UNITY®
128 Version
Tour Guide

(with *Unity* 32 for Pathfinder Addendum)

The first Minspeak® Application Program
within the *Unity*®series

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CE

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August, 1995
Revised June, 1997
Revised February, 1998
Revised March 3, 2000
Unity 32 Addendum May, 2001

Unity 128 Version Tour Guide with *Unity* 32 Addendum
© 1995, 1997 (previously titled *Unity/128* Tour Guide)
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Acknowledgments

We would like to personally acknowledge and thank all the people who have assisted and shared their expertise in making Unity a reality for those with communicative disabilities. These people include in alphabetical order:

All the beta testers including the students, families, and support staff from Australia, the United Kingdom, and the United States of America; Snoopi Botten; Sarah Burger; Charlene Hartzler; Dave Hershberger; Cliff Kushler; Regional Consultants from Liberator, Ltd.; Regional Consultants from Prentke Romich Company; Deb Tate; Linda Valot; Gail Van Tatenhove; Cherie Weaver; Connie Winkler; Diane Zimmerly; and many others unnamed.

We also would like to acknowledge that this project has been funded in part by the United States Department of Education through a Small Business Innovative Research grant.

The Unity 32 Version for Pathfinder was developed by Janet S. Lehr, with support from Russell T. Cross and Mark Zucco. Feedback and suggestions from the Prentke Romich Consultant Network was of significant help in bringing the project to a conclusion.

From the authors . . .

Welcome to *Unity* 128 Version with the *Unity* 32 for Pathfinder.

This Tour Guide was designed for professionals, parents, and other facilitators who may be teaching *Unity* 128 Version to a child or adult, and written to provide you an introduction to *Unity* 128 Version, its icons, architecture, and vocabulary contents.

The Tour Guide:

- begins with an overview of *Unity* 128 Version's **history**, **purpose** and **components**;
- follows with **activities** that provide practice with the vocabulary of *Unity* 128 Version; and
- concludes with instructional guidelines to assist you in **teaching** *Unity* 128 Version to others.
- includes a special addendum for Pathfinder owners using the 32-location version of Unity.

Before you start:

- load the vocabulary for Icon Overlay 3/4 into your device referring to the instruction in Appendix D (DeltaTalker), Appendix E (Liberator), or Appendix J (Pathfinder);
- place either Icon Overlay 3 or 4 on your device if you have DeltaTalker or Liberator, or the Sequenced-Hit overlay for Pathfinder; and
- get the Vocabulary sort.

We hope this introductory Tour Guide helps you become familiar with *Unity* as a concept or approach and determine where to begin when introducing *Unity* 128 Version to others. Designing *Unity* 128 Version was an enormously fun project for us and we hope you find it fun and motivating to teach. The task of teaching a vocabulary program within an augmentative communication device is a challenging one and we believe *Unity* will provide your client with the foundation to become an effective and independent communicator.

All the best in your endeavor!

Sincerely,

The *Unity* Team
Arlene Luberoff Badman
Bruce R. Baker
Meher Banajee
Russell Cross
Janet S. Lehr
Julie Maro
Mark Zucco

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Information About *Unity* 128 Version

Information About *Unity* 128 Version

Introduction

A team of authors developed the architecture and content for *Unity* 128 Version. The members of the team represent a range of skills and professional backgrounds.

Arlene Luberoff Badman, MA, CCC-SLP is a speech-language pathologist working as the AAC Product Manager for the Prentke Romich Company. Ms. Badman has extensive therapeutic experience with children with multi-handicaps as it relates to the development and motor planning of respiration, speech, and feeding, as well as AC (augmentative communication). She has been invited to make presentations at various professional conferences, both nationally and internationally, on topics pertaining to building vocabulary in children relying on AC, developing automaticity in AC, and designing computer labs for children with Down Syndrome.

Bruce R. Baker, *AM*, is a consulting linguist to the Prentke Romich Company as well as president of Semantic Compaction Systems. He is the developer of the semantic compaction technique known as Minspeak and the author of the Minspeak Application Program, *Words Strategy*. Mr. Baker has published regularly in both popular and academic press on topics such as language, parsing, and artificial intelligence in AC systems. He is the Contributing Editor of *Communication Outlook* and a regular reviewer for *Rehabilitation Engineering Society of North America,* and *Augmentative and Alternative Communication.* He is a frequent speaker at seminars both in North America and Europe. Mr. Baker has been cited for his significant contributions by the American Speech-Language-Hearing Association.

Meher Banajee, MS, CCC-SLP, was a regional consultant for the Prentke Romich Company for over five years. She is now working as a speech-language pathologist in an early intervention program at the Human Development Center in New Orleans, Louisiana. Ms. Banajee is conducting assessments and establishing a program for early intervention and transitioning into school. She also has experience in evaluating and treating children with neurological impairments, closed head injury and cognitive impairments. Ms. Banajee has presented at various conferences regarding an informal assessment for *Words Strategy*, and people with head injury using AC. Ms. Banajee was raised in India and has a strong background in British English and its grammar.

Russell Cross has a BSC with honors in psychology and a diploma in speech-language pathology from the United Kingdom. Mr. Cross works as consultant manager for Liberator, Ltd. His specialty area is application of computer and linguistic technology related to the field of AC and he has authored a Minspeak Application Program, *IEP+* for the IntroTalker. Mr. Cross has been an invited presenter at various professional conferences on topics pertaining to iconicity and human computer interaction. Mr. Cross has an intimate knowledge of British English and its grammar.

Janet S. Lehr, MS, CCC-SLP, is a speech-language pathologist working as a regional consultant for the Prentke Romich Company. She has worked extensively with adults who have closed head injury, with individuals who are deaf and hearing impaired, and with children in early elementary school and adolescents who have language and learning disabilities. Ms. Lehr has experience in Teaching English as a Second Language and American Sign Language.

Julie Maro, MA, CCC-SLP was a regional consultant for Prentke Romich Company for over five years. She is now a supervisor and director of the enabling technology program at Sacred Heart Hospital in Eau Claire, Wisconsin. She has extensive therapeutic background in designing programs to evaluate and train children who use augmentative communication systems. Ms. Maro has also been an invited presenter at various professional conferences.

Mark Zucco has a diploma in Commercial Art from the Ivy School of Professional Art and an Associate Degree in Court Reporting from the Community College of Allegheny County. Mr. Zucco works as photographer and graphic artist for Semantic Compaction Systems. His main duty is icon illustration related to AC systems. Having musical talent and additional schooling in computer graphics and programming, Mr. Zucco has served on several MAP development teams for the Prentke Romich Company.

MAP History

The purpose behind the development of Minspeak in the early 1980s was to reduce the cognitive demands as well as the number of physical keystrokes required to create effective communication. The success of Minspeak is in the use of a small set of symbolic pictures, called icons, that are rich in meaning.

These icons are combined to represent a word, phrase, or sentence so that only two or three keystrokes are needed to say a word or sentence. This small set of icons permits a large vocabulary to be stored in the device. Since icons designed for Minspeak are rich in meaning, they can be combined in a large number of distinct sequences to represent vocabulary.

Although Minspeak provided immediate advantages, it was much like the "bare" computer language available in personal computers ten years ago. As with all other AC systems, teachers, therapists, and facilitators ended up designing a vocabulary and icon overlay organization "from scratch" to represent language for each individual client. The success of this approach was mixed.

Therapists with a thorough knowledge of linguistic principles and programming reported great success with their clients. However, those therapists who were not familiar with programming or who lacked time to develop a thorough architecture to represent vocabulary reported limited communication success by their clientele. To address this issue, Prentke Romich Company (PRC) and Semantic Compaction Systems (SCS) developed a number of Minspeak Application Programs (MAPs).

Each MAP had a unique set of icons, an individual icon arrangement, and a specific architecture (i.e., a pattern for coding words). Each MAP provided unique vocabulary to address specific communication needs for the population for which it was intended. This allowed teachers, therapists, and facilitators to select and implement the MAP immediately without spending hours developing a plan and programming vocabulary. They customized the MAP (e.g., added more vocabulary, added icons) to fine-tune it to the specific needs of the person using it to talk. However, having a MAP to serve as the foundation freed them to do what they are trained to do: teach and treat effectively.

Since MAPs were introduced, many individuals who are nonspeaking have used them in their communication systems. This experience has validated the effectiveness of MAPs, as well as help define their role in language acquisition and development.

Three of the first MAPs were: *Words Strategy* (*WS*), designed by Bruce Baker with cognitively intact adults in mind; *Interaction, Education and Play* (*IEP*), designed by Joan Bruno, a speech-language pathologist, with the needs of school-age children in mind; and *Power in Play* (*PIP*), designed by Gail Van Tatenhove, a speech-language pathologist, for young children with cognitive impairments. The usefulness of programmed application vocabularies and icon overlays such as these quickly became clear to professionals and consumers in the field of augmentative communication.

The early focus of MAPs development was in getting an application program "tailored" to the specific needs of a particular group within AC, and less attention was paid to the relationship between and among the various MAPs. To tailor *IEP* for school-aged children, great care went into selecting icons and vocabulary to meet the needs which the typical school-aged child encounters at home, play, and school. However, as the children matured and became proficient with their systems, their communication needs also grew. Although *WS* was specifically designed to address those with more sophisticated communicative needs, difficulties in making a transition between *IEP* and *WS* became evident. Children possessing a thorough knowledge of their MAP were not necessarily prepared to advance to a more age or cognitively appropriate MAP.

Therapists and teachers also often found themselves teaching a variety of students with different MAPs in a single setting. Since the icons, icon arrangements, architecture, and vocabulary of various MAPs are distinctly different, even the best teachers and therapists found it difficult to be thoroughly familiar with all the programs. For instance, a thorough knowledge of *IEP* gave no background concerning either the icons, architecture, or vocabulary of *WS*. The need for one unified approach became evident.

Purpose of *Unity*

To address the transitional difficulties for the person using current MAPs and to reduce the demands on facilitators who have to learn and teach multiple MAPs that are so distinctly different, a unified MAP series with a consistent set of icons, icon arrangement, and architecture was envisioned. Sections of this MAP series could be introduced to a young child with varying cognitive, motoric, perceptual, and linguistic abilities and grow with the child into adulthood. With this approach, relearning is minimized as abilities improve and new vocabulary sections are added.

This MAP series is called *Unity*. There are many practical advantages of having such a MAP series:

1) The *Unity* series will be based on a consistent set of icons, arrangement of icons, and patterns for coding vocabulary to promote automaticity for an icon sequence. This consistency will be maintained as much as possible across the 8-, 32-, and 128-location overlays.

   When a motor pattern is performed with little to no thought it is called automatic. Some common motor patterns that we do automatically include walking, reaching for a cup, or driving a car. When a motor pattern such as walking or driving becomes automatic, a person is able to do or think about other things.

   Since the *Unity* series will be based on a consistent architecture, set of icons, and icon sequences, recalling a word may become automatic. People learning vocabulary through the *Unity* series, will then be able to focus more time and energy on developing effective conversational skills. Ultimately, they will be able to use their device to communicate competently with little to no thought about the device itself.

2) The *Unity* series will minimize relearning of vocabulary and paradigms. This means that little time may be lost communicating while making transitions to new vocabulary. Time can be spent communicating and interacting instead of unlearning and relearning new icons, icon sequences, or an architecture.

3) The *Unity* series will make therapeutic intervention easier for teachers and therapists. The teachers and therapists can more easily build lessons around a common vocabulary, set of icons, and architecture even when students are using an 8-, 32-, or 128-location overlay.

The first vocabulary program of the *Unity* series that was developed is what you now own —— *Unity* 128 Version. PRC and SCS will continue to incorporate *Unity's* unified approach to language and learning into future MAP developments. For instance, the *Unity* series will include 8- and 32-location overlays and vocabularies for individuals of varying language, cognitive, motoric, and perceptual abilities. The focus will be continuity with *Unity* 128 Version to allow people to make the transition more readily and minimize relearning when advancing to *Unity* 128 Version as their abilities improve and language growth continues.

Unity 128 Version

The primary purpose of *Unity* 128 Version is to provide a core vocabulary that can be introduced to a person capable of activating a 128-location overlay which can also be expanded as communicative abilities mature. Consistency throughout the program will minimize the unlearning and relearning of paradigms and icon sequences for recalling vocabulary. For example, a child beginning to use *Unity* 128 Version will learn an icon sequence to recall the word "play" from the device and maintain that sequence into adulthood.

This consistency is accomplished in *Unity* 128 Version by having:

- a common set of icons,
- a consistent icon arrangement,
- consistent labels for the different parts of speech (i.e., called grammar labels), and
- a common architecture.

Unity 128 Version was designed using WS as its framework to provide an ample single-word vocabulary and its morphology to children and adults who may be cognitively intact or challenged at varying stages of language development. Access to a single word vocabulary is crucial to all individuals beginning to use AC so they have the opportunity to use and reuse words in a

variety of sentences and contexts. Being exposed to words and having the chance to practice them as speaking individuals do is critical to the development of strong language skills and sets the stage for being an effective independent communicator.

Although prestored sentences can be meaningful to represent current language usage, reflect a family language style or culture, or foster faster communication, access to a single-word vocabulary is just as important. Some of the advantages of using single words to develop language and communication skills include the opportunity to:

- develop association and categorization skills,
- practice language in context,
- construct a variety of syntactical forms,
- generate novel sentences, and
- express language reflective of the person's own personality.

Unity 128 Version was also created to be expandable while minimizing the unlearning and relearning of icon sequences for vocabulary. With a small core, *Unity* 128 Version can be a starting point for those needing to recall a word by a single hit. As the person's communicative abilities grow, *Unity* 128 Version can expand to a larger vocabulary to allow for a fuller range of expression requiring two and three icon sequences.

In addition to the vocabulary that grows as the icon overlays expand, *Unity* 128 Version was also designed so that smaller vocabularies can be added to support a child's and adult's current educational, employment, and communicative needs. These vocabulary sets, called modules, can be removed as the individual outgrows them.

Also, the icon sequences to represent a word, phrase, or sentence have been created by the team to be teachable to the person. Teaching icon associations can often supply rich language experiences for the person providing the background or world knowledge necessary for learning vocabulary and using words to form sentences.

Methods of Access

Unity 128 Version is designed for individuals who demonstrate the potential to access independently a 128-location overlay as evaluated by an augmentative communication assessment team. **Access**, in this case, refers to the person's ability to select a desired location on the overlay whenever wanted.

Assessment

It is highly recommended that each candidate has a clinical assessment by a local team of professionals. This team may include a speech-language pathologist, occupational therapist, special educator, a PRC consultant, and others as necessary to determine whether *Unity* 128 Version is appropriate. For some individuals a trial period may also be necessary to truly identify candidates for this MAP. It is felt that with some creativity, proper teaching, and modifications, a wide range of people with various disabilities may be successful in learning and using *Unity* 128 Version. Also, as with any augmentative communication system and its vocabulary program, a solid support system is beneficial to become proficient with *Unity* 128 Version.

Icon Overlays

Unity 128 Version has four icon overlays for the l28-location vocabulary with DeltaTalker and Liberator. These four icon overlays all have the same icons in the same locations, but represent the ever-growing architecture and vocabulary of *Unity* 128 Version. The Pathfinder version only uses two overlays: the Single-Hit and the Sequenced-Hit.

Icon Overlay 1 has several grammar labels represented with a picture (e.g., the idea of "preposition" represented with a bridge because we can go over a bridge, under a bridge, or around a bridge) and icons or labels for tools (e.g., SPEAK DISPLAY). These grammar labels represented with a picture are called characterized icons. This icon overlay is used to code a part of the total vocabulary. On the Pathfinder, this is called the Single-Hit overlay and the word associated with each icon is printed above the picture.

Icon Overlay 2 adds more grammar labels (in the form of characterized icons) and tools, allowing the person to code more vocabulary. Icon Overlay 2 is considered a transitional icon overlay. Stickers for additional grammar labels can be added to aid in the transition. This allows the person communicating using Icon Overlay 2 to expand their overlay as their language abilities and communication needs grow. As the person develops, a smooth transition from Icon Overlay 2 to Icon Overlay 3/4 is possible.

Icon Overlay 3 contains all the icons and grammar labels, in the form of the characterized icons. It is used to recall the complete vocabulary. This is the Sequenced-Hit overlay on the Pathfinder.

Icon Overlay 4 is the same as Icon Overlay 3, except the characterized icons for the grammar labels have been replaced with printed words.

Vocabulary

The vocabulary in *Unity* 128 Version is separated to correspond to the four icon overlays. Icon Overlays 1 and 2 are considered to be transitional icon overlays. Vocabulary corresponding to these overlays are a sampling of the vocabulary available with Icon Overlay 3/4.

For **Icon Overlay 1**, or the Single-Hit overlay on Pathfinder, 78 words are available and are accessed by a single keystroke. This vocabulary is for the person who is not ready to sequence two and three icons.

Icon Overlay 2 includes the same vocabulary as Icon Overlay 1 with the addition of grammar markers. Approximately 770 words are available. Two- and three-part icon sequencing is introduced to the person with these vocabularies. Three-part sequences use double keystrokes on the first icon in the sequence.

Icon Overlay 3/4 and the Pathfinder Sequenced-Hit Overlay contain approximately 2,100 root words, 650 phrases and 60 sentences. The most frequently used vocabulary is stored under one- or two-part icon sequences.

The division of vocabulary discussed above was determined by first using Elder's (1992) vocabulary list (see Appendix A) of approximately 100 most frequently used vocabulary words tabulated by three adult frequency lists. This list was used clinically with great success as an interactive vocabulary for the adult population with cognitive disabilities. The vocabulary list consists of adjectives, adverbs, conjunctions, demonstratives, interjections, interrogatives, prepositions, pronouns, and verbs.

This word list also consists of basic vocabulary referred to as "core/structure" vocabulary that is usable for any age population (Mein & O'Connor, 1960; Stuart, 1993; Yorkston, Dowden, Honsinger, Marriner, & Smith, 1988). Therefore, this word list makes up the majority of the vocabulary words for Icon Overlays 1 and 2.

The vocabulary for Icon Overlay 2 and 3/4 was selected using the complete listing by Elder, plus a combination of vocabulary from current MAPs (*Communic-Eas*e, *IEP+*, *LLL*, and *WS*), word frequency lists from spoken and written language of preschool and school-aged children without disabilities (Raban, 1987; Beukelman, Jones & Rowan, 1989; McGinnis & Beukelman, 1989; Fried-Oken & More, 1992; Marvin, Beukelman, and Bilyeu, 1994), and word frequency lists from adult spoken language (Berger, 1967; Howes, 1966; Mein & O'Connor, 1960; Stuart & Beukelman, 1993; Yorkston, et al., 1988).

