

Chapter 4

Fast ForWord to Literacy

This chapter describes each of the Fast ForWord to Literacy exercises and then outlines the administration process. For information on how to install, set up, or run the software, refer to the *How to Use Fast ForWord® Gateway Edition* manual.

Fast ForWord to Literacy is the first product in the secondary education product sequence.

The Exercises

The Fast ForWord to Literacy product consists of six exercises: three sound exercises and three word exercises. The exercises work together to help develop the understanding of basic speech sounds as well as the fundamental cognitive skills essential for learning and reading.

The sound exercises present complex auditory information in a sub-word format, such as frequency sweeps and syllables. In some instances, the speech sounds have been digitally generated using patented methods (including selective intensity increases and duration extensions) to provide enhanced learning opportunities. The following three sound exercises are described in this chapter:

- Space Racer
- Galaxy Goal
- Spin Master

The word exercises present words, either in isolation or within sentences, with various levels of linguistic complexity. In some instances, the speech sounds have been digitally altered using patented methods (including selective intensity increases and duration extensions) to provide enhanced learning opportunities. The following three word exercises are described in this chapter:

- Lunar Tunes
- Star Pics
- Stellar Stories

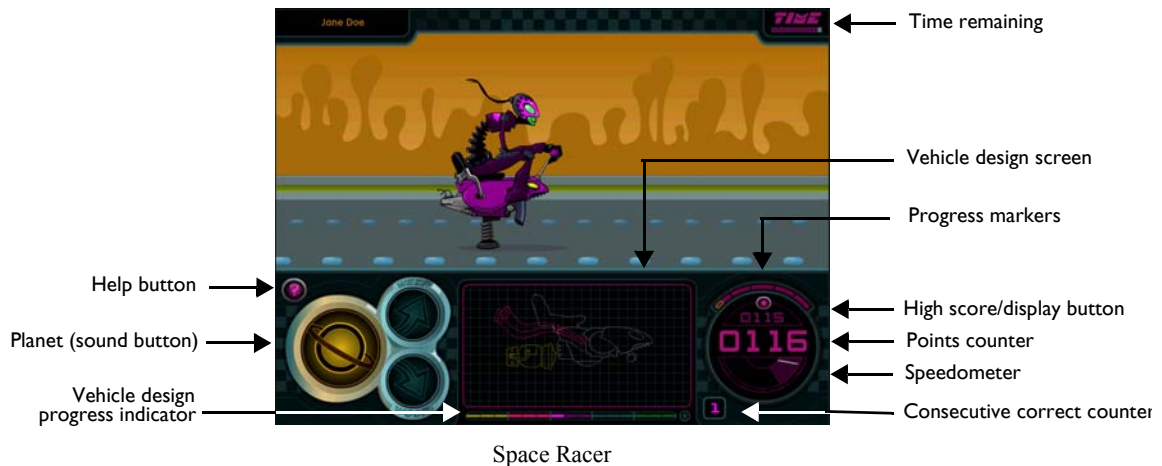
Each of the exercises in the Fast ForWord to Literacy product begins with an introduction that explains how to work on that exercise. The Fast ForWord to Literacy product also provides these introductions in Spanish, for an individual participant or a group of participants. To enable the Spanish introductions, refer to “Customizing the Products for Participants” on page 51 in *How to Use Fast ForWord® Gateway Edition*.

Space Racer

Space Racer helps improve the speed at which the participant identifies and understands rapid, successive changes in sound (listening accuracy), and the ability to recognize and remember the order in which a series of sounds is presented (auditory sequencing).

Space Racer presents sound sweeps using different frequency ranges, different sequences of sounds, and different time durations. The frequencies and durations of the sound sweeps correspond to some of the rapid transitions in the sounds of the English language.

The object of Space Racer is to race on the space track as quickly as possible by correctly identifying a sequence of two sound sweeps.



The participant clicks the yellow sound button to hear a sequence of two sound sweeps. A sound sweep is classified as *up* (a lower to higher frequency) or as *down* (a higher to lower frequency). The participant must click the up arrow or down arrow to identify the sequence of sounds heard. For example, if the exercise presents an up sweep and then a down sweep, the participant must click the up arrow once, and then click the down arrow once. If the exercise presents two down sweeps, the participant must click the down arrow twice. Points are awarded when the sequence is correctly reproduced.

