the left, there is a rectangle that extends from the top to bottom border. The rectangle is a palette color and semi-transparent so that a background image of a planted aquarium is barely visible. Instructions appear in the rectangle. Four white callouts appear on the picture with lines that connect each callout with the corresponding component. The Begin button is below the text.	[Slide Title] **Knowledge Check** [Instructions] Four of the Carbofuse CO_2 Injection System components are shown here. You will click on three of the four components being described. Click begin when you are ready. [Button] Begin [Callouts] Diffuser Bubble Counter Regulator CO_2 Cylinder	Before we continue, let's make sure you understand the functions of some of the Carbofuse CO2 Injection System components. Four of the components are shown here. You will click on three of the four components being described. Click begin when you are ready.	Instructions and call out bubbles with their lines fade in when the VO says "Four of the components are shown here." Lines wipe in when they animate so they appear to extend from the callout bubbles to the corresponding components. Begin button appears timed with VO. Instructions and Begin button are hidden after the Begin button is clicked. The Begin button jumps to layer 1.9a.

Slide [1.9a]/ Menu Title:			Objective: [2]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
The Base Layer is visible with the exception of the Begin button and the instructions.	[Body] Click on the name of the component that is the only one	Click on the name of the component that is the only one not included with the Carbofuse CO2 Injection System.	The incorrect answers (Diffuser, Bubble Counter and Regulator) will turn red if clicked on.

Callouts are duplicated on this layer so they can be clicked on and are different from other layers.	not included with the Carbofuse CO2 Injection System.		**Correct answer (CO_2 Cylinder)** will turn green when clicked on. Incorrect answers will jump to layer 1.9g. Correct answer will jump to layer 1.9d.

Slide [1.9b]/ Menu Title:			**Objective: [2]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
The visual layout of this layer is identical to layer 1.9a.	[Body] Click on the name of the component that produces tiny bubbles of CO2 that are diffused into the aquarium environment.	Click on the name of the component that produces tiny bubbles of CO2 that are diffused into the aquarium environment.	The incorrect answers (CO_2 Cylinder, Bubble Counter and Regulator) will turn red if clicked on. **Correct answer (Diffuser)** will turn green when clicked on. Incorrect answers will jump to layer 1.9g. Correct answer will jump to layer 1.9e.

Slide [1.9c]/ Menu Title:			**Objective: [2]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
The visual layout of this layer is identical to layer 1.9a.	[Body] Click on the name of the component that controls the amount of CO2 that is released into the system..	Click on the name of the component that controls the amount of CO2 that is released into the system.	The incorrect answers (CO_2 Cylinder, Bubble Counter and DIffuser) will turn red if clicked on. **Correct answer (Regulator)** will turn green when clicked on. Incorrect answers will jump to layer 1.9g. Correct answer will jump to layer 1.9f.

Slide [1.9d]/ Menu Title:			**Objective: [2]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Visual layout is the same as 1.6a - 1.6c.	[Layer Title] Correct!	No VO	Continue button will jump to layer 1.9b.

	[Body] Nice Work [Button} Continue		

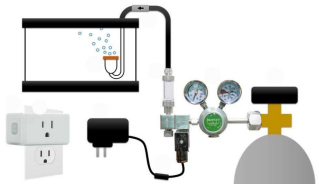
Slide [1.9e]/ Menu Title:			Objective: [2]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Visual layout is the same as 1.9d.	[Layer Title] Correct! [Body] Nice Work [Button} Continue	No VO	Continue button will jump to layer 1.9c.

Slide [1.9f]/ Menu Title:			Objective: [2]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Visual layout is the same as 1.9d & 1.9e.	[Layer Title] Correct! [Body] Nice Work [Button} Continue	No VO	Continue button will jump to slide 2.1. This is in scene 2.

Slide [1.9g]/ Menu Title: [Insert Title]			Objective: [2]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Visual layout is the same as 1.9d - 1.9f. There is a red “X” icon instead of a green check on this layer.	[Layer Title] Not Quite. [Body] Try Again!	No VO	Continue button will hide this layer.

	[Button} Continue		

Slide [2.1]/ Expandable Scene Title on Menu: Installation	Menu Title: Introduction		Objective: [3]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
About 1.3 of the slide has a rectangle in a palette color on the left side of the slide. The shape extends from the top to the bottom border. Feature text appears in the rectangular shape just below the slide title. Under the Feature Text is the Continue button. The Continue button is in a palette color and is partially off the slide so that it appears to come in from the left side. The right ⅔ of the screen is a white rectangle that extends from the top to the bottom border and has a complete diagram of the Carbofuse CO_2 System. The diagram is set below the Diagram Title Text. This diagram is the complete version of what will appear on the final installation slide (Slide 2.6). This is also the same diagram used in slide 1.8.	[Slide Title] Installation [Feature Text] Installation of the Carbofuse CO_2 Injection System is relatively straightforward. Click continue to learn to install the system. [Button] Continue [Diagram Title] Carbofuse CO_2 Injection System Installation Diagram	Installation of the Carbofuse CO_2 Injection System is relatively straightforward. Click continue to learn how to install the system.	Text and Continue buttons appear timed with their reference in the VO. When the user clicks the Continue button, slide 2.2 flies in from the right using a motion path to begin the carousel. The images and text from this slide fly off to the left using a motion path. The images on this slide and the images on the next slides in this carousel should appear to slide between the top and bottom borders, so the top and bottom borders should appear to be static. For this carousel interaction, the VO should pause if the user clicks the chevrons to move to the next slide so that the VO does not overlap. Learner should be able to freely move forward and backwards through the carousel interaction.