The following four guidelines were also used for selecting a vocabulary item in *Unity* 128 Version:

1) If the vocabulary item occurred in all the frequency studies listed above, it was selected to be included.
2) If the word was used with extremely high frequency within two or more of the studies, then the word was added.
3) If the vocabulary item covered a wide range of semantic categories or demonstrated a semantic paradigm, it was included.
4) If the word was considered communicatively functional determined by the clinical expertise of the authors, it was selected.

The vocabulary in *Unity* 128 Version was also selected and divided according to normal speech and language developmental guidelines. Therefore, when introducing vocabulary, it can be done in as typical a manner as possible.

For example, the vocabulary corresponding to Icon Overlay 2 contains auxiliary forms, such as "can," "do," "will," and "be" as well as conjunction forms, such as "and" and "because." They can be introduced to a child as young as 3 or 3-1/2 years of age (Bates, Bretherton, & Snyder, 1988; Bloom, 1991; Brown, 1973; Owens, 1984).

Vocabulary Sorts

Unity 128 Version comes with an Alpha Sort. This **Alpha Sort** lists all the vocabulary in *Unity* 128 Version in alphabetical order. This was created so that you can easily look up a word and find its icon sequence and the rationale for selecting that icon sequence.

On the CD that comes with the *Unity* 128 software, there is also a **Part of Speech Sort** that lists all the vocabulary alphabetically by its part of speech. If you want to look up the icon sequences for five adjectives to prepare for a treatment session, you can refer to the Adjective section in the Part of Speech Sort.

There is also an **Icon Sort** that allows you to view all the vocabulary stored under a particular icon. Perhaps you need to know all the vocabulary listed under the APPLE icon. A quick look under the APPLE icon in the Icon Sort will meet this need.

Modules

Unity 128 Version has been designed so that specialized vocabulary can be added through the use of modules. For example, book and song modules could be added for literacy and recreational activities with children. High school students might want modules for specific academic vocabulary (e.g., geography, world history, political science).

The development of modules is an ongoing activity. As they are made available, these modules will be merged into the existing *Unity* 128 Version vocabulary.

Beginning to Use *Unity* 128 Version

Lesson 1: Icon Selection and Assigned Associations

Minspeak is based on using pictures, called icons, to represent language. Selecting pictures to represent words can be a complex process because there are so many possibilities.

Selection of the icons and the ideas associated with them was based on several factors:

- teachableness,
- age appropriateness,
- usefulness for people with disabilities,
- relevance for people of diverse cultures, and
- richness of associations.

In *Unity* 128 Version, the big yellow smiling 1 icon represents the following ideas: afternoon, comic book, joke, laugh, lemonade, summer, sunny, yellow, etc. It is a perfect example of an icon because of its universal symbolism among cultures, people of all ages, and use in previous MAPs.

The characterized icons were developed to create a pictographic metaphor or character for that part of speech they represent. For example:

the paintbrush characterizes the idea of **adjectives**, which are words that describe a person, place, or thing often in degrees such as “big,” “bigger,” “and biggest;”

the airplane with the “ly” flag characterizes the idea of **adverbs**, which are words that describe action or time such as “slowly” or “quickly;”

the two linked trains characterize the idea of **conjunctions**, which are words that connect main ideas in a sentence;

the pointer characterizes the idea of **determiners**, which are words that point out objects like “that,” “this,” and “those;”

the explosion characterizes the idea of **interjections**, which are words that you pop into your sentence;

α

the woman, in a room, with a cupboard filled with items characterizes the idea of **nouns**, which are names of a person, place, or thing;

~

the bridge and cloud characterizes the idea of **prepositions**, which are words that describe where, such as "under a bridge," "around a bridge," "over a bridge," or "through a cloud"; and

}

the action man characterizes the idea of **verbs**, which are words of action.

The various icons in *Unity* 128 Version are combined to represent words based on logical and teachable connections between the icons. This logic is referred to as a "rationale." In this section, you will learn the names of icons and the assigned associations. You will also find icon sequences for some words and give the rationale for the sequence.

In Appendix A in your *Unity* 128 Version manual (reproduced for your convenience at the end of this lesson), you will find:

- the name of the icon as it appears in printed information (e.g., THUMBS UP),
- a picture of the *Unity* 128 Version icon (e.g.,),
- the name of the icon as it will appear in the display of your communication device to demonstrate what is on the actual LCD (e.g., THMBS UP) , and
- the matrix coordinates of the icon on the *Unity* 128 Version icon overlays (e.g., N5). These matrix coordinates relate the column letter and row number in which you will find the icon.

In all printed material (i.e., the Vocabulary Sort and this Tour Guide), the icons will be shown in all upper case letters (e.g., HOUSE, RAINBOW, SUN). On the display of the communication device, the names of the icons are often abbreviated because the device will accept icon names of only eight characters.

Let's take time now to learn the name of each icon and some of their associations. Here are some *Unity* 128 Version icons.

Icon Name	Icon	Associations
BOY	8	The BOY icon is associated with external and internal body parts as well as the boy-related positioning in the family. This icon is used in the icon sequences for the following words: brother, eye, nephew, son, and stomach.
HAMMER	2	The HAMMER icon is associated with work-related needs. This icon is used in the icon sequences for the following words: May Day (UK)/Labor Day (US), manual, practice, prepare, use, and work.
KITCHEN	K	The KITCHEN icon has been embellished with the addition of a pot on a stove. This icon is associated with kitchen and temperature-related words. KITCHEN is used in the icon sequences for the following words: bake, dishes, hot, mop, and straw.
MONEY	M	The MONEY icon has combined both American and English currency. This icon is associated with money-related vocabulary. MONEY is used in the icon sequences for the following words: cost, dime, dollar (US)/pound (UK), pay, and save.
YORK	Ψ	The YORK icon represents York Castle in the city of York, England. This icon represents various buildings and places. YORK is used in the icon sequences for the following words: city, court, hospital, house, library, and playground.

Activity Using the Alpha Sort in the *Unity* 128 Version Vocabulary Sort, find the icon sequences for the following words (Remember that the icon names appear in all upper case letters.):

Word	Part of Speech	First Icon	Second Icon	Third Icon
different	adjective	_____	_____	_____
almost	adverb	_____	_____	_____
unless	conjunction	_____	_____	_____
all	determiner	_____	_____	_____
everyone	indefinite pronoun	_____	_____	_____
September	noun	_____	_____	_____
behind	preposition	_____	_____	_____
can	preverb	_____	_____	_____
who	question word	_____	_____	_____
enjoy	verb	_____	_____	_____

Definitions

Adjective ..... a word that describes a person, place or thing (e.g., hot, tired, big, fast)
Adverb ..... a word that describes an action or time (e.g., run *quickly*, go *now)*
Conjunction ..... a word that connects ideas in a sentence (e.g., and, but, or)
Determiner ..... a word that tells which one (e.g., this, that, those)
Indefinite pronoun..... a word that starts with any, every, no, or some (e.g., anything, somebody, nowhere)
Noun ..... the name of a person, place, or thing (e.g., girl, home, bed)
Preposition ..... a word that tells where (e.g., in, out, under)
Preverb ..... a helper verb (e.g., can, will, might, should)
Question word ..... a word that asks who, what, when, where, why, or how
Verb ..... an action word (e.g., run, jump, eat, drink)

Activity

Using your device, access each of the words in the chart you have just completed. Using your Part of Speech Sort, find other words you want to say within each grammatical category listed in
Activity 1.

Activity

Can you give the rationale for each of the icon sequences for the words listed on the previous page? If you need help, refer to your Alpha Sort in the *Unity* 128 Version Vocabulary Sort to understand why the authors chose the icons. The authors made every attempt to make the icon sequences and their rationales teachable.

WORD	RATIONALE
different	_____
almost	_____
unless	_____
all	_____
everyone	_____
September	_____
behind	_____
can	_____
who	_____
enjoy	_____

Review

Make sure you completed the activities above and have thought about rationales for icon selections. Check your answers with the Alpha Sort in the Unity 128 Version *Vocabulary Sort. Are you beginning to think about making multiple associations with icons?*

Icon Selection and Assigned Associations *(continued)*

ICON NAME	ICON	ICON LABEL	ICON LOCATION
APPLE	A	APPLE	C6
BATH	B	BATH	H7
BED	η	BED	O7
BOOK	9	BOOK	L3
BOY	8	BOY	K3
CACTUS	!	CACTUS	C4
CHAIR		CHAIR	G8
COMPUTER		COMPUTER	F7
DICE	δ	DICE	D4
DOG	Δ	DOG	E6
EAR	E	EAR	E5
ELEPHANT	:	ELEPHANT	M6
EXIT	6	EXIT	I3
EYE	&	EYE	N4
FAMILY	Φ	FAMILY	F6
FLOWERS	5	FLOWERS	H3

FROG	γ	FROG	J4
GIRL	σ	GIRL	G4
GOD	Γ	GOD	G6

Icon Selection and Assigned Associations *(continued)*

ICON NAME	ICON	ICON LABEL	ICON LOCATION
HAMMER	2	HAMMER	E3
HOUSE	H	HOUSE	H6
ISLAND	I	ISLAND	J5
JUICE	ϑ	JUICE	I6
KITCHEN	K	KITCHEN	J6
KNOT	>	KNOT	B7
KNOW	0	KNOW	C3
LOVE	Λ	LOVE	K6
MASKS	,	MASKS	K7
MEDICAL	⚕	MEDICAL	M4
MONEY	M	MONEY	J7
MORNING	(	MORNING	K4
MOUNTAIN	ϖ	MOUNTAIN	H4
MUSIC	⊥	MUSIC	M3
NAME	N	NAME	I7
NIGHT	)	NIGHT	L4

NUMBER	#	NUMBER	B8
OPEN	O	OPEN	K5
PEOPLE	Π	PEOPLE	L5
PHONE	χ	PHONE	E4

Icon Selection and Assigned Associations *(continued)*

ICON NAME	ICON	ICON LABEL	ICON LOCATION
POLICE	]	POLICE	O6
QUEENBEE	Θ	QUEENBEE	C5
RAINBOW		RAINBOW	M5
REMEMBER	P	REMEMBER	F5
RETURN	→	RETURN	N7
SCALES	3	SCALES	F3
SENTENCE	ω	SENTENCE	K8
SHOE	7	SHOE	J3
SNAIL	Σ	SNAIL	D6
SPACE	ρ	SPACE	H8
STOP	.	STOP	L7
SUIT	4	SUIT	G3
SUN	1	SUN	D3
THINK	β	THINK	F4
THUMBS DOWN	[	THMBS DN	N6

THUMBS UP		THMBS UP	N5
TIME	T	TIME	G5
TRIANGLE	τ	TRIANGLE	I8
TRUCK	;	TRUCK	L6
TV	?	TV	M7

Icon Selection and Assigned Associations *(continued)*

ICON NAME	ICON	ICON LABEL	ICON LOCATION
UMBRELLA	Y	UMBRELLA	I5
VOLT	ς	VOLT	G7
WANTED	Ω	WANTED	D5
WATCH	ο	WATCH	C7
WRONG	π	WRONG	I4
X-RAY	Ξ	X-RAY	E7
YORK	Ψ	YORK	H5
ZEBRA	Z	ZEBRA	D7

Icon Selection and Assigned Associations *(continued)*

ICON NAME	CHARACTERIZED ICON	ICON LABEL	ICON LOCATION
ADJECTIVE	μ	ADJ	I2
ADJECTIVE + ER	λ	ADJ+ER	J2
ADJECTIVE + EST	ν	ADJ+EST	K2
ADVERB	ϕ	ADVERB	K1
CLEAR DISPLAY	⇓	CLEAR DISPLAY	P8
CONJUNCTION	κ	CONJ	H1
DELETE CHARACTER		DELETE CHAR	P7
DELETE ICON		DELETE ICON	P5
DELETE LAST SELECTION		DELETE LAST SELECT	P4
DELETE WORD		DELETE WORD	P6
DETERMINER	♥	DET	G1
HE	/	HE	A5
I (Female)	∃	I	A3
I (Male)		I	A3
INTERJECTION		INTERJ	F1
MINSERT	_	MINSERT*	M1
NOTEBOOKS	∂	NOTEBOOKS**	P1

NOUN	α	NOUN	L2
NOUN PLURAL	♣	NOUN PL	M2
OBJECTIVE	≅	OBJ	A2

*Liberator only.
**IMPORTANT: NOTEBOOK not available on DeltaTalker.

Icon Selection and Assigned Associations *(continued)*

ICON NAME	CHARACTERIZED ICON	ICON LABEL	ICON LOCATION
OPEN/CLOSE NOTEBOOKS	θ	OP/CL NOTEBOOK *	N1
POSSESSIVE	—	POSS	B2
PREPOSITION	~	PREP	I1
PREVERB	+	PREVERB	B5
PREVERB + S	–	PREVERB+S	B6
QUESTION WORD	ψ	?WORD	J1
SENTENCE	ω	SENTENCE	K8
SHE	*	SHE	A6
SPEAK DISPLAY	′	SPEAK DISPLAY	A1
SPELL/MINSPEAK	∴	SPELL/MINSPEAK	D1
THEY	=	THEY	B4
TO + VERB	φ	TO+VERB	H2
VERB	}	VERB	C2
VERB + ED	ε	VERB+ED	F2
VERB + EN	ι	VERB+EN	G2

VERB + ING	o	VERB+ING	E2
VERB + S	ς	VERB+S	D2
WE	≥	WE	B3
YOU	♦	YOU	A4

*Liberator only. OPEN/CLOSE NOTEBOOK not available on DeltaTalker.

Lesson 2: Icon Overlays and Overlay Arrangement

Four icon overlays are provided with *Unity* 128 Version to simplify introduction of the core vocabulary and provide smooth transitions as vocabulary is added. These four icon overlays also allow for the gradual introduction of two- and three-part icon sequences and the introduction of additional parts of speech and grammatical endings (e.g., ing, ed).

Overlays shown in our illustrations have been designed for Liberator. Refer to the Appendices for illustrations of icon overlays designed for other devices.

Overlay 1 (see Figure 1) has:

- 67 icons for coding vocabulary;
- 13 pictures to represent different parts of speech (i.e., pronouns, interjections, determiners, conjunctions, prepositions, question words, and adverbs); and
- 3 pictures to represent tools (i.e., SPEAK DISPLAY, CLEAR DISPLAY, SPELL/MINSPEAK Mode).

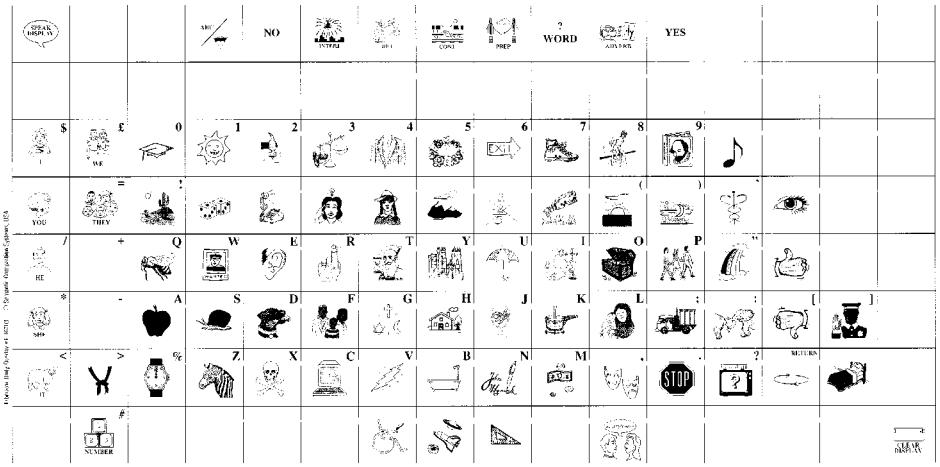


Figure 1

The vocabulary for Icon Overlay 1 has approximately 75 root words. Each vocabulary word on Icon Overlay 1 is coded with <u>just one icon.</u> However, to say that same word on later icon overlays, the person has to add a second icon. For example, on Icon Overlay l the word “like” is coded with the SUN icon. On Icon Overlay 2, “like” is coded by sequencing SUN + VERB.

Note how the second icon (e.g., VERB) follows the SUN icon. This is an example of how the person learning the icon sequence for "like" does not have to unlearn and relearn icons used in the sequence.

Icon Overlay 2 (see Figure 2) consists of all the icons on Icon Overlay 1 with the addition of five new characterized icons:

- ADJECTIVE
- NOUN
- OBJECTIVE
- POSSESSIVE
- VERB

The verbs and adjectives introduced at level one will now have to be recalled by sequencing two icons. For example, "like" now has to be recalled by activating SUN and VERB. The nouns will require two or three hits.

Three-part icon sequencing is also introduced with Icon Overlay 2 with two activations made on the first icon. For instance, "laugh" is recalled by activating SUN + SUN + VERB. This icon overlay codes approximately 770 words.

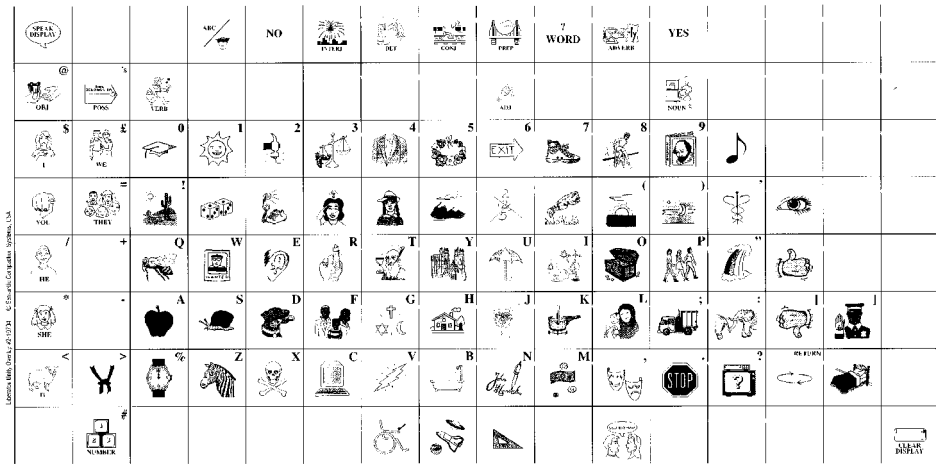


Figure 2

Icon Overlay 3 (see Figure 3) is for the person who wants to have each part of speech represented by a characterized icon.