The consecutive correct counter indicates the number of consecutive correct responses. When the participant answers three consecutive trials correctly, a reward animation plays and the counter is reset to zero (0).

In each session, the space racer's speed increases and the racer's vehicle begins to wear down as the participant answers trials correctly. The speedometer indicates the speed of the racer. Once the speedometer enters the pink zone, the participant can start building a new vehicle. Each time the participant answers three consecutive trials correctly three times, the vehicle design screen adds a new part to the racer's next vehicle. The vehicle design progress marker indicates the number of parts that have been added to the vehicle. When the new vehicle is completely built, the vehicle transforms.

The bars above the speedometer indicate the percentage of the content completed in the exercise. Each bar represents 10% of the exercise. When all of the progress markers are filled in, the exercise is complete.

The high score represents the highest score ever achieved by the participant in one session. If the high score is distracting, the participant can hide it by clicking the corresponding display button.

As the participant progresses in the exercise, Space Racer decreases the duration of the sound sweeps and the length of time between the sound sweeps, challenging the participant to improve his or her rate of auditory processing.

Space Racer Help

If the participant needs assistance identifying the sound sweeps, the participant can click the Help (?) button to see all four possible sequences of sound sweeps for the current frequency (Hz), duration (length of each sound sweep), and ISI (time between sound sweeps).



Space Racer Help

When help opens, the participant can click a yellow planet to hear the corresponding sequence of sound sweeps. To see the response buttons highlight as the sound sweeps are played, the participant can click the radio button at the bottom of the screen.

NOTE Using help does not affect the participant's standing in Space Racer.

Space Racer starts with a preparatory stage for each frequency sweep in the exercise. When the participant masters the preparatory stage for a frequency, the exercise automatically begins. The preparatory stage will be revisited when the next frequency is encountered.

The participant will continue to work on the exercise until the skills in the exercise are mastered. If Space Racer is reopened, the participant will continue to repeat the content at the shortest durations.

TIP The following keyboard shortcuts are available in Space Racer:

Button	Keyboard shortcut
Sound button	Left arrow or space bar
Up arrow button	Up arrow
Down arrow button	Down arrow

Galaxy Goal

Galaxy Goal helps improve the ability to identify and manipulate speech sounds in a quick and efficient manner (phonological fluency), the ability to remain focused on a given task while ignoring distractions and refraining from impulsive behavior (sustained attention), and the capacity for holding speech sounds in memory (phonological memory).

The object of Galaxy Goal is to click the soccer ball after correctly identifying when a new syllable interrupts a repeated syllable.



Galaxy Goal

The participant clicks the yellow planet on the soccer ball to hear a syllable repeated in rapid succession. When the exercise interrupts the repeated syllable with a new syllable, which differs by a single phoneme, the participant must click the soccer ball again. If the soccer ball is clicked too early or too late, the trial is counted as incorrect. When the participant answers the trial correctly, the player kicks the soccer ball toward the goal. Points are awarded for each correct answer.

The consecutive correct counter indicates the number of consecutive correct responses. When the participant answers three consecutive trials correctly, a reward animation plays and the counter is reset to zero (0). When the participant answers three consecutive trials correctly three times, bonus points are awarded and a reward animation plays.

The bars in the upper left corner indicate the percentage of the content completed in the exercise. Each bar represents 10% of the exercise. When all of the bars are filled in, the content is complete.

The high score represents the highest score ever achieved by the participant in one session. If the high score is distracting, the participant can hide it by clicking the corresponding display button.

Galaxy Goal first presents syllables that have been digitally generated using patented methods (including selective intensity increases and duration extensions) to provide enhanced learning opportunities. As the participant progresses through the exercise, Galaxy Goal decreases this processing, and eventually presents the repeated syllables at the rate of natural speech. Also, as the participant progresses through the exercise, Galaxy Goal decreases the length of time between the repeated syllables.

The participant will continue to work on the exercise until the skills in the exercise are mastered. If Galaxy Goal is reopened, the participant will continue to repeat the content at the highest stages in each phoneme contrast pair.