			
Notes: This slide is the introduction to a carousel interaction that begins when the learner clicks the Continue button. The carousel interaction includes slides 2.2-2.7			

Slide [2.2]/ Menu Title: Step 1			**Objective: [3]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Centered at the top of the slide, just below the top border, there is a rectangle in a palette color with the text “Step 1”. The feature text is below the rectangle. The first installation step is illustrated below the rectangle. Only the CO_2 Cylinder and the regulator are shown on this slide to illustrate the first step.  Centered vertically on the right of the slide is a double chevron icon pointing to the right.	[Slide Title] Installation [Text in Rectangle] Step 1 [Feature Text] Connect the regulator to the CO_2 cylinder by screwing it on to the threaded cylinder coupling.	Connect the regulator to the CO_2 cylinder by screwing it on to the threaded cylinder coupling.	VO begins when this slide is finished animating onto the screen. The Next and Previous buttons are hidden on this slide so that the learner must click on the chevron to navigate through the slides in this scene. When the user clicks on the chevron, the carousel moves to slide 2.3.

Slide [2.3]/ Menu Title: Step 2			Objective: [3]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
The layout of this slide is identical to Slide 2.2. However, there is a double chevron on the left side of this slide as well as on the right. Both chevrons are centered vertically on the sides of the slide. The second installation step is illustrated below the rectangle. The CO_2 Cylinder, regulator and bubble counter are shown on this slide to illustrate the second step. 	[Slide Title] Installation [Text in Rectangle] Step 2 [Feature Text] Connect the bubble counter to the regulator.	Connect the bubble counter to the regulator.	VO begins when this slide is finished animating onto the screen. The Next and Previous buttons are hidden on this slide so that the learner must click on the chevrons to navigate through the slides in this scene. When the user clicks on the left chevron, the carousel moves to slide 2.2. When the user clicks on the right chevron, the carousel moves to slide 2.4.

Slide [2.4]/ Menu Title: Step 3			Objective: [3]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
The layout of this slide is identical to Slides 2.3. The third installation step is illustrated below the rectangle. The CO_2 Cylinder, regulator, bubble counter and tubing are shown on this slide to illustrate the third step.	[Slide Title] Installation [Text in Rectangle] Step 3 [Feature Text] Connect the tubing to the bubble counter.	Connect the tubing to the bubble counter.	VO begins when this slide is finished animating onto the screen. The Next and Previous buttons are hidden on this slide so that the learner must click on the chevrons to navigate through the slides in this scene. When the user clicks on the left chevron, the carousel moves to slide 2.3.

 Chevrons appear as they did in slide 2.3.			When the user clicks on the right chevron, the carousel moves to slide 2.5.

Slide [2.5]/ Menu Title: Step 4			Objective: [3]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
The layout of this slide is identical to Slides 2.3 & 2.4. The fourth installation step is illustrated below the rectangle. The CO_2 Cylinder, regulator, bubble counter, tubing and check valve are shown on this slide to illustrate the fourth step.  Chevrons appear as they did in Slides 2.3 & 2.4.	[Slide Title] Installation [Text in Rectangle] Step 4 [Feature Text] Connect the check valve to the tubing. It should be near the top rim of the tank.	Connect the check valve to the tubing. It should be near the top rim of the tank.	VO begins when this slide is finished animating onto the screen. The Next and Previous buttons are hidden on this slide so that the learner must click on the chevrons to navigate through the slides in this scene. When the user clicks on the left chevron, the carousel moves to slide 2.4. When the user clicks on the right chevron, the carousel moves to slide 2.6.

Slide [2.6]/ Menu Title: Step 5	Objective: [3]

Visual / Display:	Slide Text:	Narration / Voiceover:	Animation / Interaction:
The layout of this slide is identical to Slides 2.3, 2.4 & 2.5. The fifth installation step is illustrated below the rectangle. The CO_2 Cylinder, regulator, bubble counter, tubing, check valve and diffuser in the aquarium are shown on this slide to illustrate the fifth step.  Chevrons appear as they did in Slides 2.3, 2.4 & 2.5.	[Slide Title] Installation [Text in Rectangle] Step 5 [Feature Text] Connect the tubing to the diffuser. The diffuser can be affixed to the inside of the aquarium glass.	Connect the tubing to the diffuser. The diffuser can be affixed to the inside of the aquarium glass.	VO begins when this slide is finished animating onto the screen. The Next and Previous buttons are hidden on this slide so that the learner must click on the chevrons to navigate through the slides in this scene. When the user clicks on the left chevron, the carousel moves to slide 2.5. When the user clicks on the right chevron, the carousel moves to slide 2.7.

Slide [2.7]/ Menu Title: [Hidden from Menu]			Objective: [3]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
This slide has the same rectangle as the ones in slides 2.3-2.5 that contained the text indicating the steps. This time, it says “Complete!”. There is no image on this slide. Feature text is set just below the “Complete!” rectangle. Text is centered on the screen and justified left.	[Slide Title] Installation [Feature Text] That completes the installation steps of the Carbofuse CO2 Injection System Components. Click “Start Over” to begin again, or click next in the lower right portion of your screen to continue.	That completes the installation steps of the Carbofuse CO2 Injection System Components. Click start over to begin again, or click next in the lower right portion of your screen to continue.	This slide animates onto the screen like the other carousel slides (2.2-2.6). However, this slide does not have chevrons. The Next button is enabled on this slide. The Previous button is hidden so the learner can click the Start Over button or the Next button. The Start Over button jumps to slide 2.2. The Next button jumps to slide 1.10.

The “Start Over” button appears below the feature text.			

