KARLOON'S BALLOONS

Karloon's Balloons addresses auditory memory. With strong short-term and sequential auditory memory skills, the student is better able to decode words and comprehend what he or she reads.

Primary Skills

Auditory Attention, Auditory Short-term Memory, Auditory Sequential Memory, Auditory Performance with Competing Signals

Tasks

Task 1: Auditory memory for environmental sounds (6 levels)
Task 2: Auditory memory for one-syllable words (12 levels)
Task 3: Auditory memory for digits (12 levels)
Task 4: Auditory memory for phonemes (8 levels)

Learning Variables

Stimulus number, visual cues, and background noise are learning variables applied throughout the four tasks in Karloon's Balloons. An explanation of each follows.

Stimulus Number

Karloon's Balloons provides systematic skill training across 38 levels of instruction. The student develops auditory sequential memory by learning to recall and sequence a series of one, two, then three environmental sounds; one, two, three, then four words; one, two, three, then four digits; and one, two, three, then four phonemes. Initially, the student is asked to respond to one stimulus sound at a time. As the student successfully progresses through the activity, additional stimuli are added, increasing the number of items the student must hold in memory and sequence.

Visual Cues

In addition to building auditory sequential memory by increasing the number of items the student must remember, Karloon's Balloons also helps develop auditory skills by removing visual cues. Initially, the student sees pictures while hearing the stimuli. These visual cues help the student respond correctly. As he or she progresses, the visual cues do not appear until after the stimuli are presented. This requires the student to rely on auditory memory skills for his or her response.

Background Noise

Once the student successfully sequences four items without visual cues, Karloon's Balloons presents the stimuli in the presence of competing background noise. Karloon's Balloons begins by introducing low-level background noise. As the student's skills improve, the volume of the background noise is increased.

How To Play

Keep Karloon's balloons from popping by recalling a series of sound effects, words, numbers and speech sounds. If looping is enabled for a student or a group of students,

Related Skills

Auditory and Phoneme Discrimination, Auditory Identification, Phoneme Identification, Sound-Symbol Correspondence, Following Oral Directions

Karloon's Balloons will start automatically after five seconds once students log in. If looping is disabled, click on the **Karloon** icon on the Progress Chart to begin.

Nine picture boxes appear on the left side of the screen. Karloon presents a sound effect.

After listening to the sound effect, position the cursor over the picture corresponding to the sound effect and wait until a red frame appears around the picture (note: the cursor will disappear during the presentation of the sound effect). Then click on the picture before one of Karloon's balloons pops.

When two sound effects are presented, click on the corresponding pictures in the order the sounds were presented.

After three consecutive correct responses, Karloon's Balloons automatically advances the level of difficulty by increasing the number of sound effects.

Karloon's Balloons continues to advance in difficulty by increasing the number of stimuli, concealing visual cues until after the stimuli have been presented, varying the types of stimuli and introducing two levels of background crowd noise.

After two consecutive incorrect responses, the level of play decreases automatically.

Scoring: correct response, incorrect response



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"Listen to the sound. Click on the pictures in the order you hear them."

Task 1: Auditory Memory for 1–3 Environmental Sounds (6 levels)



Delayed Visual Cueing

Student does not see pictures until after the auditory stimulus is presented. This delay of visual cueing requires the student to rely only on auditory memory to complete the task.

Visual Cueing

Student simultaneously sees the pictures and hears the sounds.

Task 2: Auditory Memory for 1–4 One-syllable Words (12 levels)



Increasing Challenge As the activity progresses, student will sequence 1-4 items in order. The activity automatically adjusts the number of stimuli depending on student's performance.



Low & High Background Noise

Background noise is introduced systematically, requiring the student to listen and focus in the presence of competing distractions. The volume of the background noise increases or decreases depending upon the student's performance.

Task 3: Auditory Memory for 1–4 Digits (12 levels)





Continuous Scorecard

Immediate feedback is provided after each response. Student is praised for each correct answer. If student responds incorrectly, he or she is shown the correct response.

Task 4: Auditory Memory for 1–4 Phonemes (8 levels)





Earobics Software Guide

C.C. COAL CAR

C.C. Coal Car teaches the student to identify sounds and their positions within words.

Primary Skills

Phoneme Discrimination, Phoneme Identification, Phonological Sequencing, Sound-Symbol Correspondence

Tasks

Task 1: Recognizing long vowel phonemes – isolation and initial position (10 levels)

Task 2: Recognizing short vowel phonemes – isolation and initial position (10 levels)

Task 3: Recognizing phonemes for letters sh, s, z, f, v, ch,

j, h – isolation and initial position (16 levels)

Task 4: Recognizing phonemes for letters y, w, r, l –

isolation and initial position (8 levels)

Task 5: Recognizing phonemes for letters p, t, k, b, d, g – isolation and initial position (12 levels)

Task 6: Recognizing phonemes for letters m and n – isolation and initial position (4 levels)

Task 7: Recognizing vowel and consonant phonemes – final position (6 levels)

Task 8: Recognizing vowel and consonant phonemes – medial position (6 levels)

Task 9: Identifying position of consonant phonemes in words (20 levels)

Learning Variables

Recognizing vowels and consonants, listening for sounds within words, and recognizing positions of sounds within words are learning variables applied across the 92 levels of instruction in C.C. Coal Car. An explanation of each follows.