TIP The following keyboard shortcuts are available in Galaxy Goal:

Button	Keyboard shortcut
Planet-start trial	Down arrow or space bar
Planet-response	Up arrow

Spin Master

Spin Master helps improve the ability to make correct distinctions based on individual phonemes (phonological accuracy), the ability to identify and manipulate speech sounds in a quick and efficient manner (phonological fluency), and the capacity for holding speech sounds in memory (phonological memory).

The object of Spin Master is to identify a target syllable when presented in a sequence of two syllables.



The participant clicks the yellow planet to hear a target syllable. The participant must listen carefully as the DJ plays two syllables, one on each turntable. One turntable plays the target syllable, and the other plays a syllable that differs from the target syllable by a single phoneme. The participant must click the turntable that played the target syllable. Points are awarded for each correct answer, and bonus points are awarded after 10 correct answers.

The consecutive correct counter in the reel indicates the number of consecutive correct responses. When the participant answers three consecutive trials correctly, a ring on the reel fills in, and the counter is reset to zero (0). When all three rings in the reel are filled in, the DJ launches the two discs from the turntables into the open slots on the dance floor. When three sets of discs have been launched, the disco party moves up to the next floor after the next three consecutive correct trials.

The bars in the laser generator indicate the percentage of the content completed in the exercise. Each bar represents 10% of the exercise. When all of the bars are filled in, the content is complete.

The high score represents the highest score ever achieved by the participant in one session. If the high score is distracting, the participant can hide it by clicking the corresponding display button.

Spin Master first presents syllables in which the speech sounds have been digitally generated using patented methods (including selective intensity increases and duration extensions) to provide enhanced learning opportunities. As the participant progresses through the exercise, Spin Master decreases this processing, and eventually presents the syllables using natural speech parameters. Also, as the participant progresses through the exercise, Spin Master decreases the length of time between syllable choices.

The participant will continue to work on the exercise until the skills in the exercise are mastered. If Spin Master is reopened, the participant will continue to repeat the content at the highest stages in each phoneme contrast pair.

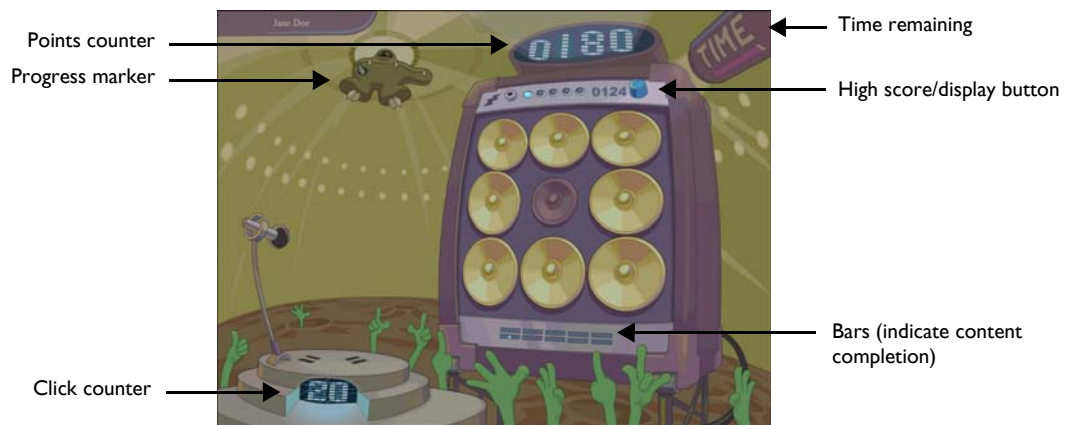
TIP The following keyboard shortcuts are available in Spin Master:

Button	Keyboard shortcut
Planet (sound button)	Down arrow or space bar
Left turntable	Left arrow
Right turntable	Right arrow

Lunar Tunes

Lunar Tunes helps improve the ability to accurately identify spoken words by relying on sound cues alone, without the aid of visual or context cues (auditory word recognition). It also helps develop the capacity for holding speech sounds in memory (phonological memory), the ability to identify and manipulate speech sounds in a quick and efficient manner (phonological fluency), and the ability to make correct distinctions based on individual phonemes (phonological accuracy).