Slide [1.10]/ Menu Title: Installation Tips [Hidden from Menu]			Objective: [N/A]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Background is a photo of a planted aquarium. This photo should be different from the Knowledge Check photo so that it is differentiated as not being a KC or quiz question. There is a rectangular overlay on the picture in a palette color and extends from the top to the bottom border. The overlay is semi-transparent so the background picture is just barely visible. Overlay is a gradient so that ¼ of the background picture is unobstructed on the right side of the slide. Under the instructions, there are 4 tips, one above the other. The tips are in a shape that is a palette color and the left side of the shape is off the slide. The tip obscures the slide out shape with the text. The slide out shapes should be the same shape as the tip shapes so that the slide out part appears to be an extension of the tip shapes.	[Slide Title] **Installation Tips** [Instructions] Here are some tips to make sure installation of the Carbofuse CO_2 System is successful. Click on each tip to learn more. [Tab Labels] Tip #1 Tip #2 Tip #3 Tip #4 [Tab Slide Out Text] [1] Fill the bubble counter with mineral oil instead of water. It will last longer. [2] Determine the length of tubing you need and cut it to size first. [3] Place the check valve near the top of the tank on the tubing. [4] Check the system for leaks over the next several days.	Here are some tips to make sure installation of the Carbofuse CO2 System is successful. Click on each tip to learn more. Tip Number 1: Fill the bubble counter with mineral oil instead of water. It will last longer. Tip Number 2: Determine the length of tubing you need and cut it to size first. Tip Number 3: Place the check valve near the top of the tank on the tubing. Tip Number 4: Check the system for leaks over the next several days.	Instructions appear after the title and VO reads instructions. Each tip animates onto the screen after the instructions. Each tip flies in from the left, one after the other. Tips have hover states. When clicked on, a shape containing the “slide out” text flies in from under the corresponding tab. When the shape slides out, it will be almost the width of the slide. The tip tabs do not have a visited state so that when the slide out text has completed animation, it looks like it is an extension of the tip tab. Animation should be timed so that the VO for each tip is stated after it is clicked on. Tips can be clicked on in any order. Tips can only be clicked on one at a time so the VO does not overlap. The next button is disabled until all tips have been visited. The next button will jump to the next slide (Slide 1.11)

Notes: This slide is not included on the menu because it is not essential to meet the LO's.

Slide [1.11]/ Menu Title: Installation Simulation			Objective: [3]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
This is a drag and drop interaction. A little more than half of the right side of the slide is taken up with a picture of an aquarium and a CO_2 Cylinder Tank. There is space between the aquarium and the Cylinder Tank to allow for components to be dropped in the correct sequence between them. Above the cylinder tank and the aquarium, near the top of the slide is a button that says "Diagram". The left side of the slide has a rectangle that extends from the top to the bottom border in a solid palette color. Instructions are at the top of the rectangle. Two shelves are on the rectangle under the instructions and are used as starting points for the drag and drop items. Drag and drop items are: regulator, tubing, bubble	[Slide Title] **Installation Simulation** [Instructions] Drag the five Carbofuse CO_2 components to their correct position. [Button] Diagram	Let's simulate installation of the Carbofuse CO2 Injection System. Drag the five components on the shelves to the correct position from the CO2 Cylinder to the aquarium. You may click the diagram button if you need a hint. Click the submit button when you are done.	Instructions appear when the VO says "Drag the five components…". Five components appear in sequence on the shelves after the instructions. The user drags and drops the items in the correct sequence and clicks submit when done. The learner gets two attempts. The Diagram button jumps to lightbox slide 3.1. Submit button jumps to Layer 1.11a, b, or c depending on correct/incorrect submission.

counter, check valve and diffuser.			
Notes: Lightbox slide 3.1 is located at the end of this document.			

Slide [1.11a]/ Menu Title:			**Objective: [3]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Visual layout is the same as 1.6a - 1.6c. and 1.9d-1.9g.	[Layer Title] Nice Work! [Body] It looks like you know your stuff. [Button} Continue	No VO	Continue button jumps to slide 1.13.

Slide [1.11b]/ Menu Title:			**Objective: [3]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
VIsual layout is the same as slide 1.11a.	[Layer Title] Not Quite. [Body] Click the review button below to review the installation steps. [Button] Review	No VO	Review button jumps to slide 1.12.

Slide [1.11c]/ Menu Title:			**Objective: [3]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Visual layout is the same as slide 1.11a & 1.11b.	[Layer Title] Try Again [Body] Give it another try! Click the Diagram button if you need a hint. [Button]	No VO	Try Again button hides this layer.

	Try Again		

Slide [1.12]/ Menu Title: Installation Simulation Review [Hidden from Menu]			Objective: [3]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
The visual layout of this slide is identical to slide 1.11, but the instructions and shelves are gone. Instead, the solid rectangle has all 5 installation steps listed. The drag and drop area is shown with the components in the correct spots. Each component is labeled with a number that corresponds to each installation step. Under the steps there is a continue button in a palette color.	[Slide Title] **Installation Simulation** [Body] 1. Connect the regulator to the CO_2 Cylinder. 2. Connect the bubble counter to the regulator. 3. Connect the tubing to the bubble counter. 4. Connect the check valve to the tubing. 5. Connect the tubing to the diffuser. [Button] Continue	Please take a moment to review the installation steps.	Next button is hidden on this slide. Continue button jumps to slide 1.13.