Recognizing Vowels and Consonants

C.C. Coal Car provides systematic training in recognition of long and short vowels and consonant sounds. This training teaches students to recognize speech sounds (e.g., phonemes) so they learn to match letters to sounds correctly.

C.C. Coal Car's training uses a step-by-step progression, beginning with sounds that are easiest to hear and moving to less salient sounds as the student's skills progress.

Listening for Sounds Within Words

Once the student correctly identifies sounds presented in isolation, C.C. Coal Car presents sounds embedded in the initial, then final, then medial positions of words. The student must listen for a target sound and then identify whether that sound is present in a given word.

Recognizing Positions of Sounds Within Words

Once students can recognize sounds within words, C.C.

Related Skills

Auditory Attention, Auditory Short-term Memory, Phonological Segmentation, Following Oral Directions, Comprehension of Linguistic Concepts

Coal Car asks them to identify the position of sounds within words. Students must identify whether they hear the target sound at the beginning, middle, or end of a word.

How To Play

Load up the coal cars by identifying sounds and position of sounds within words. If looping is enabled for a student or a group of students, C.C. Coal Car will start automatically after five seconds once students log in. If looping is disabled, click on the **C.C Coal Car** icon on the Progress Chart to begin.

Tasks 1-6: C.C. Coal Car introduces a target sound. A box on the screen displays the letter representing the target sound. A second box displays the letter with a strike through it (\bigcirc) , which means it is not the target sound.

C.C. Coal Car presents a sound. If the sound corresponds to the letter displayed, click on the box containing the letter before the train rolls away. If the sound is not the target sound, click on the box with the \bigcirc .

For tasks 1–6, after four consecutive correct responses, C.C. Coal Car increases the level of difficulty and presents a word.

If the target sound is heard at the beginning of the word, click the box containing the letter. Click on the box with the \bigcirc if the target sound is not heard at the beginning of the word.

After two consecutive incorrect responses, the level of play decreases automatically and the target sound is presented in isolation again.

As the student becomes proficient at identifying the target sound in the initial position of a word, C.C. Coal Car continues to increase in difficulty by introducing more challenging sounds.

Task 7: C.C. Coal Car presents a target sound and then a word. If the target sound is heard at the end of the word, click the box containing the letter. Click on the box with the \bigotimes if the target sound is not heard at the end of the word.

Task 8: C.C. Coal Car presents a target sound and then a word. If the target sound is heard in the middle of the word, click the box containing the letter. Click on the box with

the \bigcirc if the target sound is not heard in the middle of the word.

Task 9: C.C. Coal Car presents a target sound. Click the engine, coal car, or caboose to indicate if the target sound is heard at the beginning, middle, or end of the word. For example, if the target sound is heard at the end of the word, click on the caboose.

Tasks 7–9: C.C. Coal Car continues at the given level until at least eight correct responses are provided. C.C. Coal Car then progresses to more challenging sounds. After six or more incorrect responses, the level of play decreases automatically.

Scoring: 🖉 correct response, 🕅 incorrect response

"Click on the letter if you hear the t sound."

Tasks 1–6: Recognizing Vowel and Consonant Phonemes in Isolation and Initial Position



Increasing Challenge Once the student is able to recognize sounds in isolation, the student learns to recognize the sound in the initial position of words.

Task 8: Recognizing Vowel and Consonant Phonemes—Medial Position



Task 7: Recognizing Vowel and Consonant Phonemes—Final Position



Progression of Sounds Sounds are ordered based upon how easy they are to hear (e.g., sounds that are easiest to hear are presented first).

Task 9: Identifying Position of Consonant Phonemes in Words



Continuous Scorecard

Immediate feedback is provided after each student response. The student is rewarded for each correct answer. If he or she responds incorrectly, the correct response is shown



RAP-A-TAP-TAP

In Rap-a-Tap-Tap, the student learns to segment words into syllables and phonemes. Once the student develops this understanding of phoneme segmentation, he or she can match sounds to letters more easily and effectively.

Primary Skills

Phonological Segmentation, Auditory Short-term Memory, Auditory Temporal Resolution

Tasks

Task 1: Counting number of non-speech sounds (6 levels)
Task 2: Counting number of phonemes (6 levels)
Task 3: Segmenting syllables in a word (2 levels)
Task 4: Segmenting phonemes in a word (2 levels)

Learning Variables

Changing stimuli, decreasing intervals between sounds, and auditory cues are learning variables applied throughout the four tasks in Rap-a-Tap-Tap. An explanation of each follows.

Changing Stimuli

Rap-a-Tap-Tap systematically teaches the student to break words into their individual sounds across 16 levels of instruction. The student begins by hearing and counting a series of drumbeats and speech sounds. He or she clicks the mouse once for each drumbeat or speech sound he or she hears. When the student is able to count speech sounds, Rap-a-Tap-Tap begins training him or her to segment words into syllables and phonemes.

Decreasing Intervals Between Sounds

As the student attains success with counting beats and sounds, Rap-a-Tap-Tap reduces the amount of time between sounds, requiring the student to process the sounds more quickly. Rap-a-Tap-Tap provides practice at time intervals ranging from 1.0 to .25 second.