Lunar Tunes displays an amplifier with speakers in groups of four, eight, and sixteen. Each speaker has a syllable or word associated with it. The object of Lunar Tunes is to match all the syllables and words into pairs using the fewest clicks.



Lunar Tunes

The participant clicks a yellow speaker to hear Lunar Tunes pronounce a syllable or word. The participant must click the other yellow speakers on the amplifier to find the speaker with the matching syllable or word. If the participant clicks a speaker that matches one already clicked, the participant must click the first speaker of the pair to confirm the match. The two speakers turn off. Points are awarded for each correct match.

The click counter beneath the stage displays the number of attempts (clicks) available to match all of the speakers on the screen. Each time the participant clicks a speaker, this number is reduced by one. However, even when this number reaches zero, the participant can still match syllables and words. For each correct match, the instrument case lowers a bit closer to the stage. When the participant matches all of the speakers on the screen within the allowed number of clicks, the instrument case plugs into the stage, opens, and a musician jumps onto the stage and awards any remaining clicks as bonus points.

The bars below the speakers indicate the percentage of the content completed in the exercise. Each bar represents 10% of the exercise. When all of the bars are filled in, the content is complete.

The high score represents the highest score ever achieved by the participant in one session. If the high score is distracting, the participant can hide it by clicking the corresponding display button.

Lunar Tunes first presents syllables and words in which the speech sounds have been digitally altered using patented methods (including selective intensity increases and duration extensions) to provide enhanced learning opportunities. As the participant progresses through the exercise, Lunar Tunes decreases this processing, and eventually presents the syllables and words using natural speech.

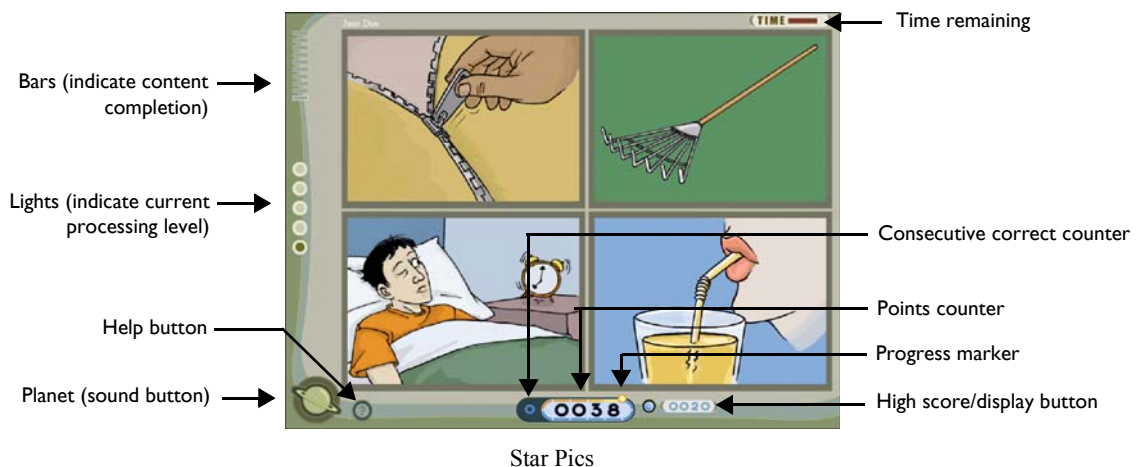
The participant will continue to work on the exercise until the skills in the exercise are mastered. If Lunar Tunes is reopened, the participant will continue to repeat the content at the highest level.

Star Pics

Star Pics helps build knowledge of the phonological structure and meaning of words (vocabulary), and helps develop the ability to accurately identify spoken words by relying on sound cues alone, without the aid of visual or context cues (auditory word recognition).

Star Pics also improves the ability to make correct distinctions based on individual phonemes (phonological accuracy), and the ability to identify and manipulate speech sounds in a quick and efficient manner (phonological fluency).

The object of Star Pics is to identify the picture that represents a pronounced target word.



The participant clicks the yellow planet to hear a word pronounced. Four pictures appear on the screen. The participant must click the picture that represents the pronounced word. Points are awarded for each correct answer.