Slide [1.13]/ Menu Title: Programming and Setup [Hidden from Menu]			Objective: [N/A]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Background is a photo of a planted aquarium. This photo should be different from the Knowledge Check photo so that it is differentiated as not being a KC. Can be the same photo used on slide 1.10. Rectangular overlay on picture in a palette color and extends from the top	[Slide Title] **Programming and Setup** [Body] Now that you know how to install the Carbofuse CO2 Injection System, it's time to learn to operate it. Operation of the Carbofuse CO2 Injection System is relatively easy.	Now that you know how to install the Carbofuse CO2 Injection System, it is time to learn to operate it. Operation of the Carbofuse CO2 Injection System is relatively easy. Let's learn how to operate the system.	Text appears on slide timed with VO prompts. Next button is hidden on this slide. Auto advance to slide 1.14 at the end of this slide's timeline.

to the bottom border. The overlay is semi-transparent so the background picture is just barely visible. Overlay is a gradient so that ¼ of the background picture is unobstructed on the right side of the slide.	Let's learn how to operate the system…		

Slide [1.14]/ Menu Title: Operation			Objective: [4]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
⅔ of this slide has a semi-transparent palette color rectangle that extends from the top to the bottom border. Behind the shape is a photo of a planted aquarium and is barely visible. The right side of the slide contains a photo of the Carbofuse System and aquarium. This can be the same photo used in slide 1.9. Near the bottom of the slide on the left under the instructions is a slider with 5 labeled stops. There is a "fake" slider track on this slide that replaces the transparent slider tracks.	[Slide Title] **System Operation** [Instructions] There are five steps to operating the Carbofuse CO_2 Injection System. Move the slider to each step below to learn how to operate the Carbofuse CO_2 Injection System. [Slider Stop Labels] Step 1 Step 2 Step 3 Step 4 Step 5	There are five steps to operating the Carbofuse CO_2 Injection System. Move the slider to each step to learn more.	Instructions appear timed with the VO. The Next button is disabled until all layers are visited. Each label on the slider appears sequentially during the VO. Instructions disappear after the VO is complete, leaving the area above the slider free for each operation step to appear when the layers are visited. Learner slides the slider to step 1. The slider should be developed so that the learner can only visit each step one at a time. Slider does not need to have the ability to move backwards since all steps will be revealed when the interaction is complete. Base layer and all layers should be visible at all times. Slider jumps to 1.14a when moved to Step 1.

Slider that extends from the beginning of the track to Step 1 is on a transparent track so the "fake" track is still visible.			The Next button jumps to the next slide (Slide 1.15)

Slide [1.14a]/ Menu Title:			Objective: [4]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
This layer only contains the text and a slider on a transparent track that extends from Step 1 to Step 2. Base layer is still visible.	[Feature Text] 1. Plug the timer into an outlet and plug the regulator into the timer.	Plug the timer into an outlet and plug the regulator into the timer.	Text appears with VO. VO starts at the beginning of this layer. Slider is initially set to Step 1. Slider jumps to layer 1.14b when moved to Step 2.

Slide [1.14b]/ Menu Title:			Objective: [4]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
This layer only contains the text and a slider on a transparent track that extends from Step 2 to Step 3. Text is set just below Step 1. Base layer and layer 1.14a are visible.	[Feature Text] 2. Turn on the flow of CO_2.	Turn on the flow of CO_2.	Text appears with VO. VO starts at the beginning of this layer. Slider is initially set to Step 2. Slider jumps to layer 1.14c when moved to Step 3.

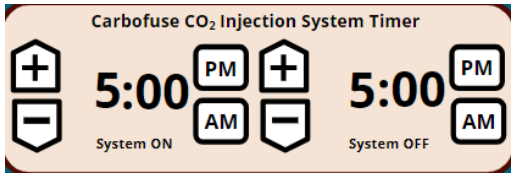
Slide [1.14c]/ Menu Title:			Objective: [4]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
This layer only contains the text and a slider on a transparent track that extends from Step 3 to Step 4. Text is set just below Step 2.	[Feature Text] 3. Adjust for about one bubble produced in the bubble counter per second.	Adjust for about one bubble produced in the bubble counter per second.	Text appears with VO. VO starts at the beginning of this layer. Slider is initially set to Step 3. Slider jumps to layer 1.14d when moved to Step 4.

Base layer, layer 1.14a and 1.14b are visible.			

Slide [1.14d]/ Menu Title:			Objective: [4]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
This layer only contains the text and a slider on a transparent track that extends from Step 4 to Step 5. Text is set just below Step 3. Base layer, layer 1.14a, 1.14b and 1.14c are visible.	[Feature Text] 4. Adjust the timer so that the system and lights turn on and off at the same time.	Adjust the timer so that the system and lights turn on and off at the same time.	Text appears with VO. VO starts at the beginning of this layer. Slider is initially set to Step 4. Slider jumps to layer 1.14e when moved to Step 5.

Slide [1.14e]/ Menu Title:			Objective: [4]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
This layer only contains the text and a slider on a transparent track that is set to Step 5. The slider has 0 stops because it will not need to be moved. Base layer, layer 1.14a, 1.14b, 1.14c and 1.14d are visible.	[Feature Text] 5. Wait for at least 24 hours to check the CO_2 levels.	Wait for at least 24 hours to check the CO_2 levels.	Text appears with VO. VO starts at the beginning of this layer. Slider is initially set to Step 5. Next button is set to normal at the end of this layer's timeline and jumps to the next slide (Slide 1.15)

Slide [1.15]/ Menu Title: Operation Simulation			Objective: [4]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
A little more than the right half of this slide consists of a photo of the Carbofuse System with the Cylinder, regulator and bubble counter included. On the left is a solid rectangle in a palette color that extends from the top to the bottom border.	[Slide Title] Operation Simulation [Instructions] Let's simulate the operation of the	Let's simulate the operation of the Carbofuse CO2 Injection System. To begin, rotate the CO2 Cylinder knob clockwise until CO2 begins to flow.	Next and Previous buttons are hidden. The Submit button is disabled until audio ends on layer 1.15a. Text is timed to appear with the VO prompts.