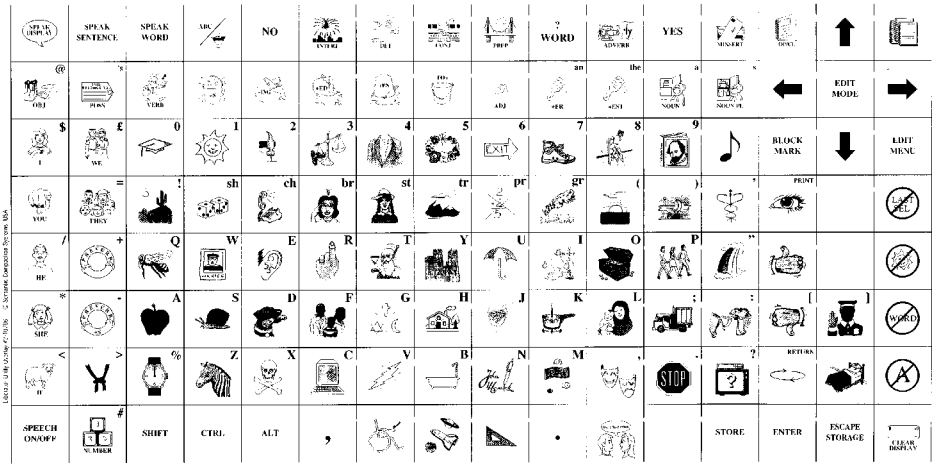


Figure 3

Icon Overlay 4 (see Figure 4) is for the older child or adult. It has the icons present on Icon Overlay 3 with the grammatical labels written rather than represented by characterized icons. Approximately 2,100 words, 650 phrases, and 20 sentences are available with both of these icon overlays.

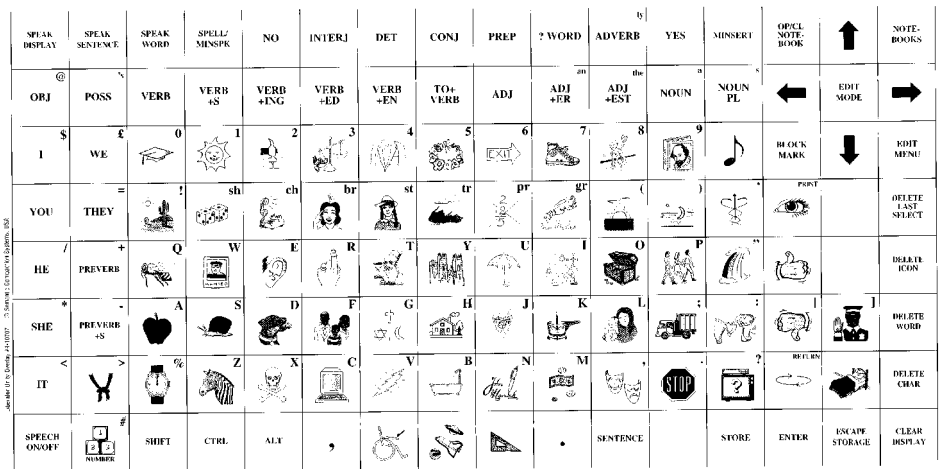


Figure 4

Please note that *Unity* 128 Version comes with a choice of either characterized icons or the printed text for each grammar label. Use your clinical judgment and the opinion of the person using *Unity* 128 Version to select the most appropriate version. On the Pathfinder, only the characterized overlay is used.

The arrangement of icons on an icon overlay contributes to the effective use of the MAP, as well as enhances incidental learning in areas such as language development, literacy, and interaction.

The icon overlays were arranged with specific design considerations. Examples of the icon arrangement rationales are given on the chart below.

Strategy	Example	Rationale
Icon-letter associations	A = APPLE J = JUICE M = MONEY	To promote sound-letter association/identification with each icon label and the corresponding letter of the alphabet.
Grammatical groupings	Closed-class Open-class	To assist locating certain grammatical forms. Closed-class forms cannot change grammatically. Open-class forms can change.
Characterized grammar labels	Adjectives, adverbs, conjunctions, determiners, interjections, nouns, prepositions, pronouns, verb endings.	To help learn grammatical markers for young children unable to read grammatical labels.
Multi-cultural icons	The BOY icon, GIRL icon, POLICE icon, and THINK icon.	To represent the cultural diversity of the world, a wide range of ethnic and cultural backgrounds are represented on this icon overlay.
Highlighted grammar labels	Solid pastel background of blue, green, and pink.	Different pastel-colored stickers are included with *Unity* 128 Version to be used to differentiate the parts of speech or pronoun, open-class, and closed-class paradigms.

Activity

Give three examples of icons that have icon-letter associations.

1. _____

2._____

3._____

Give two examples of icon groupings.

1._____

2._____

List four multi-cultural icons that appear on the icon overlay.

1._____

2._____

3._____

4._____

Activity

Unity 128 Version comes with a disk of all the vocabulary programming. On that disk, you will see various files that you can load into your device. You need to load in the correct vocabulary file to correspond with the icon overlay you are using.

Icon Overlay 1 = Vocabulary for Icon Overlay 1
Icon Overlay 2 = Vocabulary for Icon Overlay 2
Icon Overlay 3 or 4 = Vocabulary for Icon Overlay 3/4 or Combo File

Pathfinder has Single-Hit and Sequenced-Hit vocabularies as defaults, already loaded.

For now, load the vocabulary for Icon Overlay 3/4 into your device. (For help in doing this, see Appendix D for DeltaTalker or Appendix E for Liberator.) Although this may not be the vocabulary the person using *Unity* 128 Version is going to start with, by using the vocabulary for Icon Overlay 3/4 in this workbook, you have the opportunity to investigate the full *Unity* 128 Version program. With the Pathfinder, use the Sequenced-Hit vocabulary that is default in User Area 2.

Activity

Discover a little about *Unity* 128 Version by pressing some icon sequences. Notice that there are lights next to the icons and many of the lights are lit. Any icon that has a light on is being predicted as an icon in a sequence (this is called Icon Prediction). To discover vocabulary, simply press icons that are being predicted.

Review

With this lesson, you saw how easy it is to say words. In the next lessons, you are going to learn how the words are coded.

All languages have rules. A Minspeak-based system, primarily a visual language, is no exception. Therefore, understanding the rules, or architecture, for the logical organization of each MAP is critical to the learning of the MAP. The patterns for the architecture are called **paradigms**.

In *Unity* 128 Version, there are specific paradigms for saying:

- single words,
- phrases, and
- sentences.

There are also paradigms for coding special features available in the DeltaTalker, Liberator and Pathfinder.

In this lesson, you are going to learn and use each of these paradigms. After completing this activity, you should have a clear understanding of *Unity* 128 Version's architecture. Understanding the architecture will allow you to teach and customize it successfully for the person learning it.

As you work with your device to talk, remember to pay attention to the lights next to the icons. These lights are "coaching" you to select that icon. They are there to help you find and select the right icon. A simple rule to remember is: "Push where you see a light!" This feature, called **icon prediction**, is a great help in selecting icon sequences.

Single Word Paradigms

There are several paradigms for single words, based on whether the word is part of a "closed-class" of words or an "open-class" of words.

Closed-class vocabulary consists of words that cannot change grammatically (i.e., the ending does not change). They include some adverbs, conjunctions, determiners, helping verbs, interjections, numbers, prepositions, pronouns, and question words. Closed-class vocabulary tends to be a relatively small set of words.

Open-class vocabulary includes words that can change grammatically (i.e., the ending changes). For example, "eat" changes to "eats," "eating," "ate," and "eaten;" "fast" changes to "faster" and "fastest;" "soft" changes to "softly;" and "animal" changes to "animals."

Words from the open-class vocabulary also have a tendency to cross grammatical boundaries. For example, the word "check" can be both a noun ("I wrote a check.") and a verb ("Check on him."). The adjective "quick" can become an adverb ("quickly").

Word groups that are considered open-class vocabulary are adjectives, some adverbs, nouns, and verbs.

Many of the words in *Unity* 128 Version are categorized with the first icon representing a specific category. This was done for two reasons:

1) People tend to learn and recall vocabulary by categorizing a word in some fashion. For example, when people learn about foods, they may categorize a particular food as a "fruit," "meat," or "dessert." Categorizing vocabulary in such a manner can also assist in recalling a particular word on command.

2) Categorizing the vocabulary also provides a structure for the development of future vocabulary modules. For instance, all the food-related words in *Unity* 128 Version begin with the APPLE icon. To recall fruit vocabulary, APPLE + APPLE is activated, or to recall meats, APPLE + SCALES is selected. With future modules, APPLE plus a second icon representing that particular food category can be chosen. The new set of words can then be easily merged into *Unity* 128 Version's current food paradigm.

—Single Activations

For almost everything you say, you have to press either a two- or three-part icon sequence. One part sequences (i.e., you only press one picture or key to say a word) have been saved in *Unity* 128 Version for words that are used frequently in conversation (e.g., a, not, the, is, are, was, were).

Activity

Use your device to say each of these words recalled by a single keystroke:

WORD	ICON
a	NOUN
an	ADJ+ER
are	VERB
is	VERB+S
not	KNOT
on	VERB+EN
the	ADJ+EST
to	TO+VERB
was	VERB+ED
were	VERB+ING

—Closed-class Paradigms

Most closed-class words are recalled by pressing the icon for the category of the word followed by the icon for the specific word.

This paradigm was designed so that the person learning to use *Unity* 128 Version can take advantage of icon prediction. That is, by selecting the icon that represents the category, only the lights are lit for the icons that represent a specific word.

CATEGORY ICON	+	WORD ICON(S)	= WORD

Activity

1. Looking at your icon overlay, find the icon for each of these closed-class categories:

   - Adverb
   - Conjunction
   - Determiner
   - Interjection
   - Preposition
   - Question Word

2. Press the ADVERB icon and then select one of the other icons that is still lit (using icon prediction). What word did you say? _____

   Investigate the other available adverbs by pressing ADVERB plus a second, lit icon.

Make sure you find:

- again (ADVERB + RETURN)
- just (ADVERB + SHOE)
- much (ADVERB + MONEY)

3. Press the CONJ icon and then select one of the other icons that is still lit. What word did you say?

   _____

   Investigate the other available conjunctions by pressing CONJ plus a second, lit icon.

   Make sure you find:

   - and (CONJ + CONJ)
   - whether (CONJ + UMBRELLA)
   - while (CONJ + PHONE)

4. Press the PREP icon and then select one of the other icons that is still lit. What word did you say?

   _____

   Investigate the other available prepositions by pressing PREP plus a second, lit icon.

   Make sure you find:

   - around (PREP + WATCH)
   - up (PREP + THMBS UP)
   - of (PREP + PREP)

5. Practice the same paradigm to investigate the determiners and interjections.

   What words did you find?

DETERMINERS	INTERJECTIONS
_____	_____
_____	_____
_____	_____
_____	_____

6. Press the ? WORD icon and then select one of the other icons that is still lit. What word did you say?

   _____

   Investigate the other available question words by pressing ? WORD plus a second, lit icon.

   Make sure you find:

   - how (? WORD + HAMMER)
   - what (? WORD + TV)
   - where (? WORD + ISLAND)

   Although the following words are not question words, the addition of "ever" to the question words "what," "where," "when," and "how" are said by reversing the icon sequence for each question word.

7. Practice saying these words:

   HAMMER + ? WORD = however
   TV + ? WORD = whatever
   ISLAND + ? WORD = wherever

Pronouns are closed-class vocabulary because the endings do not change and there is a "countable" number of them. There are five kinds of pronouns in the English language:

- Subject Pronouns ..... I, you, he, she, it, we, they
- Object Pronouns..... me, you, him, her, it, us, them
- Possessive Adjectives ..... my, your, his, her, its, our, their
- Possessive Pronouns ..... mine, yours, his, her, its, ours, theirs
- Indefinite Pronouns..... anybody, everybody, somebody, nobody, anywhere, everywhere, somewhere, nowhere, to name a few.

There is no special category icon in *Unity* 128 Version for pronouns, so pronouns are coded with a slightly different paradigm than the other closed-class vocabulary.

Activity

1. Practice saying the "subject" pronouns. The paradigm is to select the icon twice: ICON + ICON.

   For example:
   I + I = I
   YOU + YOU = you
   HE + HE = he
   SHE + SHE = she
   IT + IT = it
   WE + WE = we
   THEY + THEY = they

2. Practice saying the object form by selecting the ICON + OBJ.

   For example:
   I + OBJ = me
   WE + OBJ = us

3. Go in the reverse direction to get the reflexive pronouns: OBJ + ICON.

   For example:
   OBJ + I = myself
   OBJ + WE = ourselves

4. The possessive adjective form, which acts like an adjective in a sentence (e.g., That is *our* book on the table.), is coded by pressing ICON + POSS.

   For example:
   I + POSS = my
   WE + POSS = our

5. The other possessive form, which acts like a noun in a sentence (e.g., *Ours* is on the table.), is coded by going in the reverse direction: POSS + ICON.

   For example:
   POSS + I = mine
   POSS + WE = ours

Activity

With all "indefinite" pronouns, the first icon corresponds to the first letter of the indefinite pronoun (A, E, S, or N), and the second icon represents the idea of the ending word of the indefinite pronoun. For example, with "anyone" the APPLE represents "any" and the SUN represents "one."

Other examples include:

APPLE + HAMMER = anyhow
APPLE + TRUCK = anything
APPLE + ISLAND = anywhere

1. Practice saying these words:

APPLE + ISLAND = anywhere
EAR + ISLAND = everywhere
SNAIL + ISLAND = somewhere
NAME + ISLAND = nowhere

APPLE + TRUCK = anything
EAR + TRUCK = everything
SNAIL+ TRUCK = something
NAME+ TRUCK = nothing

APPLE + BOY = anybody
EAR + BOY = everybody
SNAIL + BOY = somebody
NAME + BOY = nobody

—Open-class Paradigms

The primary paradigm for coding open-class vocabulary is to press the icon for the word then the icon for the part of speech, called the **grammar icon**.

WORD ICON	+	GRAMMAR ICON	= WORD

Remember, open-class vocabulary are words that change their endings. They include nouns, verbs, adjectives, and adverbs that end in "ly."

Activity

1. Find these keys on your device:

   - ADJ
   - ADJ+ER
   - ADJ+EST
   - ADVERB
   - NOUN
   - NOUN PL
   - VERB
   - VERB+S
   - VERB+ING
   - VERB+ED
   - VERB+EN
   - TO+VERB

2. Practice saying each of these example words (Remember, press WORD ICON + GRAMMAR ICON.):

   • *Adjectives*

   DICE + ADJ = little
   VOLT + ADJ = fast
   RAINBOW + ADJ = pretty

   • *Adverbs*

   KNOW + ADVERB = surely
   MONEY + ADVERB = really
   THINK + ADVERB = brightly

   • *Nouns*

   APPLE + NOUN = food
   HOUSE + NOUN = home
   ZEBRA + NOUN PL = animals

   • *Verbs*

   SUN + VERB = like
   MEDICAL + VERB+ING = helping
   NIGHT + VERB+ED = wished
   APPLE + VERB+ED = ate

Open-class vocabulary are large classes of words. In order to code as many words as possible, three-part icon sequences are needed.

The paradigm for coding large numbers of nouns, verbs, and adjectives is based on a strategy for classifying words in groups of words that go together.

For verbs and adjectives, the first icon represents the major category, the second icon represents the specific word, and the third icon represents the part of speech in which the word belongs.

CATEGORY ICON	+	WORD ICON	+	GRAMMAR ICON	=	WORD

Activity

1. Practice saying these example adjectives and verbs.

   • *Adjectives*

   UMBRELLA + MOUNTAIN + ADJ = snowy
   UMBRELLA + SUN + ADJ = sunny
   ELEPHANT + ADJ = big
   ELEPHANT + ELEPHANT + ADJ = large

   • *Verbs*

   RAINBOW + NAME + VERB = draw
   RAINBOW + TIME + VERB = cut
   RAINBOW + HOUSE + VERB = paint

   SHOE + ZEBRA + VERB = kick
   SHOE + FROG + VERB = jump
   SHOE + VOLT + VERB = run

If you are using a Liberator, please note that several ADJ + ER and ADJ + EST forms are “empty” even though the icon prediction lights are lit. This is occurring because the particular adjective you selected does not have a + ER or + EST form. For example, the adjective “false” does not have an ADJ + ER or an ADJ + EST form.

Activity

1. Press the EYE icon. Next, press the ADJ icon. The word "same" should appear on the display.

2. Now press the EYE icon and then the ADJ+ER icon.

   What do you see on the display?

   _____

3. Next try pressing the EYE icon and then the ADJ+EST icon. The display should be empty.

Nouns are a very large group of open-class words. The paradigm for coding groups of nouns is also based on selecting an icon for the category, then a second icon for the sub-category, then a third icon for the specific word (instead of the NOUN grammar icon). This is a little different from the adjectives and verbs.

CATEGORY ICON	+	SUBCATEGORY ICON	+	WORD ICON

Activity

1. Practice saying these example nouns:

   APPLE + APPLE + APPLE = apple
   APPLE + APPLE + NIGHT = banana
   APPLE + APPLE + UMBRELLA = cherry

   JUICE + JUICE + MORNING = coffee
   JUICE + JUICE + JUICE = juice
   JUICE + JUICE + ISLAND = water

Phrase Paradigms

Phrases are a powerful part of *Unity* 128 Version, giving the person a lot of communication power for little effort. All of these phrases are combined with one of the pronoun keys.

Phrases are recalled in *Unity* 128 Version by selecting a:

- pronoun-to-picture to get a statement phrase, and
- picture-to-pronoun (the reverse) to get the question form of the same phrase.

Activity

1. Practice saying these example phrases:

   I + JUICE = I can
   JUICE + I = can I

   HE + BOOK = he will
   BOOK + HE = will he

   THEY + TRUCK = they could
   TRUCK + THEY = could they

   I + QUEENBEE = I am
   HE + QUEENBEE = he is
   THEY + QUEENBEE = they are

2. Practice saying these short sentences using the phrases and single words you have learned so far:

   - I can walk.
   - Can you walk?

   - He will help me.
   - Will she help me?

   - We could paint it.
   - Could we paint it?

   - They are wishing.
   - Are they wishing?

These phrases can also be recalled in the negative form. This paradigm is referred to as **PNP**. You are going to keep using the pronoun keys and pictures, but add the picture of the KNOT (for "not") in the middle.

In the PNP formula:

- Negative statement

  P = Pronoun N = Not P = Picture

- Negative question

  P = Picture N = Not P = Pronoun

The "Not" in this formula is always in the middle.

3. Practice these examples:

   I + KNOT + JUICE = I can't
   JUICE + KNOT + I = can't I

   HE + KNOT + BOOK = he won't
   BOOK + KNOT + HE = won't he

   THEY + KNOT + TRUCK = they couldn't
   TRUCK + KNOT + THEY = couldn't they

4. Make up some short sentences on your own using negative statements (e.g., I can't help.) and negative questions (Can't they help me?).

Sentence Paradigms

Preprogrammed sentences are useful for functional sentences that have to be said often and quickly.