The consecutive correct counter indicates the number of consecutive correct responses. When the participant answers three consecutive trials correctly, the progress marker above the score advances and the counter is reset to zero (0). Bonus points are awarded when the progress marker completes one rotation around the score.

The bars in the upper left corner indicate the percentage of the content completed in the exercise. Each bar represents 10% of the exercise. When all of the bars are filled in, the content is complete.

The high score represents the highest score ever achieved by the participant in one session. If the high score is distracting, the participant can hide it by clicking the corresponding display button.

Star Pics first presents words in which the speech sounds have been digitally altered using patented methods (including selective intensity increases and duration extensions) to provide enhanced learning opportunities. As the participant progresses through the exercise, Star Pics decreases this processing, and eventually presents the words using natural speech. The lights on the left side of the screen represent the different speech processing levels in Star Pics. The light at the bottom represents level 1, and the light at the top represents level 5.

At the highest level, Star Pics presents more advanced vocabulary from the other exercises in the product, such as Stellar Stories; and academic vocabulary, such as math and science terminology.

Star Pics Help

If the participant needs assistance with the vocabulary, the participant can click the Help (?) button next to the yellow planet to activate help. A question mark inside the planet indicates that help is on. When help is active, Star Pics pronounces the word for each picture and briefly displays the picture on the screen before each trial is presented. This allows the participant to review the vocabulary before the actual trial starts.

Help remains active until the participant turns it off by clicking the Help button again, or until the participant completes all of the trials in the current content group.

NOTE When help mode is active, the participant will receive less points for a correct answer. In addition, bonus points will not be earned, and the trial will not count for advancement in the exercise.

The participant will continue to work on the exercise until the skills in the exercise are mastered. If Star Pics is reopened, the participant will continue to repeat the content at the highest level.

TIP	The following keyboard shortcuts are available in Star Pics:	
	Button	Keyboard shortcut
	Planet (sound button)	Down arrow
	Pictures, top left to bottom right	Number keys 1 through 4

Stellar Stories

Stellar Stories helps improve the ability to understand successive sentences and derive meaning from a story (listening comprehension). It helps improve the ability to listen to spoken directions of increasing length and complexity, comprehend them, and keep them in memory long enough to plan and carry out the required action (following directions).

Stellar Stories also helps build an understanding of the elements of the English language, including proper word order, syntax, prefixes and suffixes, plurals, and subject-verb agreement (English language conventions), and helps build knowledge of the phonological structure and meaning of words (vocabulary).

The object of Stellar Stories is to listen to a story, and then answer questions and follow instructions related to the story.



Stellar Stories consists of three stories in five levels. The exercise presents the first story in which the speech sounds digitally altered using patented methods (including selective intensity increases and duration extensions) to provide enhanced learning opportunities. As the participant progresses through the exercise, Stellar Stories decreases this processing, and eventually presents the last story using natural speech.

The lights on the left side of the screen indicate the current story and processing level in the exercise. The light at the bottom represents level 1, and the light at the top represents level 5.

Story	Processing Level
It Happened One Night	Level 1 (most processed)
The Tank of Dr. Wong	Level 2
Something About Sally	Level 3
The Tank of Dr. Wong	Level 4
Something About Sally	Level 5 (natural speech)

Each story presents four chapters, and each chapter includes the following activities:

- **Narration and story comprehension** – Presents a chapter of the story, then presents questions that test the comprehension of the story
- **Sentence comprehension** – Presents questions that test the comprehension of sentences
- **Following directions** – Presents activities that test the ability to comprehend and follow directions

When the participant completes all three activities in a chapter, Stellar Stories presents the next chapter in the current story. This continues until all four chapters for the current story have been completed.

Stellar Stories – Narration and Story Comprehension

During the narration, the exercise aurally presents a chapter of the story with illustrations. To start the narration, the participant clicks the yellow planet. The current chapter is indicated at the bottom of the screen. The chapter length icons next to the current chapter indicate the number of pages in that chapter. As a page is presented, the corresponding icon highlights, indicating the location in the chapter.