Auditory Cues

In addition to changing the type of sounds presented, Rap-a-Tap-Tap manipulates the availability of auditory cues. Initially, the student hears auditory cues that aid in his or her response (e.g., the student hears the sounds produced in response to his or her click of the mouse). This auditory feedback helps the student remember and count the sounds and syllables. As he or she progresses, these auditory cues are removed, requiring him or her to remember and count sounds and segment the words independently.

How to Play

Count the number of drumbeats and speech sounds in a series and the number of syllables and sounds in a word. If looping is enabled for a student or a group of students, Rapa-Tap-Tap will start automatically after five seconds once

Related Skills

Auditory Attention, Following Oral Directions

students log in. If looping is disabled, click on the **Rap-a-Tap-Tap** icon on the Progress Chart to begin.

The drummer presents a series of one to four drumbeats. After the drummer completes his play, the **Speaker** icon appears on screen and the timer begins counting. Position the cursor anywhere on the screen (except on the **Speaker** icon or the e icon) and click the mouse once for each drumbeat heard.

Rap-a-Tap Tap continues at the given level until at least eight correct responses out of ten are provided. Rap-a-Tap-Tap then advances the level of difficulty by changing the amount of time between drumbeats and by eliminating auditory feedback during the student's response. After six or more incorrect responses, the level of play decreases automatically.

After the student becomes proficient at counting drumbeats, Rap-a-Tap-Tap advances the level of difficulty by presenting speech sounds.

Click the mouse once for each speech sound heard. Rap-a-Tap-Tap will continue to advance by decreasing the amount of time between each speech sound and by eliminating auditory feedback.

Rap-a-Tap-Tap will then advance automatically by asking the student to count each syllable or speech sound in a word, with and without auditory feedback. Click the mouse once for each syllable or sound heard in the word.

Scoring: 🗾 correct response, 📃 incorrect response

"Click on the mouse once for each sound you hear."

Task 1: Counting Number of Non-speech Sounds.



Task 3: Segmenting Syllables in a Word



Auditory Feedback The student initially hears the sounds produced as he or she clicks on the mouse. As the activity progresses, auditory feedback is removed, and the student counts sounds or syllables independently.

Task 2: Counting Number of Phonemes



Time Intervals Rap-a-Tap-Tap improves the student's ability to process sounds by providing practice at time intervals ranging from 1.0 second to .25 second.

Task 4: Segmenting Phonemes in a Word





CATERPILLAR CONNECTION

Caterpillar Connection teaches important blending and auditory memory skills that give the student the ability to blend and recognize words when reading.

Primary Skills

Phonological Blending, Auditory Attention, Auditory Shortterm Memory, Auditory Sequential Memory

Tasks

Task 1: Blending words into a compound word (12 levels)
Task 2: Blending two syllables into a word (12 levels)
Task 3: Blending two phonemes into a word (4 levels)
Task 4: Blending three syllables into a word (4 levels)
Task 5: Blending three phonemes into a word (12 levels)
Task 6: Blending four phonemes into a word (12 levels)

Learning Variables

Blending, discriminating sounds within words, and increasing auditory memory are learning variables applied throughout the six tasks in Caterpillar Connection. An explanation of each follows.

Blending

With Caterpillar Connection's 56 levels of instruction, the student learns to blend words into a compound word, blend syllables into a word, and blend individual phonemes into a word. The progression of this training follows a developmentally appropriate hierarchy because students typically realize that spoken language is made up of individual words before they learn that spoken words are made up of syllables or phonemes.

Discriminating Sounds Within Words

Caterpillar Connection also teaches the student to hear subtle differences within words. Initially, the student chooses a response from three words that do not sound alike. As the student's skills progress, Caterpillar Connection presents more acoustically similar response choices. This encourages the student to listen to every sound in the word and to make finer discriminations between words.

Increasing Auditory Memory

While the student is developing blending skills, Caterpillar Connection also helps him or her build auditory memory skills. Decoding words requires at least a two-second auditory memory span, the amount of time needed to recognize a symbol, recall the sound, and hold and process the sound in auditory memory. Caterpillar Connection provides extensive practice with listening to sounds and holding them in auditory memory for increasing amounts of time before blending the sounds into words. Caterpillar Connection monitors

Related Skills

Auditory and Phoneme Discrimination, Following Oral Directions

the student's progress, gradually increasing the time he or she must hold a stimulus in auditory memory until the two-second goal is attained.

How to Play

Transform Katy-Pillar into a beautiful butterfly by blending words into a compound word, blending syllables into a word, and blending sounds into a word. If looping is enabled for a student or a group of students, Caterpillar Connection will start automatically after five seconds once students log in. If looping is disabled, click on the **Caterpillar** icon on the Progress Chart to begin.

Three pictures appear at the top of the screen. Katy-Pillar presents two words that make a compound word. Click on the picture that corresponds to the compound word.

After three consecutive correct responses, Caterpillar Connection automatically advances the level of difficulty by increasing the time between words and by introducing more similar-sounding response choices.

When the student becomes proficient in blending words into a compound word, Caterpillar Connection automatically advances the level by presenting syllables and sounds to blend into words. Click on the picture that corresponds to the blended word.

Caterpillar Connection continues to increase in difficulty by increasing the number of syllables or sounds presented, using longer presentation intervals, and varying the similarity of the response choices.

After two consecutive incorrect responses, the level of play decreases automatically.