Towards the bottom of the rectangle is a "timer" in a rectangular shape that has a System On time and System Off time. The timer is adjustable with buttons to increase or decrease the hours. There are also buttons to set the times to AM or PM. The timer has the label "Carbofuse CO_2 Injection System Timer". Above the photo of the CO_2 Cylinder, there is a knob that mimics the knob on the cylinder. There is a knob superimposed on the regulator that is the same as the knob that is used as a dial on layer 1.15a. An arrow appears and then disappears to indicate the location of the CO_2 Cylinder knob. Possible layout of dials as knobs.  Timer Example: 	Carbofuse CO_2 Injection System. Rotate the CO_2 cylinder knob clockwise until CO_2 begins to flow. [Timer Title Text] Carbofuse CO_2 Injection System Timer [Timer Buttons] AM PM [Timer Text under Times] System ON System OFF		When the VO mentions the CO_2 cylinder knob, an arrow appears to indicate where the knob is. It disappears at the end of the VO. When VO on this slide is complete, the learner is able to turn the knob of the CO_2 cylinder. There should be at least 2 rotations of the knob until the slide jumps to layer 1.15a. Timer is set initially to 5:00 for both times. AM and PM buttons are in their normal non-visited states. AM and PM buttons will change state to show the learner that they have been selected when the timer is set. When one button is selected, the other is automatically deselected. The timer only needs to have the hours adjustable, not the minutes. Learner must adjust the timer so that it matches the times the lights turn on and off. These times are revealed in layer 1.15a. Therefore, the learner should not be able to interact with the timer until layer 1.15a.

Slide [1.15a]/ Menu Title:			**Objective: [4]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
This layer adds a dial that can be turned by the	CO_2 is now flowing.	Carbon Dioxide is now flowing.	The Submit button is set to normal at the end of the VO on this layer.

learner on the regulator. The dial looks the same as the regulator knob on the base layer, so it appears to the learner that it is the same knob. A small arrow and a CO_2 icon appear near the CO_2 cylinder to show that carbon dioxide is flowing. Three large arrows appear to indicate the regulator dial, the bubble counter and the timer to the learner.	Now, adjust the regulator so there is one bubble per second in the bubble counter. Then, adjust the timer below. The lights for this aquarium are set to turn on at 8:00 AM and off at 9:00 PM. Click the Submit button when you are done.	Now, adjust the regulator so there is one bubble per second in the bubble counter. Then, adjust the timer below. The lights for this aquarium are set to turn on at 8:00 AM and off at 9:00 PM. Click the Submit button when you are done.	The small arrow and CO_2 icon appear at the beginning of this layer to indicate that CO_2 is flowing. The arrow is set on a repeating motion path so that it appears to move repeatedly from the CO_2 Cylinder to the regulator. Text is timed with the VO reference. Large arrows are timed with VO reference and point to each element mentioned (regulator knob, bubble counter and timer). Arrows disappear after they are referred to by the VO. Regulator dial and timer are released for interaction when the VO ends on this layer. As the regulator dial is turned, a bubble begins to rise in the bubble counter. The more the dial is turned, the faster the bubbles get. The bubbles in the bubble counter should be too slow when turned a little and too fast when turned a lot. There is a “sweet spot” where the position of the dial results in approximately one bubble per second in the bubble counter. This “sweet spot” should be somewhere in the middle of the dial (not when it is turned completely or not turned at all) The dial has 6 speeds and the “sweet spot” could be set at the 4th speed (dial position). The Submit button will jump to layers 1.15h-1.15k depending upon learner input. Learner gets three attempts. If, on the third attempt, the input is not correct, the Submit button will jump to layer 1.15l.

Slide [1.15b-1.15g]/ Menu Title: [Insert Title]			Objective: [4]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
These six layers are all identical. The only difference is that each layer has the bubble in the bubble counter getting progressively faster.	No text.	No VO.	As the regulator dial is turned, each layer is revealed and then hidden. Each layer has the bubble in the bubble counter rising at a different speed: Layer b - slowest Layer c - slightly faster than Layer b Layer d - slightly faster than Layer c Layer e - faster than Layer d and timed so it is **the correct setting (one bubble per second in the bubble counter)** Layer f - somewhat faster than Layer e. Layer g - somewhat faster than Layer f. It is important that the correct speed on Layer e is differentiated enough from the other layers so the learner can see a clear difference. Developer can decide if Layer e results in the correct speed of the bubble in the bubble counter. To mimic a real-life situation, it should be Layer d, e or f.
Notes: There are 6 layers here. Each layer is identical except for the speed that the bubble is animated in the bubble counter.			

Slide [1.15h]/ Menu Title:			Objective: [4]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Visual layout is the same as 1.6a-1.6c & 1.9d - 1.9g. There is a red “X” icon on this layer.	[Layer Title] Not Quite. [Body] Turn the regulator clockwise more so that the bubble is moving faster in the bubble	No VO	This feedback will show if the regulator dial is set below the correct setting. Continue button will hide this layer. Continue button will jump to layer 1.15a. Layer 1.15a should resume in the state it was before the learner clicked the Submit button.

	counter. Count one bubble per second. [Button} Continue		

Slide [1.15i]/ Menu Title:			Objective: [4]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Visual layout is the same as 1.15h.	[Layer Title] Not Quite. [Body] Turn the regulator counter clockwise so that the bubble is moving slower in the bubble counter. Count one bubble per second. [Button] Continue	No VO.	This feedback will show if the regulator dial is set above the correct setting. Continue button will hide this layer. Continue button will jump to layer 1.15a. Layer 1.15a should resume in the state it was before the learner clicked the Submit button.

Slide [1.15j]/ Menu Title:			Objective: [4]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Visual layout is the same as 1.15h & 1.15i	[Layer Title] Not Quite. [Body] Make sure the timer is set so that the system turns on when the lights turn on and off when the lights turn off. [Button] Continue	No VO.	This feedback will show if any aspect of the timer is set incorrectly.. Continue button will hide this layer. Continue button will jump to layer 1.15a. Layer 1.15a should resume in the state it was before the learner clicked the Submit button.