The story comprehension activity presents questions that relate to the current chapter of the story. When the narration ends, the participant clicks the yellow planet to hear a question. The participant must click the picture that illustrates the correct answer. Points are awarded for each correct answer.



Stellar Stories – Story Comprehension

Stellar Stories – Sentence Comprehension

The sentence comprehension activity presents a sentence and two to four pictures that are possible representations of the sentence. The participant clicks the yellow planet to hear a sentence. Then the participant must click the picture that is the most accurate representation of the sentence. Points are awarded for each correct answer.



Stellar Stories – Sentence Comprehension

The sentence comprehension activity develops the understanding of language structures by challenging the participant to understand spoken sentences and then identify visual representations of each sentence. These questions and sentences include grammatical structures with a range of difficulty. For example:

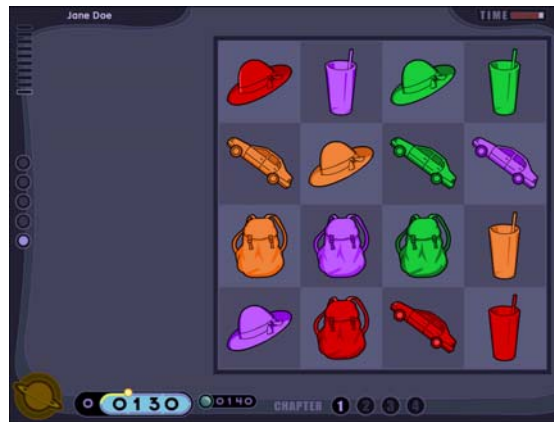
- “Sally sees the envelopes on the table.” (easier)
- “The girl that is hugging the baby brother is laughing.” (harder)

TIP The following keyboard shortcuts are available for the story/sentence comprehension activities:

Button	Keyboard shortcut
Planet (sound button)	Down arrow or space bar
Responses, top left to bottom right	Number keys 1 through 4

Stellar Stories – Following Directions

The following directions activity presents sentences that instruct the participant to manipulate one or more objects. The participant clicks the yellow planet to hear an instruction. The participant must use the mouse to follow that instruction. To move an object, the participant must click and hold the mouse, drag the object to the new location, then release the mouse button. Points are awarded for each correct answer. If an incorrect object is clicked, or an object is moved to an incorrect location, the trial ends and the correct response is demonstrated.



Stellar Stories – Following Directions

In the following directions activity, as the participant progresses, the exercise presents increasingly complex directions that the participant must understand in order to follow and execute them. These instructions include a range of difficulty. For example:

- “Touch the purple soda and the green backpack.” (easier)
- “Put the small orange hat between the purple soda and the green backpack.” (harder)

Throughout Stellar Stories, the consecutive correct counter indicates the number of consecutive correct responses. When the participant answers three consecutive trials correctly, the progress marker above the score advances and the counter is reset to zero (0). Bonus points are awarded when the progress marker completes one rotation around the score.

The bars in the upper left corner indicate the percentage of the content completed in the exercise. Each bar represents 10% of the exercise. When all of the bars are filled in, the content is complete.

The high score represents the highest score ever achieved by the participant in one session. If the high score is distracting, the participant can hide it by clicking the corresponding display button.

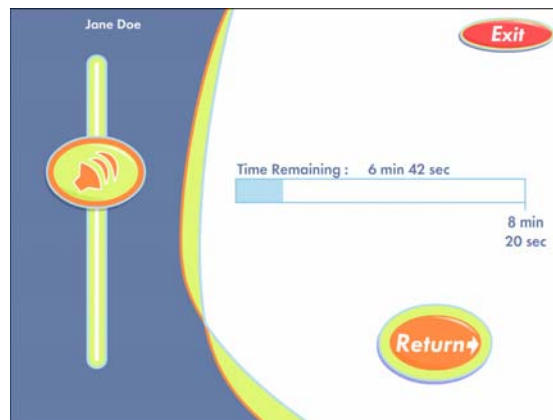
The participant will continue to work on the exercise until the skills in the exercise are mastered. If Stellar Stories is reopened, the participant will continue to repeat the last story at the highest level.

Administering the Exercises

Use the following information to help administer the Fast ForWord to Literacy product session. For details on how to start the exercises, please refer to Chapter 3, “Using the Fast ForWord Products” in *How to Use Fast ForWord® Gateway Edition*.