Scoring: 🖉 correct response, 🧹 incorrect response

"Hi! I'm Katy-Pillar! Can you guess which word I'm saying?"



Task 2: Blending Two Syllables into a Word





Task 3: Blending Two Phonemes into a Word



Time Intervals Katy-Pillar builds auditory memory by pausing between words, syllables and phonemes, first for .25 sec-

ond, then .5 second, 1.0

second and 2.0 seconds.

Task 5: Blending Three Phonemes into a Word





More Challenging Foils

Response choices sound more alike as the activity progresses, challenging the student to make finer discriminations between words.

Task 4: Blending Three Syllables into a Word



Task 6: Blending Four Phonemes into a Word



RHYME TIME

Rhyme Time addresses the student's ability to recognize rhyming and non-rhyming words. The ability to identify sound patterns at the end of words is critical for the development of phonological awareness and, ultimately, for successful reading.

Primary Skills

Rhyming, Auditory Attention, Auditory Short-term Memory, Auditory Sequential Memory, Auditory Performance with Competing Signals

Tasks

Task 1: Identifying rhyming words (6 levels) **Task 2:** Identifying non-rhyming words (5 levels)

Learning Variables

Auditory memory and attention are learning variables applied throughout the two tasks in Rhyme Time. An explanation of each follows.

Auditory Memory

Rhyme Time's 11 levels of instruction provide extensive practice in rhyming, auditory short-term and sequential memory, and auditory performance with competing signals. Initially, the student identifies a word from a set of two words that rhymes with a target word. As the student progresses, the number of response choices increases gradually to five words. The student must remember more words for longer periods of time, developing auditory memory skills. After the student learns to select rhyming words, he or she learns to identify non-rhyming words from a set of words that gradually increases from three to five words.

Attention

As the student's rhyming skills improve, Rhyme Time begins teaching him or her to listen in the presence of competing background noise. The student learns to screen out distracting background noise and focus attention on processing speech sounds. Rhyme Time introduces low- and high-level swamp noise. The student's responses are monitored continually, and the volume of the swamp noise increases or decreases, depending on the individual student's progress.

How To Play

Visit Bog Frog and friends for a unique activity that addresses rhyming skills, using both rhyming and nonrhyming activities. If looping is enabled for a student or a group of students, Rhyme Time will start automatically after five seconds once students log in. If looping is disabled, click on the **Frog** icon on the Progress Chart to begin.

Related Skills

Auditory and Phoneme Discrimination, Following Oral Directions, Comprehension of Linguistic Concepts

Task 1:Bog Frog says a word. Two other frogs each speak a different word, one of which rhymes with the word spoken by Bog Frog. Click on the frog whose word rhymes with the one spoken by Bog Frog.

Rhyme Time continues at the given level until at least eight correct responses are provided. Rhyme Time then advances the level of difficulty. After six or more incorrect responses, the level of play decreases automatically.

Task 2: After the student successfully identifies rhyming words at six levels of difficulty, Rhyme Time automatically begins a non-rhyming activity.

Three little frogs leap in turn, each speaking a different word. One of the words does not rhyme with the others. Click on the frog whose word does not rhyme with the others before the frog jumps into the water.

Rhyme Time continues at the given level until at least eight correct responses out of ten are provided. Rhyme Time then advances the level of difficulty by increasing the number of frogs and by introducing two levels of background swamp noise. After six or more incorrect responses, the level of play decreases automatically.

Scoring: 🕮 correct response, 🚺 incorrect response

"It's time to rhyme."

Task 1: Identifying Rhyming Words



Increasing Challenge

As activity progresses, student selects rhyming or non-rhyming word from a gradually increasing number of stimuli.



Task 2: Identifying Non-rhyming Words



Background Noise

Background noise is introduced systematically, requiring student to listen and focus in the presence of competing distractions. Volume of the background noise increases or decreases, depending upon the individual student's performance.





BASKET FULL OF EGGS

Basket Full of Eggs requires the student to discriminate accurately between sounds, thereby developing strong foundations for reading and spelling.

Primary Skills

Auditory and Phoneme Discrimination, Auditory Attention, Auditory Short-term Memory, Auditory Sequential Memory, Auditory Pattern Recognition, Auditory Temporal Ordering

Tasks

Note: Tasks 5-7 are disabled by default but can be enabled using Activity Preferences.

- Task 1: Discriminating four-step vowel pairs (3 levels)
- Task 2: Discriminating three-step vowel pairs (8 levels)
- Task 3: Discriminating two-step vowel pairs (9 levels)
- Task 4: Discriminating one-step vowel pairs (10 levels)
- **Task 5:** Discriminating *ra-la* (28 levels)
- Task 6: Discriminating da-ga (28 levels)
- Task 7: Discriminating ma-na (28 levels)

Learning Variables

Distinguishing between vowels and consonants and decreasing acoustic cues are learning variables applied throughout the seven tasks in Basket Full of Eggs. An explanation of each follows.

Distinguishing Between Vowels and Consonants

Basket Full of Eggs' comprehensive training of vowel and consonant discrimination skills is controlled across 114 levels of instruction. The activity presents a pair of vowel sounds. Each sound in the vowel pair is distinguished easily from the other. The student must determine if the two vowels are the same or different. As the student's discrimination skills improve, Basket Full of Eggs presents vowel sounds that are more acoustically and perceptually similar. When the student demonstrates mastery of vowel discrimination, Basket Full of Eggs begins to present consonant-vowel pairs. After the student learns to discriminate consonant-vowel pairs, the program progresses to recognizing and discriminating sound-syllable patterns.