Preprogrammed sentences begin with the SENTENCE icon followed by a picture representing the sub-category followed by an icon representing the specific meaning of the sentence. A starter set of 60 sentences for the Liberator and 52 sentences for the DeltaTalker has been stored for the person using *Unity* 128 Version.

Activity

Practice saying these examples of sentences:

SENTENCE + TV + QUEENBEE =
Are you busy right now?

SENTENCE + PEOPLE + EAR =
Wanna hear a secret?

SENTENCE + PHONE + THINK =
Please let me know if you don't understand my voice.

Review

You should have tried the examples listed for each paradigm within Unity 128 Version and tried several more examples using the Vocabulary Sort for reference. Are you feeling more comfortable with the patterns that help you remember vocabulary?

To review one more time, reproduce the graphics that were on the previous page that will remind you of the basic closed-class and open-class architecture of Unity 128 Version.

CLOSED-CLASS PARADIGM
(except for the pronouns)

[ ] + [ ] = WORD

OPEN-CLASS PARADIGM

[ ] + [ ] = WORD

[ ] + [ ] + [ ] = WORD

[ ] + [ ] + [ ] = WORD

Special Features

—Menus

Since entering menus through the Toolbox by lifting and lowering the keyguard may be too difficult for a person using a DeltaTalker, Liberator, or Pathfinder several menus have been prestored using symbol sequences. All menus are stored under the icon sequence COMPUTER + KNOT. Knot was used to caution you that this sequence is for special device features and not for coding a word, phrase, or sentence. The following menus have been stored:

- Dictionary Menu
- Feedback Menu
- Notebook Menu (Liberator only)
- Output Menu
- Review Memory/Review Vocabulary Menu
- Speech Menu

For the DeltaTalker, you can navigate through the menus by selecting the following tools:

- NEXT MENU ITEM (located on the INTERJ icon at F1)
- CHANGE ITEM (located on the DET icon at G1)
- EXIT (located on the CONJ icon at H1)
- TOOLBOX ON/OFF (located on the ADVERB icon at K1)

For the Liberator, you can navigate through the menus by selecting the numbers 1 through 7.

With Pathfinder, you can select directly from the display or use numbers on the keyboard.

Activity

1. Press the icon sequences listed below and note the menus stored under each sequence.

   COMPUTER + KNOT + MUSIC =

   _____

   COMPUTER + KNOT + PHONE =

   _____

   COMPUTER + KNOT + EYE =

   _____

—Songs

Unity 128 Version also has a sampling of songs. All songs are stored under the MUSIC icon.

Activity

1. Press MUSIC + THINK.
2. Now press any one of the lit icons. What song did you hear? _____
3. Press MUSIC + LOVE.
4. Now press any one of the lit icons. What song did you hear? _____

Songs have been entered into *Unity* 128 Version to provide a "sampling." We were limited in cultural and religious diversity because all songs are taken from public domain. Additional public domain songs will be made available in future modules.

Review

I hope you explored all the prestored menus and several of the songs. Now turn the page to learn about special Liberator features included in Unity 128 Version.

Special Liberator Features

—Calculator

The Liberator has a calculator feature that allows you to calculate basic math problems. In *Unity* 128 Version, this calculator has been prestored under the sequence COMPUTER + KNOT + TRIANGLE.

Activity

1. Activate COMPUTER + KNOT + TRIANGLE. Note that the numbers are lit along with the addition, subtraction, multiplication, and division symbols. Other icons are lit also so you can add a decimal point, print, advance the printer paper, or exit.

2. Explore this feature by trying at least one addition, subtraction, multiplication, and division problem.

☞ Refer to your Liberator operator's manual for more detailed discussion on the calculator. You will learn various functions like copying an answer of a problem in your calculator to a notebook.

—Macros

Macros can be used for anything you do with your device that involves a series of steps and is done often. For example, you might want to check the charge in the device battery throughout the day. With a Liberator, checking the battery involves over five steps (including opening and closing a Liberator menu). This might be too hard for the person using the Liberator to do. So a macro is created to simplify everything.

Macros have been preprogrammed in *Unity* 128 Version for ease in recalling specific functions such as battery status, date, and time.

Activity

1. Activate the following icon sequences and note the macro stored with each sequence:

   - VOLT + VOLT + VOLT = _____
   - PHONE + TIME + SUN = _____
   - PHONE + TIME + WATCH = _____

—Music Synthesizer

Unity 128 Version for the Liberator also has a music synthesizer for you to compose your own songs at a most basic level. This synthesizer is under the icon sequence of MUSIC + KNOT + COMPUTER. The KNOT was selected to caution you that this feature in the Liberator is a special function rather than an icon code for a word, phrase, or sentence.

The music synthesizer has notes that can be placed together to sing a song. It also has special functions to:

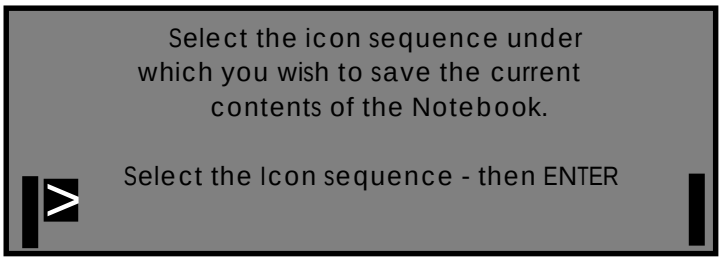
- play the song,
- play the song again,
- erase an incorrect note, and
- exit.

Activity

Using the Part of Speech Sort in the Vocabulary Sort, find the section labeled "Music Synthesizer" (Appendix B). With the notes provided, combine the icons recommended to play "Mary Had a Little Lamb." Explore how to play the song, repeat it, erase an incorrect note, and exit.

—Notebooks

When opening a notebook in the Liberator for the first time after *Unity* 128 Version has been loaded, do not be surprised if you get the following message:



When first opening a notebook in the Liberator, the notebook is always untitled since it has not yet been used or saved. With this message, the Liberator is asking you if you want to title the empty untitled notebook. You simply respond to this message by selecting the ENTER key. You are now able to access any of the pre-developed notebooks!

—Notebooks for Reading

Reading notebooks can be used for storing favorite story time books for a child to read. Two reading notebooks have been stored in *Unity* 128 Version under the BOOK icon. A special macro has been written so that a child or facilitator does not accidentally write in this notebook. This macro also allows you to:

- speak one sentence at a time,
- speak one word at a time,
- return to the previous sentence,
- return to the beginning of the book, and
- exit.

Activity

1. Press the BOOK icon on your Icon Overlay. Find the following icons that are lit:

   - WATCH
   - ZEBRA

2. Press the ZEBRA icon. You should now see the LOVE icon lit. Press this icon to open the reading notebook.

   What classic children's book is stored in this

   notebook?_____

3. Select the icon sequence for "awesome" by pressing INTERJ + SPACE. Notice how the reading notebook closed automatically so that you do not accidentally write in the notebook when reading the book. This allows the child using the Liberator to comment on the pictures or some other aspect of the book as it is being read. To return to the notebook simply press the OP/CL NOTEBOOK icon at location N1.

4. The reading books stored in *Unity* 128 Version also have some helpful literacy features. Let's explore some of these features.

   a. Press SPEAK SENTENCE. What happens?

   _____

   b. Press SPEAK WORD. What happens?

   _____

c. Press the BOOK + THMBS UP sequence. What happens?_____

d. Press the BOOK + RETURN sequence. What happens?_____

e. Press the BOOK + POLICE sequence. What happens?_____

5. When you are finished reading the book, close the reading notebook by pressing the sequence BOOK + POLICE.

–Notebooks for Writing

A writing notebook can be used for the person who needs a place to store notes on homework assignments for math, science, or reading classes. Notebooks also may contain notes for a professional presentation.

In *Unity* 128 Version, several writing notebooks are pre-developed and coded so they can be opened easily. All the steps for opening and closing the notebooks are stored as a single unit of commands (called a macro) with icon sequences.

It is important to erase your writing notebooks before you write in them yourself. This is necessary so when you print your notebook for personal or school assignments, you do not print the prestored description in each notebook along with your new text.
Erasing a notebook is quite simple by doing the following steps:

1. While in an open notebook, press EDIT MENU.

2. Press “1” for “Set Block Marker at Cursor.”

3. Use the UP arrow key to highlight the entire prestored description.

4. Press EDIT MENU again.

5. Press “4” for “Delete Block” to erase the highlighted text.

6. Select OP/CL NOTEBOOK (N1) to exit your writing notebook.

Activity

1. Press NOTEBOOK on your icon overlay.

   You see five icons lit:

   - WRONG (for math class notes and assignments),
   - SPACE (for science class notes and assignments),
   - BOOK (for reading class notes and assignments),
   - PHONE (for documenting phone numbers), and
   - NAME (for journal writing).

2. Press the WRONG icon to open the math notebook.

   What is in the math notebook?

   _____

3. Close the math notebook by pressing OP/CL NOTEBOOK on your icon overlay.
4. Explore the other notebooks (press NOTEBOOK first). Remember to close them by pressing OP/CL NOTEBOOK.

—Scratchpad

The Liberator also has a scratchpad feature that allows you to figure basic math problems long hand to practice the various steps involved in solving problems.

To solve any math problem with a worksheet, you must be able to note that you have borrowed or carried a number, or a remainder is left. The Liberator's scratchpad allows you to work these steps, but it won't do the calculations for you. You must do them yourself.

This scratchpad feature has been prestored under the sequence COMPUTER + KNOT + WRONG. In *Unity* 128 Version, the steps of borrowing, carrying, and noting a remainder are stored under the following icons:

- BATH (BATH for "borrow")
- COMPUTER (COMPUTER for "carry")
- REMEMBER (REMEMBER for "remainder")
- JUMP (Serves as the ENTER key which "jumps" the cursor back and forth as a division problem is being figured.)

Activity

1. Press COMPUTER + KNOT + WRONG. Note that the numbers are lit along with the addition, subtraction, multiplication, and division symbols. Other icons are lit also so you can print, advance the printer paper, or exit.

2. Explore at least one addition, subtraction, multiplication, and division problem using the features for borrowing, carrying, and noting remainders.

3. Explore how you can use the following functions to correct mistakes or move around the work space:

   - UP arrow
   - DOWN arrow
   - LEFT arrow
   - RIGHT arrow
   - DELETE CHAR
   - DELETE WORD
   - CLEAR DISPLAY
   - SPACE keys

Special Pathfinder Features

The Pathfinder communication aid has some special software and hardware features that enhance the way in which the *Unity* 128 Version software can operate. The most noticeable one is that it has a large, color display with an Activity Row. This row can be used for pictures of vocabulary.

Users of this device will see that when they press certain keys, the row fills with pictures that correspond to the vocabulary stored under icon sequences. Sometimes it is necessary to scroll through a number of rows to get to the desired word. This is the trade off between using the icon sequences or the Activity Row. Using icon sequences can take fewer keystrokes, but for some people, the pictures may be more appealing.

So, you can choose between keyboard sequences or Activity Row pictures. Either way, the vocabulary available to you is the same as with *Unity* 128 in DeltaTalker and Liberator.

The variations can be found in more detail in the Appendices, starting with Appendix J. Take a look at these if you wish. However, you will probably find the way in which the Activity Row operates fairly obvious and intuitive. For details on how to add, modify or delete icons in the Activity Row, refer to your Pathfinder operator's manual.

☞ Review your Liberator operator's manual for more detailed discussion on the use of the scratchpad feature.

Review *Were you able to find all five notebooks and all three macros?*

Lesson 4: MAP Content

Vocabulary Categories

Understanding and using a MAP demands a comprehensive review of the vocabulary content. It is important to learn what kinds of words are available, especially the kinds of verbs and nouns.

This review allows the person learning the MAP to make decisions regarding MAP use and implementation. When learning the vocabulary content of any MAP, vocabulary should be systematically presented using an approach, which is unique to each MAP.

Activity

1. Look at the following chart listed. The chart shows the content area of vocabulary, the number of entries in that area, and some examples of words that can be found there. This chart is a summary of the kinds of words in *Unity* 128 Version.

   You may notice that many of the categories have only a few words entered. This was done to establish the paradigm for you. Then you can easily add more vocabulary as needed for the person learning to use *Unity* 128 Version.

   Please recognize that the vocabulary in *Unity* 128 Version is in its formal form (e.g., "father" versus "dad"). You are encouraged to customize any of these words to meet your familial and cultural needs.

   Before customizing, however, explore the icon sequences of the following words:

   Christmas (GOD + GOD + THINK)
   Merry Christmas (INTERJ + GOD + THINK)
   We Wish you a Merry Christmas (MUSIC + THINK + THINK)

   Notice how all the associations with the THINK icon in *Unity* are related to "Christmas." All throughout the program, consistency was attempted when selecting icon sequences. When customizing vocabulary for your client, try to investigate the meanings of each icon, and if at all possible, select an icon sequence that is consistent with *Unity*'s icon sequences. For example, if you want to add the word "Christmastime," you may want to consider using the THINK icon as part of the icon sequence (i.e., WATCH + GOD + THINK).

2. Using your device and the chart as a reference to look up the icon sequences for the words, practice saying these simple sentences:

   - Thank you for helping me.
   - They are here now.
   - I can go any time.
   - Here is your apple.
   - I want ham, not chicken.
   - Won't you go in?

3. Select five to ten categories of words that interest you. Use the Part Of Speech Sort in the manual to find three additional words in each category. Write the words you have chosen along with the Word Icon for each.

Chart of *Unity* 128 Version Vocabulary Classes

	# of vocab. entries	List of entries	Examples to demonstrate	New words looked up	Word Icon
Adjectives	187	big different pretty	ELEPHANT + ADJ ZEBRA + ADJ RAINBOW + ADJ		
Adverbs	137	here now very	ADVERB + REMEMBER ADVERB + BOY ADVERB + MUSIC		
Conjunctions	16	because but if	CONJ + LOVE CONJ + BED CONJ + TV		
Contractions	28	she'd she'll she's	SHE + VERB+ED SHE + VERB+ING SHE + VERB		
Indefinite Pronouns	34	anyone anything any time	APPLE + SUN APPLE + TRUCK APPLE + WATCH		
Interjections	38	okay thank you you're welcome	INTERJ + THMBS UP INTERJ + FLOWERS INTERJ + YORK		
Nouns: Accessories	9	earring bracelet necklace	SUIT + OPEN + EAR SUIT + OPEN + RETURN SUIT + OPEN + FLOWERS		

	# of vocab. entries	List of entries	Examples to demonstrate	New words looked up	Word Icon
Nouns: Animal Homes	5	aquarium doghouse (US)/ kennel (UK) nest	ZEBRA + HOUSE + ISLAND ZEBRA + HOUSE + DOG ZEBRA + HOUSE + HOUSE		
Nouns: Art Supplies	18	crayon paper clip pen	RAINBOW + RAINBOW + RAINBOW RAINBOW + RAINBOW + MEDICAL RAINBOW + RAINBOW + NAME		
Nouns: Assistive Technologies	12	glasses stander walker	CHAIR + CHAIR + EYE CHAIR + CHAIR + POLICE CHAIR + CHAIR + SHOE		
Nouns: Baby Animals	11	calf duckling puppy	ZEBRA + LOVE + NIGHT ZEBRA + LOVE + UMBRELLA ZEBRA + LOVE + DOG		
Nouns: Books	18	magazine newspaper story	BOOK + BOOK + WANTED BOOK + BOOK + DOG BOOK + BOOK + YORK		
Nouns: Buildings	32	grocery shop(UK)/grocery store(US) library school	YORK + YORK + APPLE YORK + YORK + BOOK YORK + YORK + KNOW		
Nouns: Cereals and Grains	9	cereal toast waffle	APPLE + MORNING + MORNING APPLE + MORNING + FROG APPLE + MORNING + STOP		
Nouns: Classes	13	geography music reading	KNOW + KNOW + ISLAND KNOW + KNOW + MUSIC KNOW + KNOW + BOOK		

	# of vocab. entries	List of entries	Examples to demonstrate	New words looked up	Word Icon
Nouns: Clothing	28	coat dress pants	SUIT + SUIT + SUIT SUIT + SUIT + MASKS SUIT + SUIT + PEOPLE		
Nouns: Communica-tion Devices	7	AlphaTalker DeltaTalker Liberator	CHAIR + PHONE + APPLE CHAIR + PHONE + DICE CHAIR + PHONE + COMPUTER		
Nouns: Communica-tion Technology	7	auto spell icon prediction Minspeak	PHONE + COMPUTER + STOP PHONE + COMPUTER + THINK PHONE + COMPUTER + OPEN		
Nouns: Condiments	13	honey jam(UK)/ jelly(US) mustard	APPLE + KITCHEN + QUEENBEE APPLE + KITCHEN + APPLE APPLE + KITCHEN + DOG		
Nouns: Days	7	Monday Sunday Tuesday	TIME + SUN + HAMMER TIME + SUN + SUN TIME + SUN + SCALES		
Nouns: Desserts/ Puddings	9	cupcake doughnut ice cream	APPLE +THMBS UP + KNOW APPLE + THMBS UP + SPACE APPLE + THMBS UP + MOUNTAIN		
Nouns: Drinks	13	coffee juice water	JUICE + JUICE + MORNING JUICE + JUICE + JUICE JUICE + JUICE + ISLAND		
Nouns: External/ Internal Body Parts	45	brain hair shoulder	BOY + X-RAY + THINK BOY + BOY + GIRL BOY + BOY + BOY		

	# of vocab. entries	List of entries	Examples to demonstrate	New words looked up	Word Icon
Nouns: Family Members	27	aunt grandmother stepmother	FAMILY + PEOPLE + LOVE FAMILY + TIME + LOVE FAMILY + BOY + LOVE		
Nouns: Farm Animals	9	cow duck sheep	ZEBRA + APPLE + NIGHT ZEBRA + APPLE + UMBRELLA ZEBRA + APPLE + SUIT		
Nouns: Fruits	18	apple banana grape	APPLE + APPLE + APPLE APPLE + APPLE + NIGHT APPLE + APPLE + PEOPLE		
Nouns: Furniture	13	bed chair desk	HOUSE + BED + BED HOUSE + BED + CHAIR HOUSE + BED + KNOW		
Nouns: Holidays	17	Passover Labor Day (US)/ May Day (UK) Martin Luther King Day	GOD + GOD + HOUSE GOD + GOD + HAMMER GOD + GOD + PEOPLE		
Nouns: Insects	11	butterfly grasshopper spider	ZEBRA + QUEENBEE + FLOWERS ZEBRA + QUEENBEE + FROG ZEBRA + QUEENBEE + GIRL		
Nouns: Kitchen Items	16	mug spoon straw	HOUSE + KITCHEN + THMBS UP HOUSE + KITCHEN + RETURN HOUSE + KITCHEN + JUICE		
Nouns: Linens	12	blanket napkin towel	HOUSE + LOVE + LOVE HOUSE + LOVE + APPLE HOUSE + LOVE + CACTUS		