Checking the Exercise Status

Use the Exercise Status screen to adjust the volume, view the time remaining, or quit the current exercise early.



Exercise Status

To access the Exercise Status screen while a participant is working on an exercise:

- **Windows** – Press and hold the Control key, then press =
- **Macintosh** – Press and hold the Command key, then press =

Please note that the Exercise Status screen cannot be accessed during a reward animation or during a trial.

When the Exercise Status screen is open:

- To adjust the volume, click and drag the sound button on the left of the screen.
- To return to the exercise, click Return.
- To quit the exercise, click Exit.



The exercise clock does not pause while the Exercise Status screen is displayed. If the participant needs to take a break, allow the participant to take the break after the exercise ends.

Completing an Exercise

When the participant completes an exercise for the day, the product returns to the Select an Exercise screen. To continue working, the participant must click another exercise. To take a short break, the participant should remain at the Select an Exercise screen. When the participant is ready to work again, the participant can select the next available exercise.

Completed exercises appear grayed out on the Select an Exercise screen and cannot be selected.

NOTE Exercises also appear grayed out on the Select an Exercise screen when the exercise is closed because the content in the exercise has been mastered. See “Completing the Product” on page 69 for details.

Exiting an Exercise Early

If the participant exits an exercise early, that exercise will appear grayed out on the Select an Exercise screen for the rest of the session. To complete the exercise, the participant must start a new session. The following example illustrates this process:

- A participant works on Space Racer for 5 minutes in the morning and uses the Exercise Status screen to exit the exercise before the required 8 minutes is complete. That exercise appears grayed out on the Select an Exercise screen. However, when that participant returns that afternoon and opens the product to the Select an Exercise screen, Space Racer is available and only requires 3 more minutes of work to complete the exercise for that day.

The participant should continue working on all available exercises until the exercises are completed and the protocol for the day is met.

Completing the Session

When the participant completes all of the exercises scheduled for that day, participation bonus points are awarded and the Success Viewer appears.

NOTE A participant can return to the exercises and continue working after the session is completed. This will not affect the next day's protocol.

Exiting the Session Early

If the participant exits the session early, the Success Viewer appears. However, the participant should start another session that day and continue working until all of the exercises are completed and the protocol for the day is met.

The Success Viewer

At the end of each session, the product calculates the results for that participant and displays those results in the Success Viewer. This provides the participant with an immediate review of his or her performance, as a reward and a motivation to continue working on the exercises.

For a more detailed performance review, to review performance for groups of participants, or to review performance at a later date, use the Fast ForWord Gateway Edition Results screen. Please refer to Chapter 5, “Reviewing Results” in *How to Use Fast ForWord® Gateway Edition* for more information about this feature.

TIP For the most detailed performance review, including extensive historical reports, Scientific Learning provides Fast ForWord Progress Tracker. For more information on this powerful product, visit our Web site at www.scientificlearning.com/products.

The Success Viewer Screens

When the Success Viewer appears, it displays the Points screen. The Points screen shows the points earned on the last participation day (the current day if the participant has just finished working), and the total points earned for each exercise. The Points screen also displays the last day’s total points and the grand total points for all exercises.

NOTE The number of points earned in an exercise does not always reflect the participant’s performance in that exercise; points are used only as a reward for correct answers, and to encourage the participant to continue working on the products.

The Points screen displays a clock next to an exercise when the participant works on the exercise for the required number of minutes that day. When the protocol for the day is met, a clock appears next to all of the exercises, and the screen displays the participation bonus points.