Decreasing Acoustic Cues

Basket Full of Eggs uses computer-generated, acoustically modified speech to make acoustic cues more easily heard. Once the student can discriminate enhanced consonantvowel syllables successfully, the acoustic modification gradually decreases.

Related Skills

Following Oral Directions, Comprehension of Linguistic Concepts

How to Play

Help Farmer Fardell collect eggs by hearing the differences between vowels and consonant-vowel combinations. If looping is enabled for a student or a group of students, Basket Full of Eggs will start automatically after five seconds once students log in. If looping is disabled, click on the **Farmer** icon on the Progress Chart to begin.

Tasks 1-4: There are two white hens in a nest on the left side of the screen and a white and a brown hen in a nest on the right. Farmer Fardell presents two vowel sounds. If the two sounds are the same, click on the two white hens before the egg falls to the ground. If the two sounds are different, click on the white and brown hens.

Basket Full of Eggs continues at the given level until the student responds correctly on all same-vowel pairs and at least five of six different-vowel pairs. Basket Full of Eggs then advances the level of difficulty by increasing the similarity of the vowel sounds.

Tasks 5-7: Farmer Fardell presents two consonant-vowel syllables that have been acoustically enhanced. We recommend using headphones.

If the consonant-vowel syllables are the same, click on the two white hens. If the sounds are different, click on the white and brown hens.

After four consecutive correct responses, Basket Full of Eggs automatically advances the level of difficulty by reducing the acoustic enhancement of the sounds, thereby increasing the similarity of the consonant-vowel syllables, and by increasing the number of syllables presented at a time.

When the student becomes proficient at discriminating one pair of consonant-vowel syllables, the activity automatically advances to more challenging pairs of consonant-vowel syllables. Basket Full of Eggs automatically decreases a level after two consecutive incorrect responses.

Scoring: 💹 correct response, 🔘 incorrect response

"Click on the two white hens when you hear two sounds that are the same. Click on the white and brown hens when you hear two different sounds."

Task 1: Discriminating 4+-Step Vowel Pairs



Task 3: Discriminating 2-Step Vowel Pairs



Tasks 5–7: Discriminating Consonant-Vowel Pairs and Sound-Syllable Patterns



Acoustically Modified Speech Computer-generated speech makes critical acoustic cues more easily heard.

Screen Key The student clicks to pause The student clicks to adjust volume Egg represents correct response

Task 2: Discriminating 3-Step Vowel Pairs



Increasing Challenge As activity progresses, the student hears vowel pairs that are more acoustically and perceptually similar.

Task 4: Discriminating 1-Step Vowel Pairs





EAROBICS STEP 1 LEARNING OBJECTIVES

The following learning objectives appear on the Reporting screen. They are written in standard Individualized Education Plan (IEP) format to help educators keep records and create reports. When writing IEP goals, use these learning objectives as a framework and customize them for each student. Objectives for each activity are listed in the order presented during play.

Karloon's Balloons

Task 1: Using auditory memory for environmental sounds (6 levels)

Objective: The student will recall in order one, two or three sound effects presented one second apart. Display of nine response choices will be simultaneous or delayed.

Task 2: Using auditory memory for one-syllable words (12 levels)

Objective: The student will recall in order one, two, three or four one-syllable words presented one second apart. Display of nine response choices will be simultaneous or delayed with no, low or high background noise.

Task 3: Using auditory memory for digits (12 levels)

Objective: The student will recall in order one, two, three or four digits presented one second apart. Display of nine response choices will be simultaneous or delayed with no, low or high background noise.

Task 4: Using auditory memory for phonemes (8 levels)

Objective: The student will recall in order one, two, three or four phonemes presented one second apart. Display of nine response choices will be simultaneous or delayed with no, low or high background noise.

C.C. Coal Car

Task 1: Recognizing long vowel phonemes – isolation/initial position (10 levels)

Objective: The student will recognize long vowel phonemes presented auditorily in isolation or in initial position of a word.

Task 2: Recognizing short vowel phonemes – isolation/initial position (10 levels)

Objective: The student will recognize short vowel phonemes presented auditorily in isolation or in initial position of a word.

Task 3: Recognizing phonemes for letters *sh*, *s*, *z*, *f*, *v*, *ch*, *j*, *h* – isolation and initial position (16 levels)

Objective: The student will recognize the phonemes for letters *sh*, *s*, *z*, *f*, *v*, *ch*, *j*, *h* [fricative and affricate consonant phonemes] presented auditorily in isolation or in initial position of a word.

Task 4: Recognizing phonemes for letters *y*, *w*, *r*, *I* – isolation/initial position (8 levels)

Objective: The student will recognize phonemes for letters y, w, r, l [glide and liquid consonant phonemes] presented auditorily in isolation or in initial position of a word.

Task 5: Recognizing phonemes for letters p, t, k, b, d, g – isolation/initial position (12 levels)

Objective: The student will recognize phonemes for letters *p*, *t*, *k*, *b*, *d*, *g* [stop consonant phonemes] presented auditorily in isolation or in initial position of a word.