	# of vocab. entries	List of entries	Examples to demonstrate	New words looked up	Word Icon
Nouns: Large Appliances	13	cooker (UK)/ stove (US) microwave refrigerator	HOUSE + VOLT + KITCHEN HOUSE + VOLT + VOLT HOUSE + VOLT + OPEN		
Nouns: Meals	6	breakfast lunch supper	WATCH + APPLE + MORNING WATCH + APPLE + THINK WATCH + APPLE + NIGHT		
Nouns: Meats	14	bologna chicken ham	APPLE + SCALES + SPACE APPLE + SCALES + MORNING APPLE + SCALES + MASKS		
Nouns: Mexican Food	7	nacho salsa taco	APPLE + CACTUS + TRIANGLE APPLE + CACTUS + STOP APPLE + CACTUS + MORNING		
Nouns: Money	6	dollar (US)/ pound (UK) pence (UK)/ penny (US) quarter	MONEY + MONEY + MONEY MONEY + MONEY + SUN MONEY + MONEY + NIGHT		
Nouns: Months	12	August March November	TIME + GOD + BOY TIME + GOD + SCALES TIME + GOD + DICE		
Nouns: Musical Instruments	9	cymbal drum piano	MUSIC + MUSIC + EAR MUSIC + MUSIC + HAMMER MUSIC + MUSIC + ZEBRA		

	# of vocab. entries	List of entries	Examples to demonstrate	New words looked up	Word Icon
Nouns: Nature	12	mountain sunrise tree	MOUNTAIN + MOUNTAIN + MOUNTAIN MOUNTAIN + MOUNTAIN + MORNING MOUNTAIN + MOUNTAIN + HOUSE		
Nouns: Occupations	25	bus driver dentist farmer	POLICE + POLICE + PEOPLE POLICE + POLICE + DOG POLICE + POLICE + APPLE		
Nouns: Parts of Animals	13	feather paw whisker	ZEBRA + TRIANGLE + SPACE ZEBRA + TRIANGLE + REMEMBER ZEBRA + TRIANGLE + DOG		
Nouns: Parts of Assistive Technology	9	laptray headrest strap	CHAIR + TRIANGLE + LOVE CHAIR + TRIANGLE + THINK CHAIR + TRIANGLE + KNOT		
Nouns: Parts of Buildings	31	door elevator(US)/ lift(UK) floor	YORK + TRIANGLE + FLOWERS YORK + TRIANGLE + CHAIR YORK + TRIANGLE + BED		
Nouns: Pasta	13	macaroni noodle shell	APPLE + MEDICAL + BATH APPLE + MEDICAL + TV APPLE + MEDICAL + SNAIL		

	# of vocab. entries	List of entries	Examples to demonstrate	New words looked up	Word Icon
Nouns: People	14	baby neighbor person	PEOPLE + LOVE + NOUN PEOPLE + HOUSE + NOUN PEOPLE + NOUN		
Nouns: Pets	8	cat dog hamster	ZEBRA + DOG + BED ZEBRA + DOG + DOG ZEBRA + DOG + RETURN		
Nouns: Places (Building-Related)	18	airport playground university	ISLAND + YORK + SPACE ISLAND + YORK + DICE ISLAND + YORK + KNOW		
Nouns: Places (Water-Related)	9	beach lake pond	ISLAND + ISLAND + SUN ISLAND + ISLAND + BATH ISLAND + ISLAND + JUICE		
Nouns: Roads	6	driveway highway (US)/ motorway (UK) street	TRUCK + EXIT + HOUSE TRUCK + EXIT + TRUCK TRUCK + EXIT + EXIT		
Nouns: Rooms	18	bathroom bedroom kitchen	HOUSE + HOUSE + BATH HOUSE + HOUSE + BED HOUSE + HOUSE + KITCHEN		
Nouns: Seasons	4	spring summer winter	TIME + MOUNTAIN + FLOWERS TIME + MOUNTAIN + SUN TIME + MOUNTAIN + MOUNTAIN		
Nouns: Segments of Time	4	hour minute second	WATCH + WATCH + TIME WATCH + WATCH + REMEMBER WATCH + WATCH + SPACE		

	# of vocab. entries	List of entries	Examples to demonstrate	New words looked up	Word Icon
Nouns: Shapes	9	circle square triangle	TRIANGLE + TRIANGLE + WATCH TRIANGLE + TRIANGLE + TV TRIANGLE + TRIANGLE + TRIANGLE		
Nouns: Small Appliances	17	iron telephone radio	HOUSE + PHONE + SUIT HOUSE + PHONE + PHONE HOUSE + PHONE + EAR		
Nouns: Snacks	8	cracker popcorn pretzel	APPLE + WATCH + STOP APPLE + WATCH + OPEN APPLE + WATCH + MEDICAL		
Nouns: Sports	16	football swimming wrestling	SHOE + SHOE + SHOE SHOE + SHOE + BOY SHOE + SHOE + ELEPHANT		
Nouns: Time of Day	5	afternoon night morning	TIME + SUN + CACTUS TIME + SUN + NIGHT TIME + SUN + MORNING		
Nouns: Toiletries	20	brush comb shampoo	HOUSE + BATH + GIRL HOUSE + BATH + BOY HOUSE + BATH + THINK		
Nouns: Toys	18	balloon bubble puppet	OPEN + OPEN + SUN OPEN + OPEN + KITCHEN OPEN + OPEN + FROG		
Nouns: Transporta-tion	14	car motorcycle lorry (UK)/ truck (US)	TRUCK + TRUCK + FAMILY TRUCK + TRUCK + POLICE TRUCK + TRUCK + TRUCK		

	# of vocab. entries	List of entries	Examples to demonstrate	New words looked up	Word Icon
Nouns: Vegetables	19	corn pea potato	APPLE + FLOWERS + EAR APPLE + FLOWERS + DICE APPLE + FLOWERS + HAMMER		
Nouns: Water Animals	4	fish frog snail	ZEBRA + ISLAND + ISLAND ZEBRA + ISLAND + FROG ZEBRA + ISLAND + SNAIL		
Nouns: Weather	15	ice thunder sun	UMBRELLA + UMBRELLA + JUICE UMBRELLA + UMBRELLA + EAR UMBRELLA + UMBRELLA + SUN		
Nouns: Zoo Animals	9	bear elephant giraffe	ZEBRA + ZEBRA + LOVE ZEBRA + ZEBRA + ELEPHANT ZEBRA + ZEBRA + KITCHEN		
Numbers: Cardinal	44	one three two	NUMBER + SUN NUMBER + SCALES NUMBER + HAMMER		
Numbers: Ordinal	43	first second third	NUMBER + NUMBER + SUN NUMBER + NUMBER + HAMMER NUMBER + NUMBER + SCALES		
Prepositions	44	in on under	PREP + OPEN PREP + CHAIR PREP + UMBRELLA		
Preverbs	68	can could will	PREVERB + JUICE PREVERB + TRUCK PREVERB + BOOK		
Pronouns: Objective	7	her me us	SHE + OBJ I + OBJ WE + OBJ		

	# of vocab. entries	List of entries	Examples to demonstrate	New words looked up	Word Icon
Pronouns: Possessive Adjective	7	her my our	SHE + POSS I + POSS WE + POSS		
Pronouns: Possessive Noun	7	hers mine ours	POSS + SHE POSS + I POSS + WE		
Pronouns: Reflexive	7	herself myself ourselves	OBJ + SHE OBJ + I OBJ + WE		
Pronouns: Subjective	7	I she we	I + I SHE + SHE WE + WE		
Questions	24	what when where	? WORD + TV ? WORD + WATCH ? WORD + ISLAND		
Verbs: Art-Related	7	color(US/ colour(UK) cut paint	RAINBOW + VERB RAINBOW + TIME + VERB RAINBOW + HOUSE + VERB		
Verbs: "Be"-Related	3	be become belong	QUEENBEE + VERB QUEENBEE + DOG + VERB QUEENBEE + FROG + VERB		
Verbs: Chest-Related	9	find hunt put	OPEN + ISLAND + VERB OPEN + EYE + VERB OPEN + VERB		
Verbs: Cleaning-Related	15	scrub sweep wash	BATH + PEOPLE + VERB BATH + NIGHT + VERB BATH + VERB		
Verbs: Communica-tion-Related	21	apologize communicate tell	PHONE + MASKS + VERB PHONE + FAMILY + VERB PHONE + LOVE + VERB		

	# of vocab. entries	List of entries	Examples to demonstrate	New words looked up	Word Icon
Verbs: Cooking-Related	9	bake mix pour	KITCHEN + KITCHEN + VERB KITCHEN + RAINBOW + VERB KITCHEN + JUICE + VERB		
Verbs: Destination-Related	5	enter leave send	EXIT + YORK + VERB EXIT + VERB EXIT + MONEY + VERB		
Verbs: Eating-Related	5	bite eat taste	APPLE + DOG + VERB APPLE + VERB APPLE + RAINBOW + VERB		
Verbs: Facially-Expressed Emotions	5	cry frown smile	SUN + LOVE + VERB SUN + THMBS DN + VERB SUN + THMBS UP + VERB		
Verbs: Feeling-Related	13	enjoy miss worry	MASKS + SUN + VERB MASKS + GIRL + VERB MASKS + LOVE + VERB		
Verbs: Fetching-Related	4	carry come receive	DOG + BOOK + VERB DOG + VERB DOG + KNOW + VERB		
Verbs: Game-Related	6	play score win	DICE + VERB DICE + WRONG + VERB DICE + THMBS UP + VERB		
Verbs: Hand-Related	6	point touch hold	REMEMBER + EXIT + VERB REMEMBER + PHONE + VERB REMEMBER + JUICE + VERB		
Verbs: Health-Related	9	ache help hurt	MEDICAL + EAR + VERB MEDICAL + VERB MEDICAL + HAMMER + VERB		

	# of vocab. entries	List of entries	Examples to demonstrate	New words looked up	Word Icon
Verbs: Hearing-Related	4	hear listen ring	EAR + VERB EAR + MUSIC + VERB EAR + PHONE + VERB		
Verbs: Home-Related	4	decorate live house	HOUSE + FLOWERS + VERB HOUSE + VERB HOUSE + HOUSE + VERB		
Verbs: Learning-Related	5	study learn teach	KNOW + BOOK + VERB KNOW + HAMMER + VERB KNOW + DOG + VERB		
Verbs : Math-Related	8	add divide multiply	WRONG + PREVERB + VERB WRONG + HE + VERB WRONG + SHE + VERB		
Verbs: Money-Related	9	buy check save	MONEY + MONEY + VERB MONEY + NAME + VERB MONEY + OPEN + VERB		
Verbs: Movement-Related	3	go hurry rush	FROG + VERB FROG + VOLT + VERB FROG + YORK + VERB		
Verbs: Permission-Related	3	allow consent let	POLICE + POLICE + VERB POLICE + NAME + VERB POLICE + VERB		
Verbs - Religious-Related	4	care celebrate make	GOD + PEOPLE + VERB GOD + GOD + VERB GOD + VERB		
Verbs: Sight-Related	4	look see watch	EYE + VERB EYE + EYE + VERB EYE + WATCH + VERB		
Verbs: Sleeping-Related	8	rest snore yawn	BED + MUSIC + VERB BED + TIME + VERB BED + SUN + VERB		

	# of vocab. entries	List of entries	Examples to demonstrate	New words looked up	Word Icon
Verbs: Sports-Related	19	kick run walk	SHOE + ZEBRA + VERB SHOE + VOLT + VERB SHOE + VERB		
Verbs: Thinking-Related	23	agree imagine wonder	THINK + THMBS UP + VERB THINK + RAINBOW + VERB THINK + NIGHT + VERB		
Verbs: Transporta-tion-Related	6	drive fly move	TRUCK + VERB TRUCK + SPACE + VERB TRUCK + TRUCK + VERB		
Verbs: Weather-Related	9	rain snow storm	UMBRELLA + UMBRELLA + VERB UMBRELLA + MOUNTAIN + VERB UMBRELLA + HOUSE + VERB		
Verbs: Work-Related	16	complete fix practice	HAMMER + KNOW + VERB HAMMER + TRUCK + VERB HAMMER + MUSIC + VERB		
Verbs: Writing-Related	6	copy spell write	NAME + DICE + VERB NAME + STOP + VERB NAME + VERB		

Review

Did you explore the Part of Speech Sort in the Vocabulary Sort and generate at least three more words in each category?

You've just completed the major part of your instruction.
Take a break! This is a lot of new information you've learned.
Thanks for sticking with it - WHEW!

Lesson 5: Commands and Functions

Information and Examples

All technology has **tools** (also called commands or functions) which optimize use of the technology. Each MAP has tools that optimize use of that MAP.

Look at your icon overlay and find each of the tools/functions written on the following charts. The charts show whether or not the tool is active just in Spell Mode, just in Minspeak Mode, or in both Spell and Minspeak Modes. It also states whether it is available in the DeltaTalker, Liberator, or both communication aids. The Pathfinder has an extra mode available — Computer Mode. Because there are more assignments in this device, a separate chart is available as Appendix K.

Key Assignments for Tools/Functions (128-LOC)

What's written on the icon overlay?	Where is it assigned?			What happens when activated?	Available in:		
	Spell	Minspeak	Both		DeltaTalker	Liberator	Both
			X	Moves the cursor up one row.			X
			X	Moves the cursor to the left one space.			X
			X	Moves the cursor to the right one space.			X
			X	Moves the cursor down one row.			X
CHAR/WORD			X	Allows you to choose whether you want the cursor to move through a message character by character or word by word.	X		
CLEAR DISPLAY			X	Clears messages from the display.			X
DELETE CHARACTER			X	Deletes the character to the left of the cursor.			X
DELETE ICON			X	Deletes the icon to the left of the cursor.			X
DELETE LAST SELECTION			X	Deletes the last icon or text you put on the display.			X
DELETE WORD			X	Deletes the word to the left of the cursor.			X
EDIT			X	Allows you to edit a stored message.	X		
EDIT MENU			X	Opens the EDIT Menu.		X	
EDIT MODE			X	Opens the EDIT Mode.		X	
ENTER			X	Tells the Liberator that you are finished selecting an icon sequence of a message you want to store or speak.			X
ERASE			X	Erases a stored message.	X		
ESCAPE			X	Removes you from the storing process.	X		
ESCAPE STORAGE			X	Removes you from the storing process.		X	
MINSERT			X	Allows you to put "blanks" into a message that you will fill in when speaking the message.		X	

What's written on the icon overlay?	Where is it assigned?			What happens when activated?	Available in:		
	Spell	Minspeak	Both		DeltaTalker	Liberator	Both
NOUN PL			X	Adds the plural for a word to the left of the cursor on the display whether you have recalled the word from an icon sequence or spelled it. This tool correctly pluralizes most words in the DeltaTalker. In the Liberator, this plural key only adds an "s."			X
OP/CL NOTEBOOK			X	Toggles between opening and closing a notebook.		X	
RETURN	X			Acts as a return key by moving the cursor to the beginning of the next row.			X
SHIFT			X	Capitalizes one letter.			X
SPACE (icon)	X			Moves the cursor to the right one space.			X
SPEAK DISPLAY			X	Speaks the message on the display.			X
SPEAK SENTENCE			X	Speaks the sentence to left of cursor.			X
SPEAK WORD			X	Speaks the word to left of cursor.			X
SPEECH ON/OFF			X	Toggles between turning the speech on and off.			X
SPELL/MINSPEAK			X	Toggles between Spell and Minspeak Modes.			X
STORE			X	Enters the storing mode.			X

Functions/Macros Stored Under Icon Sequences (128-LOC)

Function	Icon Sequence	Available in:		
		DeltaTalker	Liberator	Both
<del char>,<space>	COMMA			X
<del char>!<space><space><shift>	EXCLAMATION MARK			X
<del char>?<space><space><shift>	QUESTION MARK			X
<del char>.<space><space><shift>	PERIOD			X
RETURN	RETURN		X	
SPACE	SPACE			X
BATTERY STATUS	VOLT + VOLT + VOLT			X
DATE**	PHONE + TIME + SUN		X	
DICTIONARY MENU	COMPUTER + KNOT + STOP			X
FEEDBACK MENU	COMPUTER + KNOT + EYE			X
NOTEBOOK MENU	COMPUTER + KNOT + MUSIC		X	
CALCULATOR	COMPUTER + KNOT + TRIANGLE		X	
SCRATCH PAD	COMPUTER + KNOT + WRONG		X	
OUTPUT MENU	COMPUTER + KNOT + COMPUTER			X
PAPER FEED	NAME + EYE + THMBS UP		X	
PRINT	NAME + EYE + EYE		X	
PRINT DISPLAY	NAME + EYE + COMPUTER		X	
PRINT NOTEBOOK*	NAME + EYE + NOTEBOOK		X	
PRINT SENTENCE	NAME + EYE + SENTENCE		X	
REVIEW MENU VOCABULARY	COMPUTER + KNOT + REMEMBER			X
SPEECH MENU	COMPUTER + KNOT + PHONE			X
TIME**	PHONE + TIME + WATCH		X	

*Please note that PRINT NOTEBOOK is the only print function usable for printing text within a notebook. The other print functions (i.e., PRINT, PRINT DISPLAY, PRINT SENTENCE) are usable when you are printing text on your display.
**Please refer to your Liberator manual to set the date and time.

Activity Using your device, try using each function.

Teaching *Unity* 128 Version

Teaching *Unity* 128 Version Using *BUILLD*

The purpose of this section is to provide you, as the clinician, facilitator, or parent, with a few techniques for teaching *Unity* 128 Version. On the following pages you will find two lesson plans from a therapy starter kit designed expressly for teaching vocabulary in *Unity* 128 Version to children. The program is called *BUILLD: Bringing Unity into Language and Learning Development.* It was created and written by Linda S. Valot, a speech-language pathologist who is coordinating the design and development of therapy materials for PRC.

BUILLD includes a written curriculum that provides guidelines for teaching vocabulary, icons, and icon sequences. The curriculum guide contains two sections; a section for the facilitator, and a section containing lesson plans addressing various topics (i.e., having a party, colors, clothes, body parts, transportation, animals, shapes, fruit, weather, prepositions, and counting). Each lesson plan includes:

- an outcome,
- targeted skills for each unit,
- a list of words to be targeted,
- a list of items needed to perform the various activities,
- icon association activities, language processing activities,
- language experience activities, book activities,
- writing activities,
- generalization activities,
- customization ideas for adding vocabulary to *Unity* 128 Version,
- suggested adaptations to allow the child to participate in each activity more fully,
- suggested activities as “next steps,”
- songs and finger plays,
- additional books to read, and
- related software.