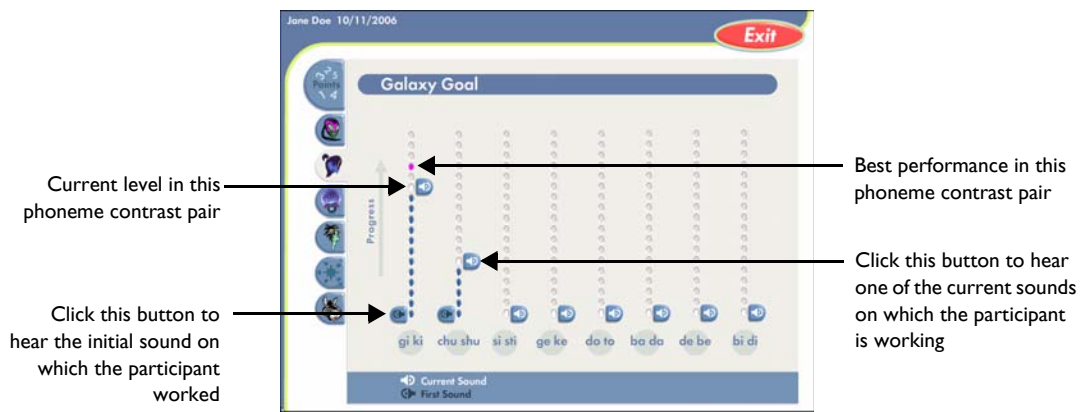
Click a tab to view performance in an exercise or return to the Points screen

Points	Last Day	Total
Space Racer	116	231
Galaxy Goal	44	186
Spin Master	39	193
Lunar Tunes	180	304
Star Pics	40	60
Stellar Stories	30	270
Participation Bonus	100	200
Last Day's Total		549
Grand Total		1444

Success Viewer – Points

To view details about the participant’s performance in each individual exercise, or to return to the Points screen, click the corresponding tab on the left side of the screen. To exit the Success Viewer from any screen, click Exit.

The screens for Space Racer, Galaxy Goal, and Spin Master display a vertical graph for each phoneme contrast pair or sound sweep duration. (An example of Galaxy Goal is shown.)



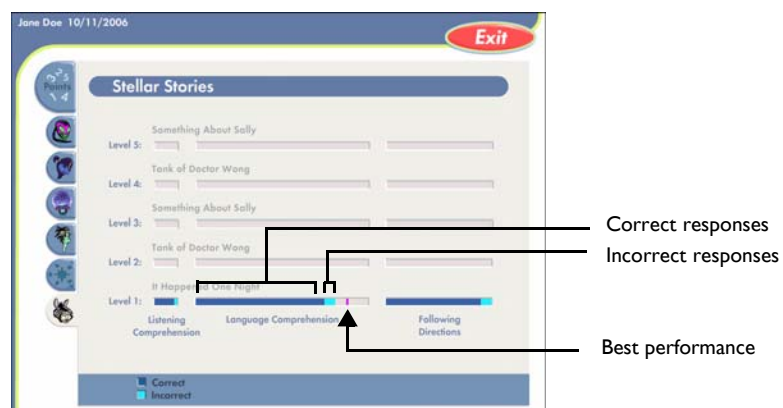
Success Viewer – Galaxy Goal

The screens for Lunar Tunes and Star Pics display boxes for the content in the exercises. (An example of Star Pics is shown.)



Success Viewer – Star Pics

The screen for Stellar Stories displays horizontal bar graphs for each story.



Success Viewer – Stellar Stories

The Default Protocol

By default, the Fast ForWord to Literacy product presents six exercises, for a total of 50 minutes each day. Each day's participation time can be divided into multiple sessions.

Using this protocol, Scientific Learning recommends that the participant work on the Fast ForWord to Literacy product five days a week, for an estimated 8 to 12 weeks.

A consistent daily routine that allows for intense repetition will maximize the benefits of the exercises. The participant may take breaks between exercises, but not while an exercise is open.



Alternate protocols are available to meet different participant requirements. Please refer to "Selecting an Alternate Protocol" on page 51 in *How to Use Fast ForWord® Gateway Edition* for more information. For details on all available protocols, refer to the *Fast ForWord Best Practices Implementation Workbook*, available online at www.scientificlearning.com/gateway/bestpractices.

Completing the Product

As the participant masters the exercises in the Fast ForWord to Literacy product, those exercises are closed. However, closed exercises may reopen at the highest levels, so that the participant can continue working on the most important skills in the product. When less than six exercises are open, the protocol will adjust so that the participant works on the open exercises for the total number of minutes in the protocol.

When the participant masters the last of the remaining exercises, all of the exercises are closed, and the product is complete.