Slide [1.15k]/ Menu Title:			Objective: [4]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**

Visual layout is the same as 1.15h-1.15j This layer has a green checkmark instead of a red "X".	[Layer Title] Nice work! [Body] It looks like you got it! [Button] Continue	No VO.	Continue button jumps to slide 1.18.

Slide [1.15l]/ Menu Title:			Objective: [4]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Visual layout is the same as 1.15h-1.15k. This layer has a red "X" icon like layers 1.15h, 1.15i & 1.15j. There are three buttons on this layer.	[Layer Title] Not Quite. [Body] How would you like to proceed? [Buttons] Try Again Show Me How and Try Again Show Me How and Move On	No VO.	The learner has a choice of how to proceed. The Try Again button hides this layer and jumps to layer 1.15a. The layer should resume the state it was in when the learner left the layer. The Show Me How and Try Again button hides this layer and jumps to slide 1.16. The Show Me How and Move On button hides this layer and jumps to slide 1.17.

Slide [1.16]/ Menu Title: [Hidden from Menu]			Objective: [4]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
This slide contains a screenshot video of slide 1.15 being completed correctly. The video should exclude the arrows that indicate the components and should not have any VO from the original slide. Instead, VO should be replaced on this slide to guide the learner. The video starts where the	Text on the slide is in the video. It is the same as the text on slide 1.15. [Button] Try Again	First, rotate the cylinder knob clockwise until CO2 begins to flow. Next, turn the regulator knob slowly until you see one bubble in the bubble counter per second. One Two Three Then, set the timer to turn the system on at 8 o'clock AM and off at 9 o'clock PM. This is the same times that the lights turn on and off. Now the system is set up properly.	When the slide begins, the VO and video start immediately. The actions in the video are completed timed with the VO to illustrate how to complete the simulation correctly. The view will zoom into each area on the slide when the VO mentions the following components: CO_2 cylinder knob, regulator knob & bubble counter (viewed together in zoom window), and the timer. This is to highlight each area for the learner.

learner starts the interaction (turning the CO_2 Cylinder Tank knob). The video is centered at the top of the slide with a black background. The Try Again button is centered below the video.			The numbers in the VO should sync with the bubbles in the bubble counter to indicate one bubble per second. The Try Again button jumps to layer 1.15a. The layer should resume the state that it was in when the learner left the layer.

Slide [1.17]/ Menu Title: [Hidden From Menu]			Objective: [4]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
This slide is identical in layout to 1.16, with the exception of the button that says “Continue” instead of “Try Again”.	Text on the slide is in the video. It is the same as the text on slide 1.15. [Button] Continue	First, rotate the cylinder knob clockwise until CO2 begins to flow. Next, turn the regulator knob slowly until you see one bubble in the bubble counter per second. One Two Three Then, set the timer to turn the system on at 8 o’clock AM and off at 9 o’clock PM. These are the same times that the lights turn on and off. Now the system is set up properly.	When the slide begins, the VO and video start immediately. The actions in the video are completed timed with the VO to illustrate how to complete the simulation correctly. The view will zoom into each area on the slide when the VO mentions the following components: CO_2 cylinder knob, regulator knob & bubble counter (viewed together in zoom window), and the timer. This is to highlight each area for the learner. The numbers in the VO should sync with the bubbles in the bubble counter to indicate one bubble per second. The Continue button jumps to slide 1.18.

Slide [1.18]/ Menu Title: Checking CO_2 Levels			Objective: [N/A]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
The background is an image of aquarium plants with bubbles on their leaves to illustrate the “pearling”	[Slide Title] **Checking CO_2 Levels** [Feature Text]	There are three methods for checking CO2 levels in the aquarium.	Next button is disabled when this timeline begins. Next button is set to normal when VO ends.

referenced in the text and voice over. About ⅔ of the slide has a semitransparent rectangle that extends from the top to bottom border. The rectangle is a gradient so that the background picture is clear on the right side of the slide.	CO2 Levels can be checked using three methods: Drop Checker – Can be installed in the aquarium. It contains a liquid that changes color based on how much CO2 is in the water. CO2 Test Strips – A CO2 testing strip kit can be used for spot testing. Visual Checking – “Pearling” is a good indication plants are getting enough CO2.	A drop checker can be installed in the aquarium. It contains a liquid that changes color based on how much CO2 is in the water. CO2 test strips can be used for spot testing at a certain point in time. However, they should be used every other day until levels have stabilized. If you choose to use one of these methods, please make sure to follow the manufacturer’s instructions. These items are not included with the Carbofuse CO2 Injection System. A visual check is another method. Because plants respire, they create oxygen. When they are at full respiration, small bubbles form on their leaves. This is called pearling and is a good indication that the plants are receiving enough carbon dioxide.	Text should fade in timed with the reference in the VO.

Slide [1.19]/ Menu Title: Final Assessment			**Objective: [N/A]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
This slide has the same visual layout as slide 1.6. All Quiz slides have this same visual layout (1.20, 1.21, 1.22, 1.23, 1.24 & 1.25	[Slide Title] **Final Graded Quiz** [Instructions] Let’s see what you have learned. This final quiz will contain: ● 5 Questions ● Variable Question Types ● 80% Required to Pass Click Next when you are ready to begin.	Let’s see what you have learned in this course. You will now be presented with five questions. Each question type is different. You must score 80% in order to pass. You can take the quiz as many times as you need to achieve a passing score. Click next when you are ready to begin.	Next button is disabled when this timeline begins. Next button is set to normal when VO ends. Text fades in timed with VO reference. Results slide is slide 1.25.