Additional components of *BUILLD* include the following:

- an enlarged overlay to hang on a wall at home or school,
- enlarged icons to attach to the enlarged overlay or use separately as flash cards,
- overlay masks to use with each lesson to reduce the number of visible icons,
- a penlight to provide visual cues, and
- a customizing sort for additions and deletions of vocabulary.

The techniques presented in *BUILLD* are only a few of the many approaches available for teaching vocabulary and language to a child beginning to learn *Unity* 128 Version. If you are a clinician, take a brief moment to look at the therapy materials on your shelf. Those materials used to strengthen the language of speaking children can also be used to teach the vocabulary in *Unity* 128 Version and develop the language of children using an augmentative communication device. Many different approaches are available to you and each approach has a time and place for its use. For instance, which approach you use depends highly on the client's chronological age, cognitive abilities, world knowledge, language processing abilities, pragmatic skills, and so on.

If you are a parent of a child using an augmentative communication device and *Unity* 128 Version, the experiences you provide your able-bodied children should be adapted and used with your child beginning to learn *Unity* 128 Version. These experiences provide the necessary background and opportunities for learning vocabulary and using it to communicate.

It is hoped that after you read this section, you will merge the ideas presented in *BUILLD* with your own favorite therapy approaches and style of teaching. If you like what you see in these lesson plans, contact PRC for more information about *BUILLD*. Have fun!

UNIT 1: Having A Party (Introductions)

OUTCOME: *Students will communicate with others independently and effectively.*

UNIT SKILLS:
Make comments and use interjections appropriately
State the labels, functions and associations of items
Request attention, assistance and items
Use phrases to perform a variety of communicative functions

TARGETED WORDS

INTERJECTIONS: awesome, ha ha ha, please, thank you, ah, ouch, Happy Birthday, oops, sorry, boo, eek, surprise, you're welcome, yeah, hi

NOUNS: game, book, food, beverage, present

PRONOUNS: I, you, it, my, your

VERBS: want, need, like, do, can, turn, help, stop, play, read, eat, drink, open, win, lose, cheat

SINGLE HITS: yes, no, not, a, the, to

PRONOUN PHRASES: I want, I like, I need, I do, I can

ITEMS NEEDED

- enlarged overlay and icons
- overlay mask (optional)
- pictures or objects representing targeted words
- video or display of fireworks
- sparklers (under adult supervision)
- party crackers
- Super String
- party items:
  - -hats
  - -plates
  - -napkins
  - -cake
  - -candles
  - -ice cream
  - -juice
  - -games
  - -balloons
  - -presents
- *What Do You Say?* (Wetzel, 1993) (not included with *Unity* 128 Version)

ICON ASSOCIATION ACTIVITY

- Introduce the paradigm for nouns and verbs.

  Use an Action Man puppet or the enlarged } icon to show that an icon paired with } produces an action word.

  Use a cupboard or enlarged α icon to show that an icon paired with α produces a thing, noting that things go in the cupboard.

- Some nouns and verbs use the same first icon and differ in the grammar label only. For example,

  game = δ + α play = δ + }

  book = 9 + α read = 9 + }

  food = A + α eat = A + }

  beverage = ϑ + α drink = ϑ + }

  Using enlarged icons representing the targeted words and grammar labels, prompt students to recall each noun and verb using the following prompts:

  -What is this thing? (nouns)
  -What does Action Man do with a ___? (verbs)

  For example, present the enlarged 9 icon and ask "What is this thing?" and "What does Action Man do with a book?"

- Introduce interjections using enlarged icons for

and each targeted word. Show pictures or videos of fireworks or go to an actual fireworks display. Or, light sparklers, pop party crackers or shoot Super String.

  Discuss the idea that fireworks explode, pop up, make people say "ooh" and "ah" and sometimes startle them. Compare this to interjections; that is, interjections sometimes "pop up" in conversation, surprise people and make people go "ooh" and "ah" or laugh.

LANGUAGE PROCESSING ACTIVITY

- Use the Action Man puppet and the cupboard, along with enlarged icons or actual objects. Perform actions with the puppet to emphasize the concept of verbs (i.e., verbs are actions). Put items into the cupboard to emphasize the concept of nouns (i.e., you put things in a cupboard).

  Prompt students to label items and state functions. Sample prompts are listed below:

  -What does Action Man do with an apple?
  -What does Action Man do with a book?
  -What does Action Man do with a chair?
  -Name three things.
  -Which things should we put in the cupboard?
  -Which things should we take out of the cupboard?

- Introduce additional verbs. Present any of the primary icons and ask, "What does Action Man do with a ___?"

  Don't expect students to memorize *all* verbs, but rather, to learn the concept of verbs and the motor pattern required to produce them (i.e., word icon up to VERB icon).

  Make this practice more fun and challenging by encouraging students to race against the clock or other students to retrieve the correct word.

  Encourage students to use interjections while playing (e.g., the winner can say "awesome" and the loser can say "boo").

LANGUAGE EXPERIENCE ACTIVITY

- Have a party to celebrate a birthday or other special occasion using typical or adapted games and activities. Put a sparkling candle on a cake or cupcakes to reinforce the concept of interjections.

  During party activities, prompt students to use targeted vocabulary to make choices, comment and surprise people. Sample words and phrases students might say are listed below:

-I want to eat	-your turn
-I want to play	-I win
-play a game	-yeah
-read a book	-awesome
-open present	-boo
-I want help	-you cheat
-I like it	-Happy Birthday
-do you	-thank you
-my turn	-surprise

BOOK ACTIVITY

- Read a book that contains interjections such as *What Do You Say?* Encourage students to state the appropriate interjection when you read the question. Some students will eventually be able to read the book word by word.

- Read any action-filled book and encourage students to use interjections as appropriate. Also, encourage students to use verbs and nouns they have learned (e.g., “read book”).

WRITTEN ACTIVITY

- Write invitations to the party. Students can write and draw manually or use a computer with writing and drawing software.

- Make a book that talks about what you did at the party (e.g., eat cake, drink juice, play game, read book, open presents). Paste photographs into the book and help students write the words next to them.

- Write thank you notes to party guests.

GENERALIZATION ACTIVITIES

- Encourage students to use targeted words throughout the day. For example, they can:

  -make requests or choices (e.g., "I want ___"),
  -gain attention (e.g., "Hi ___ "),
  -scare someone (e.g., "boo," "eek") and
  -sing or play songs.

CUSTOMIZATION SUGGESTIONS

- Add names of students, their family members and other people who are important to them. Use the following example paradigms:

-Daddy = N + N + Φ

NAME = Writing-related words; NAME = Names; DADDY is in the FAMILY.

-Mommy = N + N + Λ

NAME = Writing-related words; NAME = Names; MOMMY LOVEs the baby.

-Teacher's name = N + N + 0

NAME = Writing-related words; NAME = Names; (TEACHER'S NAME) works at a school (KNOW).

-Speech-language pathologist/therapist's name =

NAME = Writing-related words; NAME = Names; (SPEECH-LANGUAGE PATHOLOGIST'S NAME) works on communication (PHONE) skills.

-Occupational therapist's name =

NAME = Writing-related words; NAME = Names; (OCCUPATIONAL THERAPIST'S NAME) prepares you to return to work (HAMMER).

-Physical therapist's name = N+ N+ 7

NAME = Writing-related words; NAME = Names; (PHYSICAL THERAPIST'S NAME) can help develop walking (SHOE) skills.

-Friend's name = N+ N+ 1

NAME = Writing-related words; NAME = Names; (FRIEND'S NAME) laughs (SUN) a lot.

-Friend's name = N+ N+ Θ

NAME = Writing-related words; NAME = Names; (FRIEND'S NAME) teases (QUEENBEE) you frequently.

- Add additional interjections as appropriate (e.g., hey, ooh, gross, na na na na boo boo). Use the

icon, followed by an icon which represents the word(s).

- Don't forget to use the Customized Vocabulary Sort to look up words and document your customizations!

ADAPTATIONS

- Physical Difficulties - Blow out birthday candles using a switch-operated fan (Burkhart, 1993).

- Limited Abilities - Introduce a small number of words. Prompt students to use single words and short, general phrases repeatedly across activities (e.g., "eat," "play," "want more," "want ___").

- Greater Abilities - Introduce a larger set of words. Prompt students to combine words across activities (e.g., "I want ____ ," "my turn," "your turn").

NEXT STEPS

- Explore additional verbs, nouns and interjections that may be especially motivating (e.g., favorite foods and toys).

SONGS & FINGER PLAYS

- "Birthday Cake" (Cole & Calmenson, 1991)
- "Happy Birthday to You" (Simon, 1985)
- "I Want More" (Musselwhite, 1985)
- "The More We Get Together" (Raffi, 1976)
- "Willoughby Wallaby Woo" (Raffi, 1976)

ADDITIONAL BOOKS

- *Birthday Monsters* (Boynton, 1993)
- *Storytime* (King-DeBaun, 1990)
- *The Berenstain Bears and Too Much Birthday* (Berenstain, 1986)
- *The Birthday Cake* (Van der Meer, 1992)
- *The Secret Birthday Message* (Carle, 1986)

RELATED SOFTWARE

- Bailey's Book House (Edmark, 1993)
- Print Shop Ensemble (Broderbund, 1995)

UNIT 3: Dressing Up (Clothing)

OUTCOME: Students will communicate with others independently and effectively.

UNIT SKILLS:
Sort and label clothing items
State functions and associations of clothing items
Describe and make comments about clothing
Request attention, assistance and items
Use phrases to perform a variety of communicative functions

TARGETED WORDS	ADJECTIVES: more, big, little, red, yellow, green, blue, orange, white, pretty INTERJECTIONS: awesome, ha ha ha, please, thank you, yuck, oops NOUNS: shirt, pants, shoe, sock, dress, pajamas, coat, mitten, hat, clothing PREPOSITIONS: on, off PRONOUNS: I, you, it, my, your VERBS: want, need, like, do, turn, help, stop, put, take, is, wear SINGLE HITS: yes, no, not, a, the, to PRONOUN PHRASES: I want, I like, I need, I do, I can, do I, can I, I don't want, I don't like, I don't need, I don't, I can't, do you, can you, do you want, do you like
ITEMS NEEDED	• enlarged overlay and icons • overlay mask (optional) • clothing or pictures of clothing • clothing-related toys -dolls and doll clothing -paper dolls or Colorforms -clothing -puzzles • *Blue Hat, Green Hat* (Boynton, 1984) (not included with *Unity* 128 Version) • *My First Look at Colours* (Yorke, 1996) (included with *Unity* 128 Version in UK only)

ICON ASSOCIATION ACTIVITY

- Introduce the paradigm for clothing. Note the clothing in the 4 icon (i.e., suit, coat, shirt, tie). General clothing begins with 4 + 4, followed by the icon to represent the specific item.

  Prompt students to label clothing they are wearing. Use a doll or paper doll and prompt students to label and request items to put on it.

LANGUAGE PROCESSING ACTIVITY

- Sort laundry with students, using actual clothing or doll clothing.

  Prompt students to label clothing items, state which color pile the items go in and label the items in each pile after sorting them. Sample prompts are listed below:

  -What's this one?
  -What do you do with pants?
  -What do you do with shoes?
  -What goes with a coat?
  -What goes with shoes?
  -What color pile does this go in?
  -Name three articles of clothing.
  -What are pants, shirts and socks called?
  -How are pants and a shirt alike?
  -How are pants and a shirt different?
  -What is clothing?

LANGUAGE EXPERIENCE ACTIVITY

- Play dress-up. Use several types of each clothing item (e.g., fireman's hat, baseball cap, policeman's hat) to promote generalization and provide exposure to community helpers.

  Encourage students to request preferred items, including the preferred color (e.g., "I want pants," "blue shirt").

  Pick up the wrong item when students request something and wait for them to correct you.

Encourage students to comment on outfits and whether they match. Possible words and phrases students might say are listed below:

-oops	-I want a blue shirt
-awesome	-I need help
-yuck	-I like it
-pretty	-not
-my turn	-do you like it
-your turn	-I want more
-I want a hat	-I want to stop

BOOK ACTIVITY

- Read the book *My First Look at Colours.* Prompt students to label the articles of clothing. Encourage them to combine words (e.g., "red socks").
- Read a book such as *Blue Hat, Green Hat.* This book combines color words with clothing and provides lots of practice in a fun manner (e.g., "Blue shirt, red shirt, green shirt, oops"). Some students will be able to read it word by word.

WRITTEN ACTIVITY

- Make a book or "wish list"of clothing. Help students cut out pictures of clothing they like from old catalogues. Point out the printed names of items in the catalogue and help students write the names of items in their books.

GENERALIZATION ACTIVITIES

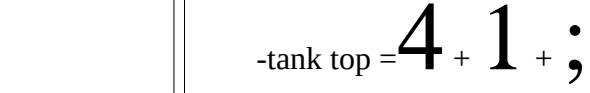
- Encourage students to request clothes or comment on them while dressing. Students can make comments such as what they want to wear or put on first (e.g., "green socks," "put on socks").
- Encourage students to help sort real laundry, prompting them to label the items while sorting.
- Go shopping for clothing, prompting students to comment on favorite items.

CUSTOMIZATION SUGGESTIONS

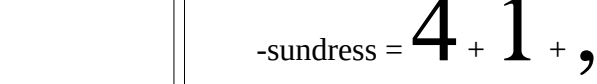
- Not all specialized and seasonal items are included in *Unity* 128 Version (e.g., sports uniforms, formal wear, summer clothing, winter clothing). Possible words to add and suggested paradigms are listed below:

-bikini =

SUIT = Clothing-related words; SUN = Summer; Many people wear BIKINIs at the beach (SUN).

-tank top = 

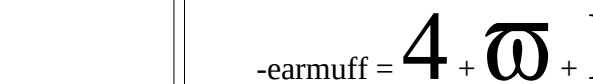
SUIT = Clothing-related words; SUN = Summer; The TRUCK is a tank (TANK TOP).

-sundress = 

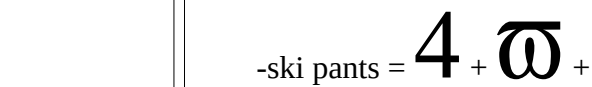
SUIT = Clothing-related words; SUN = Summer; You dress up (MASKS) in a SUNDRESS.

-stocking cap =

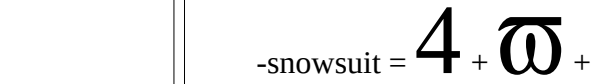
SUIT = Clothing-related words; MOUNTAIN = Winter; The MUSIC note looks like a stocking (STOCKING CAP).

-earmuff = 

SUIT = Clothing-related words; MOUNTAIN = Winter; You wear EARMUFFs to keep your EARs warm.

-ski pants = 

SUIT = Clothing-related words; MOUNTAIN = Winter; You wear SKI PANTS to go skiing down the MOUNTAIN.

-snowsuit = 

SUIT = Clothing-related words; MOUNTAIN = Winter; A SNOWSUIT is a coat (SUIT) and pants all in one.

ADAPTATIONS

- Physical Difficulties - Adapt electrical scissors so they can be activated by a single switch (Burkhart, 1993).
- Limited Abilities - Use a small number of general clothing items. Prompt students to use single words and short phrases (e.g., “pants,” “I want it”).
- Greater Abilities - Use a larger number of clothing items. Prompt students to use phrases or sentences to describe and request items (e.g., “I want blue socks,” “I don’t like it”).

NEXT STEPS

- Explore additional specialized or seasonal items (e.g., sports uniforms).

SONGS & FINGER PLAYS

- “Get The Hat” (Musselwhite, 1985)
- “Mary Wore Her Red Dress” (Raffi, 1987)
- “The Mulberry Bush” (Simon, 1985)
- “What Are You Wearing?” (Beall & Nipp, 1979)

ADDITIONAL BOOKS

- *Animals Should Definitely Not Wear Clothing* (Barret, 1970)
- *Mary Wore Her Red Dress and Henry Wore His Green Sneakers* (Peek, 1985)

RELATED SOFTWARE

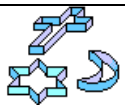
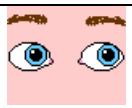
- Circletime Tales (Don Johnston, 1993)
- Storytime Tales (Don Johnston, 1993)

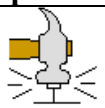
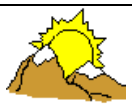
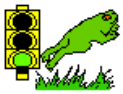
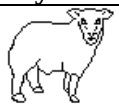
Unity 32 Version Single-Hit Vocabulary

Core Communication Vocabulary
Unity 32 Single Hit

Pathfinder Unity 32 Single Hit is a single word vocabulary based on a core of 27 words. When the ONE HITS Activity

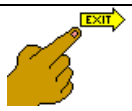
is used, six more core words are available in the Activity Row. Additional core verbs with are available in the CATEGORY Activity.

	thank you	 make	 look	cook	color	stop	CATEGORY

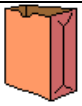
	my		please	that	to	word? what	
I	play	like	 work	 get	read	more	help
you	want	come	do	 go	put	good	
 it	not	eat	home	drink	feel	bad	

Sentence Completion: After a core word is chosen, a list of sentence completion options is displayed in the Activity Row. For Example:

go:

•	About GO	a walk	with you	away	 there	outside	MORE

put:

•	About PUT	it away	it on	 in bag	on table	in backpack	MORE

feel:

•	About FEEL	happy	sad	sick	hungry	thirsty	MORE

play:

•	About PLAY	with me	with you	a game	sports	cards	MORE

About Icon: Activating the 'About' icon explains the rational for the icon used to represent that word. For example:

About GO: The frog is Going. A green light means GO.
About PUT: You can PUT things in a chest.
About FEEL: The masks show happy and sad FEELings.
About PLAY: You can use dice to PLAY a game.

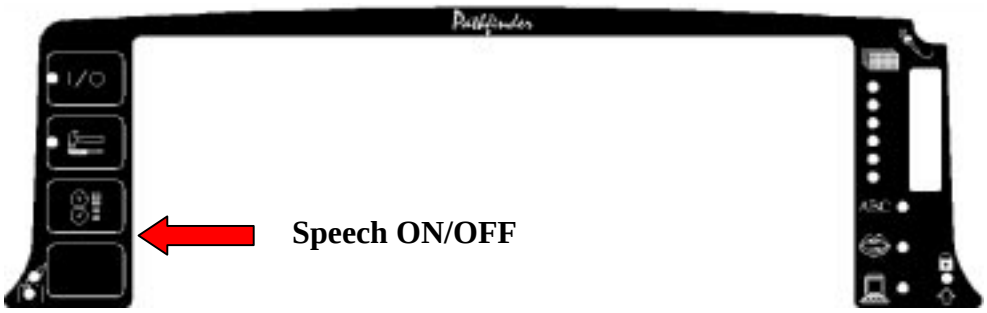
Customizing Note: When the rationales (i.e. About GO) are no longer needed, they can be erased and an additional Sentence Completion option can be added (i.e. "to the library").