Task 6: Recognizing phonemes for letters m and n – isolation/initial position (4 levels)

Objective: The student will recognize phonemes for letters m, n [nasal consonant phonemes] presented auditorily in isolation or in initial position of a word.

Task 7: Recognizing vowel and consonant phonemes – final position (6 levels)

Objective: The student will recognize vowel and consonant phonemes presented auditorily in the final position of a word.

Task 8:Recognizing vowel and consonant phonemes –
medial position (6 levels)

Objective: The student will recognize vowel and consonant phonemes presented auditorily in the medial position of a word.

Task 9:Identifying position of consonant
phonemes in words (20 levels)

Objective: The student will identify the position of a consonant phoneme in a word presented auditorily.

Rap-a-Tap-Tap

Task 1: Counting number of non-speech sounds (6 levels)

Objective: The student will identify the number (one, two, three or four) of non-speech sounds presented auditorily. The non-speech sounds will be separated by 1.0, 0.5 or 0.25 seconds. Simultaneous auditory feedback will or will not be provided during response.

Task 2: Counting number of phonemes (6 levels)

Objective: The student will identify the number (one, two, three or four) of phonemes presented auditorily. The phonemes will be separated by a 1.0, 0.5 or 0.25 seconds. Simultaneous auditory feedback will or will not be provided during response.

Task 3: Segmenting syllables in a word (2 levels)

Objective: The student will identify the number of syllables (one, two, three or four) in a word presented auditorily. Simultaneous auditory feedback will or will not be provided during response.

Task 4: Segmenting phonemes in a word (2 levels)

Objective: The student will identify the number of phonemes (two, three or four) in a word presented auditorily. Simultaneous auditory feedback will or will not be provided during response.

Caterpillar Connection

Task 1: Blending words into a compound word (12 levels)

Objective: The student will blend two words presented auditorily 0.25, 0.5, 1.0 or 2.0 seconds apart into a compound word and will select from a set of three response choices. The choices will contain zero, one or two foils (words that are perceptually similar to the target word).

Task 2: Blending two syllables into a word (12 levels)

Objective: The student will blend two syllables presented auditorily 0.25, 0.5, 1.0 or 2.0 seconds apart into a word and will select from a set of three response choices. The choices will contain zero, one or two foils (words that are perceptually similar to the target word).

Caterpillar Connection (cont.)

Task 3: Blending two phonemes into a word (4 levels)

Objective: The student will blend two phonemes presented auditorily 0.25, 0.5, 1.0 or 2.0 seconds apart into a word and will select from a set of three response choices. The choices will contain zero, one or two foils (words that are perceptually similar to the target word).

Task 4: Blending three syllables into a word (4 levels)

Objective: The student will blend three syllables presented auditorily 0.25, 0.5, 1.0 or 2.0 seconds apart into a word and will select from a set of three response choices. The choices will contain zero, one or two foils (words that are perceptually similar to the target word).

Task 5: Blending three phonemes into a word (12 levels)

Objective: The student will blend three phonemes presented auditorily 0.25, 0.5, 1.0 or 2.0 seconds apart into a word and will select from a set of three response choices. The choices will contain zero, one or two foils (words that are perceptually similar to the target word).

Task 6: Blending four phonemes into a word (12 levels)

Objective: The student will blend four phonemes presented auditorily 0.25, 0.5, 1.0 or 2.0 seconds apart into a word and will select from a set of three response choices. The choices will contain zero, one or two foils (words that are perceptually similar to the target word).

Rhyme Time

Task 1:Identifying rhyming words (6 levels)Objective: The student will identify the rhyming word in
a set of two, three, four or five words presented auditorily
with no, low or high background noise.

Basket Full of Eggs

Note: Tasks 5-7 are disabled by default.

Task 1: Discriminating 4+-step vowel pairs (3 levels) Objective: The student will identify a pair of vowel sounds as same or different when the vowels are presented with 0.5 seconds between each vowel. A vowel pair will contain the same two vowels or two vowels that are separated by four or more acoustic steps on the acoustic vowel continuum. (*Same* score reflects student's accuracy of response when the vowels are the same; *Different* score reflects student's accuracy of response when the vowels are different.)

Task 2: Identifying non-rhyming words (5 levels)

Objective: The student will identify the non-rhyming word from a set of three, four or five words presented auditorily with no, low or high background noise.

Task 2: Discriminating three-step vowel pairs (8 levels)

Objective: The student will identify a pair of vowel sounds as same or different when the vowels are presented with a time interval of 0.5 seconds between each vowel. A vowel pair will contain the same two vowels or two vowels that are separated by three acoustic steps on the acoustic vowel continuum. (*Same* score reflects student's accuracy of response when the vowels are the same; *Different* score reflects student's accuracy of response when the vowels are different.)

Task 3: Discriminating two-step vowel pairs (9 levels)

Objective: The student will identify a pair of vowel sounds as same or different when the vowels are presented with a time interval of 0.5 seconds between each vowel. A vowel pair will contain the same two vowels or two vowels that are separated by two acoustic steps on the acoustic vowel continuum. (*Same* score reflects student's accuracy of response when the vowels are the same; *Different* score reflects student's accuracy of response when the vowels are different.)