Slide [1.20]/ Menu Title: [Hidden from Menu]			Objective: [3]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Same visual layout as slides 1.6 & 1.19. Instructions are near the top of the slide to the left. Answer choices appear below instructions. The Diagram button is in a palette color and is set below the answer choices.	[Slide Title] **Question #1** [Question/Instructions] Put the Carbofuse CO_2 System installation steps in order. If you need a hint, you may click the diagram button below. [Answer Choices] 1. Connect the regulator to the CO2 Cylinder. 2. Connect the bubble counter to the regulator. 3. Connect the tubing to the bubble counter. 4. Connect the check valve to the tubing. 5. Connect the tubing to the diffuser. [Button] Diagram	Put the Carbofuse CO2 System installation steps in order. If you need a hint, you may click the diagram button below.	This slide is a sequence drag and drop question. Submit button is disabled when this slide begins. Submit button is set to normal when the VO ends. Next and Previous buttons are hidden. Text and answers fade in with title. VO begins automatically at the beginning of this slide. There is no immediate feedback. Learners should have 1 attempt. Diagram button jumps to lightbox slide 3.1. Slide advances to the next slide when the user clicks the Submit button.
Notes: Lightbox Slide 3.1 is located at the end of this document.			

Slide [1.21]/ Menu Title: [Hidden from Menu]			Objective: [2]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Same visual layout as slides 1.6, 1.19 & 1.20. Instructions are near the top of the slide to the left. Answer choices appear below the question.	[Slide Title] **Question #2** [Question/Instructions] Match the Carbofuse CO_2 Injection System components to their functions. [Answer Choices}	Which component of the Carbofuse CO2 System is used to dissolve CO2 into the water?	This is a matching drag and drop question. Submit button is disabled when this slide begins. Submit button is set to normal when the VO ends. Next and Previous buttons are hidden.

	[Choice A] The diffuser **[MATCH] releases tiny bubbles of CO_2 into the water.** [Choice B] The regulator **[MATCH] controls how much CO_2 is flowing through the system.** [Choice C] The check valve **[MATCH] prevents water from siphoning back into the system.** [Choice D] The timer **[MATCH] controls when the system turns on and off.**		Text and answers fade in with title. VO begins automatically at the beginning of this slide. There is no immediate feedback. Learners should have 1 attempt. States of drop items should change to green if correct and red if incorrect. This should be on the Review layer so that they are only visible after submitting the quiz and reviewing. Slide advances to the next slide when the user clicks the Submit button.

Slide [1.22]/ Menu Title: [Hidden from Menu]			**Objective: [1]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Same visual layout as slides 1.6, 1.19, 1.20 & 1.21. Question is near the top of the slide to the left. Answer choices appear below the question.	[Slide Title] **Question #3** [Question] A customer, Jessica, enters the store and seems concerned. She tells you that she recently installed the Carbofuse CO_2 Injection System. She says that she noticed that the pH in her aquarium is extremely low in the morning. Her fish are OK, but she asks you why the pH swings may be happening. How do you respond? [Answer Choices] Swings in pH are normal when installing a CO_2 Injection system, so there is no need for concern.	A customer, Jessica, enters the store and seems concerned. She tells you that she recently installed the Carbofuse CO_2 Injection System. She says that she noticed that the pH in her aquarium is extremely low in the morning. Her fish are OK, but she asks you why the pH swings may be happening. How do you respond? Please select the best response from the choices below.	This is a multiple choice question. Submit button is disabled when this slide begins. Submit button is set to normal when the VO ends. Next and Previous buttons are hidden. Text and answers fade in with title. VO begins automatically at the beginning of this slide. There is no immediate feedback. Learners should have 1 attempt. Slide advances to the next slide when the user clicks the Submit button.

	CO_2 injection causes pH to drop. It's important to make sure the system turns off when the lights turn off since the plants are not consuming carbon dioxide. [CORRECT ANSWER] When plants consume carbon dioxide, it causes the pH to drop in the aquarium. This can be remedied by adjusting the regulator.		

Slide [1.23]/ Menu Title: [Hidden from Menu]			**Objective: [4]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Same visual layout as slides 1.6, 1.19, 1.20, 1.21 & 1.22. Question is near the top of the slide to the left. Answer choices appear in rectangles of a solid palette color on the vertically aligned on the right side of the slide. Answer choices are not in the correct order. Below the question, there are three white rectangles that are the same size as the answer choice rectangles. They are aligned horizontally. Instructions are in a smaller font just above the three white rectangles.	[Slide Title] **Question #4** [Question] A customer, Richard, enters the store and explains that he installed the Carbofuse CO_2 Injection system in his aquarium a few days ago. He says he has the system set to turn on and off when the lights turn on and off. It seems that there is not enough CO_2 flowing through the system, as his test kit indicates insufficient levels of CO_2. How do you respond? [Instructions} Drag the steps on the right to the boxes below in the correct order. [Answer Choices] **[Rectangle 1] Adjust the regulator**	A customer, Richard, enters the store and explains that he installed the Carbofuse CO_2 Injection system in his aquarium a few days ago. He says he has the system set to turn on and off when the lights turn on and off. It seems that there is not enough CO_2 flowing through the system, as his test kit indicates insufficient levels of CO_2. How do you respond? Drag the steps on the right to the boxes below in the correct order.	This is a freeform drag and drop question. Submit button is disabled when this slide begins. Submit button is set to normal when the VO ends. Next and Previous buttons are hidden. Text and answers fade in with title. VO begins automatically at the beginning of this slide. There is no immediate feedback. States of drop items should change to green if correct and red if incorrect. This should be on the Review layer so that they are only visible after submitting the quiz and reviewing. Learners should have 1 attempt.

	[Rectangle 2] Make sure there is about one bubble per second rising in the bubble counter. **[Rectangle 3] Wait for 24 hours and then test again.**		Slide advances to the next slide when the user clicks the Submit button.