Customizing Note: The word "open" can be substituted for "put" if desired. The Sentence Completion Activity is already set up.

Spell Mode: A B C SPELL

To get into Spell Mode, choose the UNITY Activity UNITY and then select the SPELL icon A B C SPELL .

To return to Minspeak Mode (Word Mode), activate CHOOSE ACTIVITY/MINSPEAK icon MINSPEAK CHOOSE ACTIVITY in the upper right corner of the core overlay.



Speech ON/OFF

Speech ON/OFF: The User Defined Key has been assigned the SPEECH ON/OFF tool.

Additional Tools: The UNITY and TOOLS activities contain additional useful tools such as…

Speak All
Plural
Speech Volume Up (LOUDER)
Speech Volume Down (QUIETER)
Beep ON/OFF (BEEP +/-)
Calculator

Practice Sentences

Core only: The following sentences do not use the Activity Row. All of the words are on the core overlay.

1. I like that.
2. I do not like that.
3. I want help.
4. I do not want help.
5. I want more.
6. I do not want more.
7. Please get that.
8. Do you want to play?
9. Please read that.
10. Do not read that.
11. I feel good.
12. I do not feel good.
13. I feel bad.
14. What do you want?
15. Do you want to play?

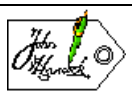
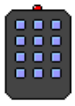
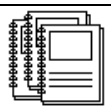
Core plus Activity Row: To do the following sentences, begin with a core word on the static overlay and then choose one of the items in the Activity Row. Note that the portion of the sentence that is underlined will be found in the Activity Row.

1. Good morning.
2. I like sports.
3. Do you like sports?
4. Come with me.
5. Go for a walk.
6. Do the shopping.
7. My turn.
8. I feel thirsty.
9. What is that?
10. Please get my coat.
11. I want to listen to music.
    (NOTE: music contains the whole phrase "to listen to music")
12. I want to go with you.
13. Put it on the table.
14. I have homework.
    (NOTE: choose home, then find work in the Activity Row)
15. I need help with my wheelchair.
16. I think I will go to the mall.
    (NOTE: you will need to activate MORE to find mall.)
17. What can I do?
18. I like photography.
    (NOTE: use MORE to find photography)
19. Do you like horseback riding?
20. I need more time.

ONE HITS ACTIVITY: Activate the ONE HITS Activity and try these sentences. Notice that the words that are *italicized* will be found in the ONE HITS Activity. The words that are underlined are sentence completions in the Activity Row.

1. *Look* at this.
2. *Make* cookies.
3. I want to *make* a phone call.
4. *Stop* teasing.
5. I will *cook* dinner.

Activity Row: Single Hit

	GREETING	ME	 NAMES	WORD CUES	ONE HITS	SENTENCE	CATEGORY 1
 REMOTES	PF TOOLS	NUMBERS	ACCESS	 NOTEBOOKS	TIME	CIRCLE	FUN/GAMES
SCHOOL							

UNITY:

The UNITY Activity contains the Minspeak Period and Question Mark. They are used to speak the entire sentence. When generating spontaneous novel utterances, it might be helpful to have the UNITY Activity opened so there is quick access to the Minspeak Period and Question Mark as well as the Plural Function and Spell Mode.

.	?	SPEAK ALL	PLURAL	A B C SPELL	yes	no	CATEGORY

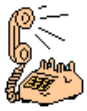
GREETING:

Hi!	What's Up	How you?	I'm fine	not good	Nice meet	Good-bye	MORE
Going							MORE

ME:

ME

Customize the ME Activity with your personal information.

name	home	 phone	birthday	age	interests	likes	MORE
dislikes							MORE

NAMES:

NAMES

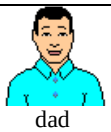
The NAMES Activity can be used to store a few or many names. This Activity has been set up with two sub-categories for names. More subcategories can be added or all sub-categories can be eliminated.

SCHOOL NM	FAMILY NM		Daryl	Madison	Tyler	Shanda	MORE

SCHOOL NAMES:

							MORE

FAMILY NAMES:

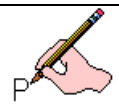
 dad	mom						MORE

WORD CUES

The **WORD CUES** Activity was designed for the individual with limited language. This Activity is can be used to cue the communication partner as to the topic of conversation. It limits the need for the communication partner to "play" twenty questions to determine the topic reference.

Individuals who are able to identify initial sounds may select "starts with" and then select any letter from the static overlay.

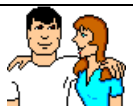
Word Cues

It is…	person is	place is	thing is	happened		 starts with	
It is	The person is	The place is	The thing is	It happened		It starts with	

It is…

	person	place	thing	event			
	a person.	a place.	a thing.	an event.			

Person is

person is		male	female	family	 a friend	at work	MORE
The person is		a male.	a female.	a family member.	a friend.	someone at work.	

at school	at church		HAIR			GO BACK	MORE
someone at school.	someone at church.		Set Activity: HAIR CUE				

HAIR CUES:

blonde	brunette	red	black	gray	bald		GO BACK
The person is blonde.	The person is a brunette.	The person has red hair.	The person has black hair.	The person has gray hair.	The person is bald.		

Place is

place is	here	different	inside	outside	near	far	MORE
The place is	Here.	In a different room.	Inside.	Outside.	Near here.	Far away.	

I lived	I visited	I want go				GO BACK	MORE
somewhere I lived.	somewhere I visited.	somewhere I want to go.					

Thing is

thing is		COLOR	to wear	bathroom	for cooking	for travel	MORE
The thing is		Set Activity: COLOR CUES	something to wear.	used in the bathroom.	used for cooking.	for travel.	

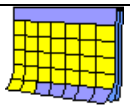
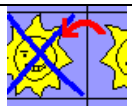
for shopping	for banking	for the pet	for fun			GO BACK	MORE
for shopping	for banking	for the pet.	for fun.				

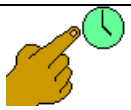
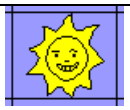
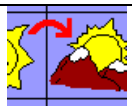
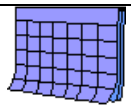
COLOR CUE;

red	orange	yellow	blue	green	purple	pink	MORE

black	gray	gold	brown	tan	tan	GO BACK	MORE

Happened

It happened		long ago	 short time	 yesterday	today		MORE
It happened.		a long time ago.	a short time ago.	yesterday.	today.		

It will happen		 soon	 today	 tomorrow	 in the future	GO BACK	MORE
It will happen.		soon	today	tomorrow	in the future		

ONE HITS:

The **ONE HITS** Activity adds additional high frequency words, increasing the core vocabulary to 33 single words.

•	thank you	make	look	cook	color	stop	CATEGORY

Sentence Completion: After a core word is chosen, a list of sentence completion options is displayed in the Activity Row. For example:

make:

•	About MAKE	sandwich	pudding	cookies	phone call	a picture	MORE

look:

•	About LOOK	at me	here	there	at this	at that	MORE

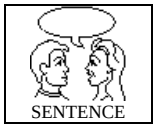
cook:

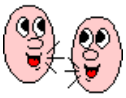
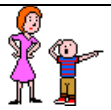
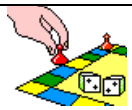
•	About COOK	breakfast	lunch	dinner	a snack		MORE

Customizing the Sentence Completions: Customize these activities to meet the needs and interests of the individual using this program. For example, what does that person like to make? What things does he / she like to cook?

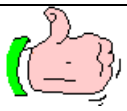
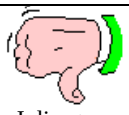
Customizing the Core Word Choices: There are a number of high frequency verbs that could have been included here. Other verbs may be substituted for these. For example, "talk, give, open, etc. Most of the high frequency verbs already have sentence completion activities set up. You will find them listed in Alphabetical order when you select MODIFY ACTIVITY.

SENTENCES SINGLE HIT:

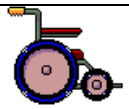


 COMMENT	WANTS	I DON'T	REPAIR	MEDICAL	FRIENDS	QUESTION	MORE
TECHNOLOGY	PATHFIND	PHONE	 TELLING	 PLAYING	JOKES		MORE

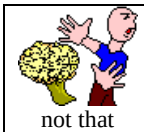
COMMENTS:

EXCUSE ME	interesting	Good idea	 I agree	 I disagree	think so	kidding	MORE
Excuse Me Macro:	That's interesting. Tell me more.	Good idea.	I agree.	I disagree.	I think so.	Just kidding.	

WANTS:

play game	 out chair	computer	watch TV				MORE
I want to play a game.	I want to get out of my chair.	I want to work on the computer.	I want to watch TV.				

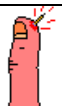
I DON'T:

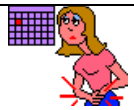
 not that	not want to	don't like	don't know	how to say	not alone		MORE
I don't want that.	I don't want to.	I don't like that.	I don't know.	I don't know how to say it with my Pathfinder.	I don't want to be alone.		

REPAIR:

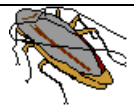
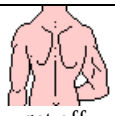
understand	not meant						MORE
Please let me know if you don't understand my voice.	That's not what I meant.						

MEDICAL:

need help	not well	tissue	get mom	 splinter	headache	dizzy	MORE
I need help.	I don't feel well.	I need a tissue.	Please get my mom.	I have a splinter.	I have a headache.	I feel dizzy.	

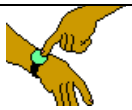
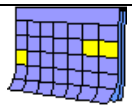
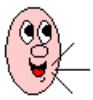
stomach ache	diarrhea	 cramps	itchy eye	blurry	seizure		MORE
I have a stomach ache.	I have diarrhea.	I have cramps.	My eye is itchy.	My vision is blurry.	I had a seizure.		

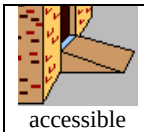
FRIENDS:

special	don't think	ridiculous	 Bug off!	who asked	that cool	 get off	MORE
Isn't that special	I don't think so.	That's ridiculous!	Bug off!	Who asked you?	Is that cool, or what?	Get off my back.	

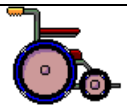
boring	so happy	you crazy	excuse me				MORE
This is so boring.	I am so happy.	You're crazy.	Excuse me.				

QUESTIONS:

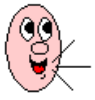
you doing	 you want	what do	secret	 weekend	 what say	busy?	MORE
What are you doing?	What do you want to do now?	What are we going to do?	Wanna hear a secret?	How was your weekend?	What did you say?	Are you busy right now?	

 accessible							MORE
Is it wheelchair accessible?							

TECHNOLOGY:

Pathfinder	charge	clean	 adjust				MORE
I use this Pathfinder communication aid to help me speak.	Please clean my device.	Please clean my device.	Please adjust my wheelchair.				

PATHFINDER:

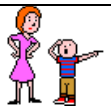
Pathfinder	 speak	understand					MORE
This is a Pathfinder communica-tion aid.	This device lets me speak like anyone else.	Please let me know if you don't understand my voice.					

PHONE:

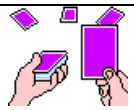
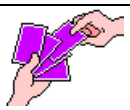
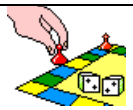
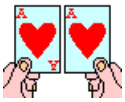
Hello	name	name		call me	come see	bye	MORE
Hello, this is …	My I talk to _____, please?	My I talk to _____, please?		Call me.	Come see me.	Guess I better go now. Bye.	

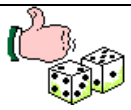
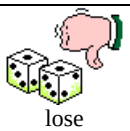
how you	family?	what do?		yes	no	don’tknow	MORE
How are you?	How's the family?	What have you been doing?		yes	no	I don't know.	

TELLING:

 tell on	hurt me	hit me	took mine	broke my	cheating		MORE
I'm gonna tell on you.	Someone hurt me.	Someone hit me.	Someone took something of mine.	Someone broke something of mine.	Someone's cheating.		

PLAYING:

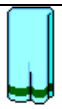
My turn	Your turn	 deal	 pick	roll	 move	 got match	MORE
My turn.	Your turn.	Deal the cards.	Pick a card.	Roll the dice.	Move the piece.	I got a match.	

Go fish	no cheat	 win	 lose		yes	no	MORE
Go fish.	No cheating.	win	lose		yes	no	

JOKES:

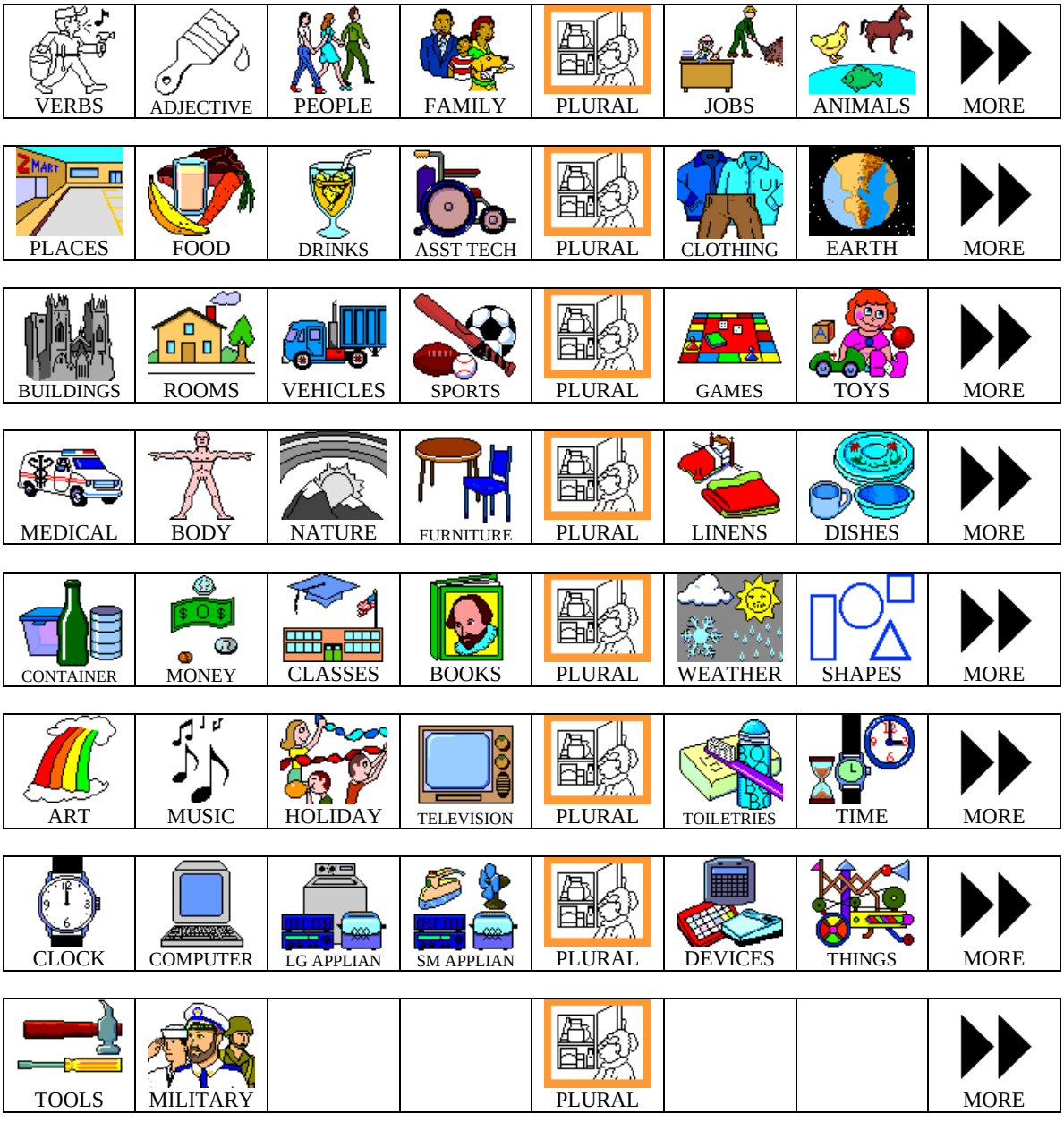
hear joke	good one	you tell	n't get it				MORE
Wanna hear a joke?	That's a good one.	You tell one.	I don't get it.		Why did Robin Hood rob from the rich? Because the poor didn't have any money.	What do you call a bull when it's sleeping. A bulldozer.	

cookie	snail	skunk	dirt	apple	bald	credit	MORE
Why did the cookie go to the doctor? He felt crummy!	Why did the snail paint an S on his car? He liked to hear people say, "Look at that little 'S' car go."	What did the judge say when the skunk walked in? Odor in the court.	What did the dirt say to the rain? If this keeps up, my name will be mud!	What kind of apple has a short temper? A crab apple.	What did the bald man say when he got a comb? I'll never part with it.	Why do people buy things with their credit cards? Because they get a charge out of it.	

elephants	football	 towel	mailman	pillow	Shakespea	teacher	MORE
Why do elephants have trunks? Because they don't have pockets to put things in.	What did the football say to the football player? I get a kick out of you.	What gets wetter the more it dries? A towel.	What happens when a mailman gets old. He loses his zip.	Why did the girl put sugar under her pillow? Because she wanted sweet dreams?	Why was William Shakespeare able to write so well? Because where there's a "Will" there's a way!	Why did the cross-eyed teacher quit? Because she couldn't control her pupils.	

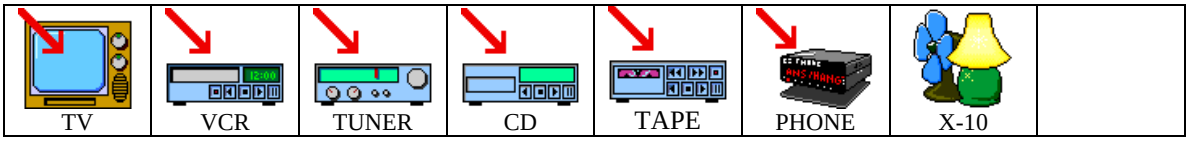
CATEGORY 1:

The CATEGORY Activity provides access to a large vocabulary of nouns, verbs, and adjectives. It is provided primarily for the individual to be able to give a single word, usually a noun, to cue a topic or explain what they want. It is not intended that the individual will be generating grammatically correct sentences using these words. If the individual is at the level where they need more words to generate intact sentences, they should probably be moving on to the Unity 32 Sequenced or Unity 128.