Task 4: Discriminating one-step vowel pairs (10 levels)

Objective: The student will identify a pair of vowel sounds as same or different when the vowels are presented with a time interval of 0.5 seconds between each vowel. A vowel pair will contain the same two vowels or two vowels that are separated by one acoustic step on the acoustic vowel continuum. (*Same* score reflects student's accuracy of response when the vowels are the same; *Different* score reflects student's accuracy of response when the vowels are different.)

Task 5: Discriminating ra-la (28 levels)

Objective: The student will identify a pair of one-, two-, three-, or four-syllable sequences as same or different when presented 1.0 second apart. In this task, the CV syllables consist of *rah-lah* syllables. The interphonemic acoustic difference in onset formant frequency and the perceptual saliency of the difference between the consonant phonemes is gradually reduced from eight steps to two steps. (*Same* score reflects student's accuracy of response when the syllables and syllable sequences are the same; *Different* score reflects student's accuracy of response when the syllables and syllable sequences are different.)

Task 6: Discriminating da-ga (28 levels)

Objective: The student will identify a pair of one-, two-, three-, or four-syllable sequences as same or different when presented 1.0 second apart. In this task, the CV syllables consist of *dah-gah* syllables. The interphonemic acoustic difference in onset formant frequency and the perceptual saliency of the difference between the consonant phonemes is gradually reduced from eight steps to two steps. (*Same* score reflects student's accuracy of response when the syllables and syllable sequences are the same; *Different* score reflects student's accuracy of response when the syllables and syllable sequences are different.)

Task 7: Discriminating ma-na (28 levels)

Objective: The student will identify a pair of one-, two-, three-, or four-syllable sequences as same or different when presented 1.0 second apart. In this task, the CV syllables consist of *mah-nah* syllables. The interphonemic acoustic difference in onset formant frequency and the perceptual saliency of the difference between the consonant phonemes is gradually reduced from eight steps to two steps. (*Same* score reflects student's accuracy of response when the syllables and syllable sequences are the same; *Different* score reflects student's accuracy of response when the syllables and syllable sequences are different.)

USING THE PROGRESS CHART

The Progress Chart provides ongoing motivation for each student. It also allows the student to switch between games and monitor progress. The student returns here each time he or she exits a game.

Circles are colored in on the Progress Chart as a student successfully completes all levels within a specific task. Over time, the chart becomes a colorful reward for each student's hard work. Teachers can print this chart and include it in student portfolios or send it home for parents to hang on bulletin boards and refrigerators. Sending the Progress Chart home is also a great way to encourage communication between students and parents about school activities.

While the Progress Chart is primarily used for students to gauge their own success, it also gives teachers a quick overview of how each student is progressing through instruction. See the Progress Chart detail for an explanation of the correspondence between circles and the number of levels they represent.

The Progress Chart appears as one screen. Each activity is represented on the chart by its corresponding character. The circles above each character provide details about student progress in each individual activity.

In the Progress Chart details, each circle contains a number. This number represents the number of levels the student must complete before earning a colored circle. The number of levels required to master each task varies. As a result, the Progress Chart provides intermittent reinforcement. Because the student does not receive constant rewards, he or she is motivated to try harder and play longer.

Tasks are grouped within three broad categories: beginning, intermediate, and advanced. These categories are identified in the Progress Chart details that follow. They serve as a quick reference for a student's level of progress within the program.

If a student completes all levels of an activity (e.g., earns all circles), the software will continue to present items at the highest level of that activity. Completed activities can be disabled using Student or Group Activity Preferences.

Note: While continuing a task at its highest level, if a student provides incorrect responses, it is possible to lose a bubble as the student regresses to a lower level.

Motivating Students

Students will enjoy completing their Progress Charts almost as much as they enjoy playing the activities. When a circle fills in, students hear various motivating sound effects. Students might hear a slide whistle, a bell, or the smack of a kiss. When all circles in the activity are filled in, a special musical reinforcement unique to that activity plays. When students complete all activities, another unique musical reward plays.

Selecting a New Activity

If looping is disabled, a new activity is selected by clicking on the appropriate activity icon located on the Progress Chart screen. If looping is enabled, the next activity will launch automatically after a short pause.

Exiting an Activity

An activity is exited either by selecting No when prompted to play another round, or by selecting the \boldsymbol{e} icon at any time during a round of play. In either case, the student is returned to the Progress Chart screen. When a student exits a game in the middle of a round (other than as a result of two consecutive non-responses), the data for the entire round is stored.



Progress Chart Detail: Karloon's Balloons

4 Tasks / 38 Levels

Task 3, 3 levels 3	Task 3, 3 levels 3	Task 4, 4 levels 4	Task 4, 4 levels 4	
Auditory memory for one to three digits, delayed visual display, no background noise	Auditory memory for four digits, delayed visual display; no, low, or high background noise	Auditory memory for one to four phonemes, simultaneous visual display	Auditory memory for one to four phonemes, delayed visual display	
Task 2, 4 levels 4	Task 2, 2 levels 2	Task 3, 3 levels 3	Task 3, 3 levels 3	
Auditory memory for one to four one-syllable words, delayed visual display, no background noise	Auditory memory for four one-syllable words, delayed visual display, low or high background noise	Auditory memory for one to three digits, simul- taneous visual display, no background noise	Auditory memory for four digits, simultaneous visual display; no, low, or high background noise	
Task 1, 3 levels	Task 1, 3 levels	Task 2, 4 levels 4	Task 2, 2 levels 2	
Auditory memory for one to three environmental sounds, simultaneous visual display	Auditory memory for one to three environmental sounds, delayed visual display	Auditory memory for one to four one-syllable words, simultaneous visual display, no background noise	Auditory memory for four one-syllable words, simul- taneous visual display, low or high background noise	