Slide [1.24]/ Menu Title: [Hidden from Menu]			Objective: [4]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Same visual layout as slides 1.6, 1.19, 1.20, 1.21, 1.22 & 1.23. Instructions and question are near the top of the slide to the left. The drop area is at the end of the question like it is a blank to an incomplete statement. Answer choices appear below the question drop area. Each choice is in a drag and drop box.	[Slide Title] **Question #5** [Question] A customer, Jamie, enters the store and tells you that they are unsure of how to control how much CO_2 is flowing through the system. They say that they are adjusting the CO_2 cylinder tank knob, but it is not changing the rate of the bubbles in the bubble counter. How do you respond? [Answer Choices] Continue to check the CO_2 levels using a test kit. They should eventually stabilize. Make sure the CO_2 cylinder tank knob is fully open. **The regulator knob is used to control how much CO_2 is flowing through the system, not the CO_2 cylinder knob. [CORRECT ANSWER].**		This is a multiple choice question. Submit button is disabled when this slide begins. Submit button is set to normal when the VO ends. Next and Previous buttons are hidden. Text and answers fade in with title. VO begins automatically at the beginning of this slide. There is no immediate feedback. Learners should have 1 attempt. Slide advances to the next slide when the user clicks the Submit button.

Slide [1.25]/ Menu Title: [Hidden from Menu]			Objective: [N/A]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**

Same visual layout as slides 1.6, 1.19, 1.20, 1.21, 1.22, 1.23 & 1.24 This slide has a box centered on the screen from left to right and slightly below center on the Y axis. This allows for the layers to show the results. The box says “Your Score” and “Passing Score xx%” with a space between the text for the results score.	[Slide Title] **Quiz Results**	No VO.	Use a Result side to show Success layer 1.25a when timeline starts if results are equal to or greater than the passing score. Show Failure layer 1.25b when timeline starts if results are less than passing score. Base layer will be visible (show through) from Success or Failure slide layers. Results variable reference shows the percent score only. Do not show the points variable reference. Built in graded quiz variable reference displays learner score where **XX** appears on slide 80% to pass shown where **YY** appears on slide

Slide [1.25a]/ Menu Title:			**Objective: [N/A]**
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Above the results box, there is a green check mark to show success. Just under the checkmark is the success text. Below the results box are the instructions. Set below the instructions are the Review Quiz and Continue buttons.	[Success Text] Nice job, you passed! [Instructions] Click Review to see your results or click Continue to move on. [Buttons] Review Quiz Continue	Nice job, you passed! Click review quiz to see your results or click continue to move on.	Review button: shows correct/incorrect response when reviewing Continue button: jumps to Slide 1.26

Slide [1.25b]/ Menu Title: [Hidden from Menu]			Objective: [N/A]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
Above the results box, there is a red "X" icon to show failure. Just under the "X" icon is the failure text. Below the results box are the instructions. Set below the instructions are the Review Quiz and Retry Quiz buttons.	[Failure Text] Sorry, you didn't pass. [Instructions] Click Review to see your results or click Retry Quiz to take it again. [Buttons] Review Quiz Retry Quiz	Sorry, you didn't pass. Click review quiz to see your results or click retry quiz to take it again.	Review Quiz button: shows correct/incorrect response when reviewing Retake Quiz button: resets results slide and jumps to Slide 1.20.

Slide [1.26]/ Menu Title: Summary			Objective: [N/A]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
The background of the slide is a photo of a planted aquarium with fish in it. This slide has a semi-transparent palette color rectangle extending from the top to the bottom border. About ⅔ of the slide is covered with this rectangle. The rectangle has a gradient so that the background is visible and unobstructed on the right side.	[Slide Title] **Summary** [Feature Text] You should not be able to: Describe how carbon dioxide injection affects the planted aquatic environment. Identify the functions of the Carbofuse CO2 Injection System components. List the installation steps of the Carbofuse CO_2 Injection System. Explain the operation of the Carbofuse CO_2 Injection System.	Well done! You are nearing the end of this course. You should now be able to: Describe how carbon dioxide injection affects the planted aquatic environment. Identify the functions of the Carbofuse CO2 Injection System components, and List the installation steps of the Carbofuse CO_2 Injection System. Explain the operation of the Carbofuse CO_2 Injection System.	Text fades in timed with the VO reference. Next button is disabled when this slide begins. Next button is set to normal when VO ends. Next button jumps to the next slide (1.27).

Slide [1.27]/ Menu Title: Congratulations			Objective: [N/A]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
This slide is similar in layout to slide 1.1. No top/bottom border Background video: Video of fish swimming in a heavily planted aquarium. Should be different from the video used in Slide 1.1. Congratulations! message set in semitransparent shape overlaying the background video. Custom Complete button.	[Heading Text] Congratulations! [Instructions] Click the Complete button to end this course. [Button] Complete	Congratulations on completing this course. Now you will be able to answer customer questions regarding the components, installation and operation of the Carbofuse CO_2 Injection System. You may click the complete button to exit the course.	Text and button appear timed with VO reference. Complete button exits the course.

Slide [3.1]/ Menu Title: Hidden from Menu			Objective: [#]
Visual / Display:	**Slide Text:**	**Narration / Voiceover:**	**Animation / Interaction:**
This slide is a lightbox slide. There is no top or bottom border. The entire slide contains the complete diagram of the Carbofuse CO_2 Injection System. This can be the same diagram that appears on slide 2.1.	No Slide Title or Text.	No VO.	This is a lightbox slide. So it should automatically have an “X” to close the slide. This slide is accessed by clicking on the Diagram button on slide 1.20. When the user clicks the “X”, it hides this slide and shows slide 1.20.
Notes: This is a lightbox slide and is the only slide in scene 3.			