Start here



Progress Chart Detail: C.C. Coal Car

9 Tasks / 92 Levels



Progress Chart Detail: Rap-a-Tap-Tap 4 Tasks / 16 Levels

Task 3, 1 level	Task 3, 1 level	Task 4, 1 level	Task 4, 1 level	
Segmenting syllables in one to four-syllable word, auditory feedback	Segmenting syllables in one to four-syllable word, no auditory feedback	Segmenting phonemes in one to four-phoneme word, auditory feedback	Segmenting phonemes in one to four-phoneme word, no auditory feedback	
Task 2, 1 level	Task 2, 1 level	Task 2, 1 level	Task 2, 1 level	
Counting one to four phonemes at 0.25 second interval, auditory feedback	Counting one to four phonemes at 1.0 second interval, no auditory feedback	Counting one to four phonemes at 0.5 second interval, no auditory feedback	Counting one to four phonemes at 0.25 second interval, no auditory feedback	
Task 1, 1 level	Task 1, 1 level	Task 2, 1 level	Task 2, 1 level	
Counting one to four drumbeats at 0.5 second interval, no auditory feedback	Counting one to four drumbeats at 0.25 second interval, no auditory feedback	Counting one to four phonemes at 1.0 second interval, auditory feedback	Counting one to four phonemes at 0.5 second interval, auditory feedback	
Task 1, 1 level	Task 1, 1 level	Task 1, 1 level	Task 1, 1 level	
Counting one to four drumbeats at 1.0 second interval, auditory feedback	Counting one to four drumbeats at 0.5 second interval, auditory feedback	Counting one to four drumbeats at 0.25 second interval, auditory feedback	Counting one to four drumbeats at 1.0 second interval, no auditory feedback	

Start here

Progress Chart Detail: Caterpillar Connection 6 Tasks / 56 Levels

	Task 6, 4 levels 4	Task 6, 4 levels4Task 6, 4 levels4			
	Blending four phonemes with an interval of 0.25, 0.5, 1.0, or 2.0 seconds into a word, one foil	Blending four phonemes with an interval of 0.25, 0.5, 1.0, or 2.0 seconds into a word, two foils			
Task 5, 4 levels 4	Task 5, 4 levels 4	Task 5, 4 levels 4	Task 6, 4 levels 4		
Blending three phonemes with an interval of 0.25, 0.5, 1.0, or 2.0 seconds into a word, no foils	Blending three phonemes with an interval of 0.25, 0.5, 1.0, or 2.0 seconds into a word, one foil	Blending three phonemes with an interval of 0.25, 0.5, 1.0, or 2.0 seconds into a word, two foils	Blending four phonemes with an interval of 0.25, 0.5, 1.0, or 2.0 seconds into a word, no foils		
Task 2, 4 levels 4	Task 2, 4 levels 4	Task 3, 4 levels 4	Task 4, 4 levels 4		
Blending two syllables with an interval of 0.25, 0.5, 1.0, or 2.0 seconds into a word, one foil	Blending two syllables with an interval of 0.25, 0.5, 1.0, or 2.0 seconds into a word, two foils	Blending two phonemes with an interval of 0.25, 0.5, 1.0, or 2.0 seconds into a word, no foils	Blending three syllables with an interval of 0.25, 0.5, 1.0, or 2.0 seconds into a word, no foils		
Task 1, 4 levels	Task 1, 4 levels 4	Task 1, 4 levels 4	Task 2, 4 levels 4		
Blending two words with an interval of 0.25, 0.5, 1.0, or 2.0 seconds into a compound word, no foils	nding two words with interval of 0.25, 0.5, , or 2.0 seconds into a npound word, no foils Blending two words with an interval of 0.25, 0.5, 1.0, or 2.0 seconds into a compound word, one foil		Blending two syllables with an interval of 0.25, 0.5, 1.0, or 2.0 seconds into a word, no foils		





Progress Chart Detail: Rhyme Time 2 Tasks / 11 Levels

Task 2, 1	level 1	Task 2, 1	level 1	Task 2, 1	level 1	
Identifying no word in fie	Identifying non-rhyming word in field of five		Identifying non-rhyming word in field of five, low level background noise		Identifying non-rhyming word in field of five, high level background noise	
Task 1, 1 level Task 1, 1 level Task 2, 1 level Task 2, 1 level						
Identifying rhyming word in field of five, low level background noise	Identifying r in field of fi backgrou	hyming word ve, high level 1nd noise	Identifying r word in fie	non-rhyming field of three word in f		oon-rhyming eld of four
Task 1, 1 level 1 Task 1, 1 level 1 Task 1, 1 level 1						
Identifying rhyming word in field of two	Identifying r in field	hyming word of three	Identifying rl in field	hyming word of four	Identifying rl in field	nyming word of five

Start here



Progress Chart Detail: Basket Full of Eggs

7 Tasks / 114 Levels



Foundations Student Activities