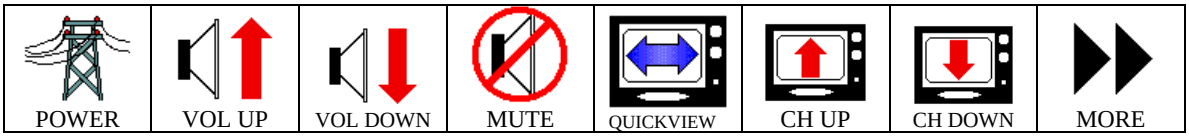
REMOTES:

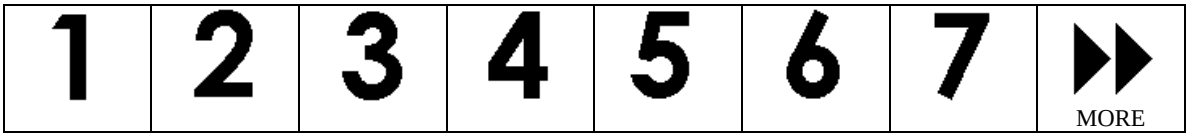
When you select the REMOTES Activity, you will see separate activities for various devices that can be run by remote control (ex: TV, VCR, etc.).

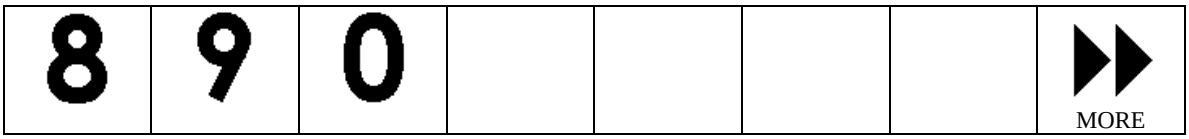


Infrared Signals: For all appliances except the EX Phone and X-10, you will have to teach the Pathfinder the signals. For complete instructions refer to your Pathfinder Operator's Manual.

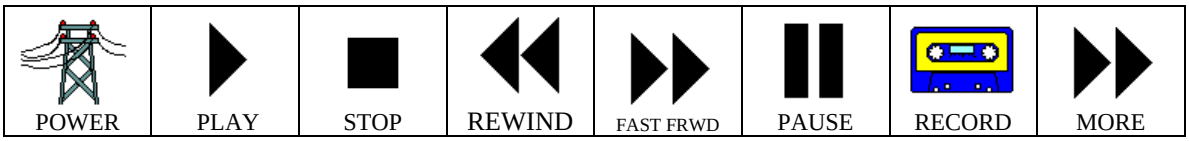
TV:

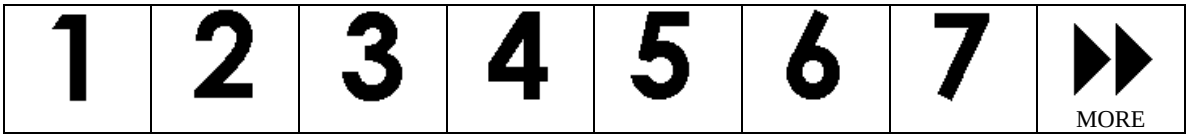


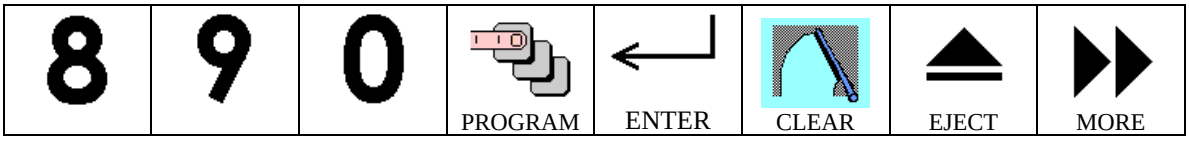




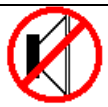
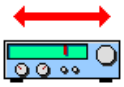
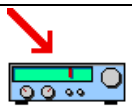
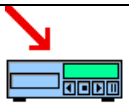
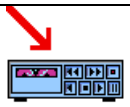
VCR:



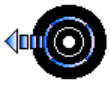
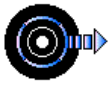




TUNER:

POWER	VOL UP	VOL DOWN	 MUTE	 SCAN	AM	FM	MORE
1	2	3	4	5	6	7	MORE
8	9	0	SEL VCR	 SEL TUNER	 SEL CD	 SEL TAPE	MORE

CD:

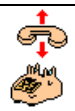
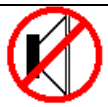
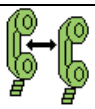
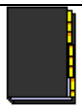
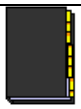
POWER	PLAY	STOP	 PREV TRACK	 NEXT TRACK	PREV DISK	NEXT DISK	MORE
1	2	3	4	5	6	7	MORE
8	9	0					MORE

TAPE:

POWER	PLAY	STOP	REWIND	FAST FRWD	PAUSE	REV PLAY	MORE
EJECT	RECORD						MORE

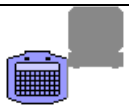
PHONE:

The EZ Phone is an infrared telephone that is available from APT Technology.

 ANS/HANG	VOL UP	VOL DOWN	 MUTE	REDIAL	 FLASH	IR COMM	MORE
1	ABC 2	DEF 3	GHI 4	JKL 5	MNO 6	PRS 7	MORE
TUV 8	WXY 9	OPER 0	 DIR 2	DIR 3	 DIR 4	DIR 5	MORE

X-10:

The **X-10** Activity is set up to control up to nine X-10 appliance modules. It allows you to turn on and off electrical appliances that are plugged into these modules.

LIGHT ON	LIGHT OFF	FAN ON	FAN OFF	RADIO ON	RADIO OFF		MORE
COMP ON	 COMP OFF	UC5 ON	UC5 OFF	UC6 OFF	UC6 OFF		MORE
UC7 ON	UC7 OFF	UC8 ON	UC8 OFF	UC9 OFF	UC9 OFF		MORE

PATHFINDER TOOLS:

PF TOOLS

SP ON/OFF	LOUDER	QUIETER	BEEP +/-	DATE	TIME	CALC	MORE
PRED on/off	CAPS LOCK	COMP ON	COMP OFF	VIEW ANGLE	PRINT	CALL	MORE

VIEW ANGLE:

	BRIGHTNESS	BRIGHTNESS		CONTRAST	CONTRAST		GO BACK

NUMBERS:

NUMBERS

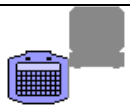
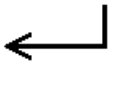
The numbers are stored without a space. This allows you to build any number you need (i.e. 12, 153, 1,278, 6.4). For numbers 1 to 9, activate SPACE.

0	1	2	3	4	5	SPACE	MORE
6	7	8	9	.	,	SPACE	MORE

Computer Access

The Computer Access Activity is comprised of four rows of computer access tools. They are arranged in order complexity from simple to complex.

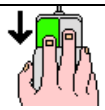
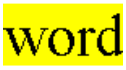
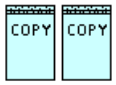
Row One contains the basic tools that will be used by most individuals. For some individuals doing simple word processing, this may be the only row needed. It allows them to turn the computer access ON or OFF, save, and print their work. If no other tools are needed, the MORE key can be deleted. If needed, the ARROWS can be moved to the first row. With TAB, SPACE, RETURN, and the ARROW keys, the individual can use many computer programs.

COMP ON	 COMP OFF	TAB	PRINT	SAVE	CANCEL	 OK/ENTER	MORE

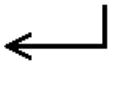
Row Two adds the ability to create a new document, change the font size, change the text (bold, italics, underline) and do spell check (FONT SIZE & EDIT). For individuals who need these functions and no more, you can delete rows three and four.

YES NO	DOCUMENT	CLOSE	FONT SIZE & EDIT	BOLD	ITALICS	UNDERLINE	MORE

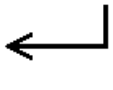
Row Three adds the tools needed to edit the text (highlight text, copy, cut, paste).

 CLICK	SELECT ALL	 HIGHLIGHT	 COPY	CUT	PASTE	ARROWS	MORE

Row Four gives access to all keyboard shortcuts via CONTROL (i.e. CONTROL + P = print) and the Functions (F keys) as well as web access and full mouse control.

START MENU	CONTROL	RESET	F KEYS	W.W.WEB	MOUSE	 OK/ENTER	MORE

SAVE:

CLICK			SAVE	CANCEL	 RETURN	DEL CHAR	GO BACK

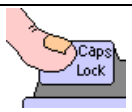
YES/NO:

	Y YES		N NO		X CANCEL		 GO BACK

DOCUMENT: CHANGE WINDOW toggles between any open documents.

		 NEW		CHANGE WINDOW			 GO BACK

FONT SIZE & EDIT:

ABC SPELL CK		 CAPS LOCK	A <FONT	A FONT>		UNDO	 GO BACK

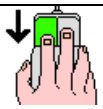
SPELL CK:

ABC SPELL CK	DROP DOWN	UP	 IGNORE	CHANGE	X CANCEL	RETURN	 GO BACK

HIGHLIGHT:

word WORD	a CHARA	UP	DOWN	a CHARA	word WORD	RETURN	 GO BACK

ARROWS:

 CLICK	 PAGE UP	LEFT	UP	DOWN	RIGHT	 PAGE DN	 GO BACK

START MENU:

 START MENU	LEFT	UP	DOWN	RIGHT	X CANCEL	RETURN	 GO BACK

PRINT:

			 PRINT		X CANCEL	OK/ENTER	 GO BACK

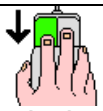
RESET:

CTRL ALT DELETE		END TASK	WAIT	SHUT DOWN	X CANCEL		GO BACK

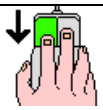
F KEYS:

ALT	1 F1	2 F2	3 F3	4 F4	5 F5	6 F6	MORE
7 F7	8 F8	9 F9	10 F10	11 F11	12 F12	GO BACK	MORE

WEB:

 CLICK	BACK	FORWARD	TAB	TAB	ARROWS	OK/ENTER	MORE
WEB SITES						GO BACK	MORE

ARROWS:

 CLICK	PAGE UP	LEFT	UP	DOWN	RIGHT	PAGE DN	GO BACK

WEB SITES:

BOOKMARKS FAVORITES	OPEN WWW.	Google GOOGLE	HOTBOT	eXc EXCITE	YAHOO! YAHOO	CLOSE	MORE
alta ALTTAVISTA	LYCOS LYCROS	NORTHERN	Closing The Gap CTG	PRC	CNBC	CLOSE	MORE
amazon AMAZON.COM	Ask ASK JEEVES				CLOSE	GO BACK	MORE

BOOKMARKS / FAVORITES:

BOOKMARK FAVORITES	LEFT	UP	DOWN	RIGHT	CLOSE	RETURN	GO BACK

WEB ABC:

SHIFT	@	/	\	.	_	DEL CHAR	MORE

~	www.	.com	.org	CANCEL	RETURN	GO BACK	MORE

MOUSE:

CLICK	DOUBLECK	RIGHT CK	F KEYS	LG MOUSE	SM MOUSE	MENUS	GO BACK

LG MOUSE:

UP LEFT	UP CENTER	UP RIGHT		MID LEFT	CENTER	MID RIGHT	MORE

DN LEFT	DN CENTER	DN RIGHT			GO TO SM	GO BACK	MORE

SM MOUSE:

CLICK	Lg Up Left	Up Up Left	Lg Up	Up Up Right	Lg Up Right		GO BACK

MENUS:

1st MENU	2nd MENU	3rd MENU	4th MENU	5th MENU	ARROWS	CANCEL	MORE

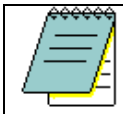
6th MENU	7th MENU	8th MENU	NUDGE LEFT	NUDGE RIGHT	RETURN	GO BACK	MORE

MENU ARROWS:

LEFT	UP 2	UP 1	DOWN 1	DOWN 2	RIGHT	OK/ENTER	GO BACK

Notebooks

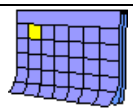
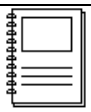
Twelve notebooks are already set up. Additional notebooks can be created as needed. When a notebook is chosen from this Activity, the NOTEBOOK TOOLS Activity automatically opens. The NOTEBOOK TOOLS Activity contains the editing tools needed for notebooks. If the CHOOSE ACTIVITY key is activated, the NOTEBOOK TOOLS Activity will close. It can be opened again by activating NOTEBOOK TOOLS.

Notebook 1	Notebook 2	Notebook 3	Notebook 4	Notebook 5	Notebook 6	NOTEBOOK TOOLS	MORE
 Notebook 6	Journal	Story	Lang Arts	Soc Studies	Science	NOTEBOOK TOOLS	MORE

NOTEBOOK TOOLS: There are three rows of notebook tools.

Row One: The tools on the first row are tools that most system operators can use. The date can be used to put the date in any notebook. This is especially useful for journal writing where the individual can add the date each day.

NOTE: Tools on the next two rows are more advanced. If the individual is not ready to use them, the MORE key can be removed from row 1. If at a later time, the individual is ready to use the more advanced tools, the MORE key can be reassigned. If the MORE key is removed, the PRINT NOTEBOOK tool can be moved to Row One.

.	?	 DATE	SPEAK NB	SPELL	HIDESHOW	 CLOSE NB	MORE

Row Two allows the individual to lock or unlock notebooks. It also gives access to the notebook menu, which allows full control of all notebook functions.

PRINT NB	VOICES	EDIT	ACCENT / PAUSE	LOCK/UN	NOTEBOOK MENU	GO BACK	MORE

Row Three contains a macro that will erase the contents of the notebook without erasing the notebook. This allows the notebooks to be reused. If the individual is not able to understand when not to use ERASE NOTEBOOK CONTENTS, the entire row can be deleted.

		ERASE NOTEBOOK CONTENTS				GO BACK	MORE

SPEAK NOTEBOOK: Use the Arrow Keys to move the cursor to the position where you want to begin speaking the notebook. Activate SPEAK NEXT SENTENCE or SPEAK NEXT WORD to read the notebook. SPEAK ALL will read the entire notebook.

SPEAK NEXT SENTENCE	SPEAK NEXT WORD	SPEAK ALL	UP	DOWN	LEFT	RIGHT	MORE

					GO BACK		MORE

PRINT NOTEBOOK: The PRINT NOTEBOOK tool works only for printing directly to a printer. If you have the Pathfinder connected to computer and want to print to the printer connected to that computer, you will need to use the PRINT command in the COMPUTER ACCESS Activity. If that is the way you always print, customize this activity to include the PRINT tool for computer access.

The PRINT NOTEBOOK tool has a second use. When you are doing keyboard emulation, use the PRINT NOTEBOOK tool to send the entire text of your notebook into a word processing document.

VOICES: These tools, when placed in front of a sentence, change the voice that will be used to speak that sentence. They are useful for adding interest to stories and speeches.

Paul	Harry	Frank	Dennis	Betty	Ursula	Wendy	MORE

Rita	Kit				GO BACK		MORE

EDIT: The editing tools are used to do basic word processing.

BLOCK MARK	←	↑	EDIT MODE	↓	→	COPY COPY COPY	MORE
CUT	PASTE	RETURN			GO BACK		MORE

ACCENT/PAUSE: The stress and accent, when placed in front of a word, will put an accent or stress on that word. The pause inserts a pause from 100 to 900 milliseconds.

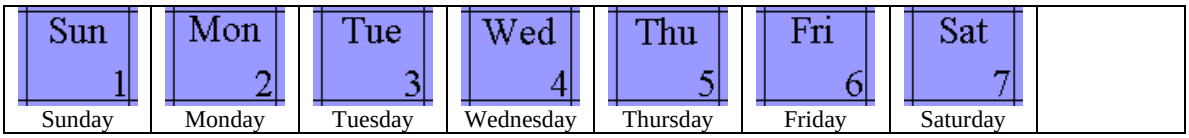
Stress	Accent	1 Pause	2 Pause	3 Pause	4 Pause	5 Pause	MORE
6 Pause	7 Pause	8 Pause	9 Pause		GO BACK		MORE

Time Related Activities

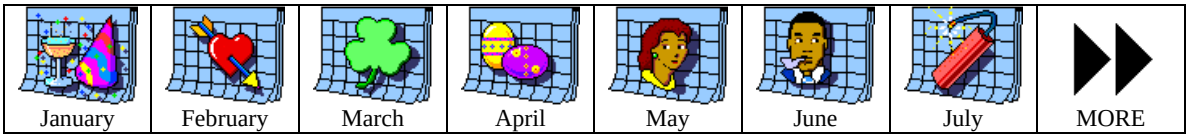
There are two time related activities, TIME and CIRCLE TIME. The CIRCLE TIME Activity was designed for children in school who need to participate in morning circle activities. The TIME Activity was designed for adolescents and adults who still need to be able to give time information. Most individuals will use either the TIME Activity or the CIRCLE TIME Activity. To remove the Activity that you do not need, go into Modify Activity and HIDE it.

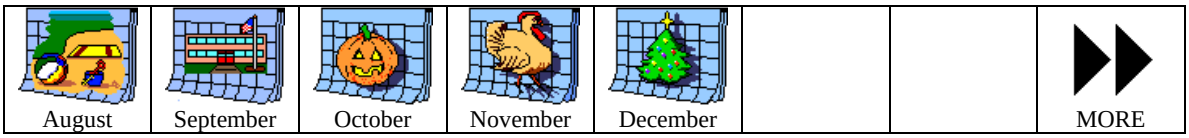
TIME:

DAY:



MONTH:

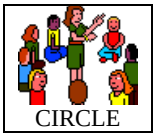


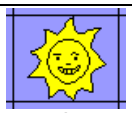
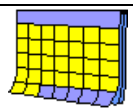
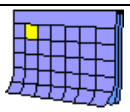


YEAR:

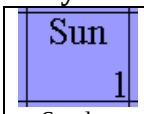
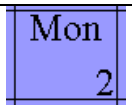
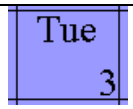
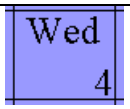
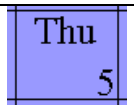
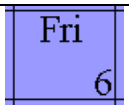
2001	2002	2003	2004	2005	2006	2007	2008

CIRCLE TIME

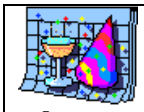
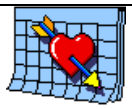
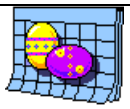
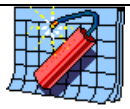

CIRCLE

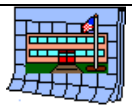
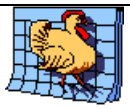
Morning	 DAY	 MONTH	 YEAR	Weather	Pledge	SING	MORE

Today is:

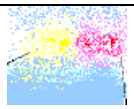
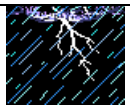
 Sunday	 Monday	 Tuesday	 Wednesday	 Thursday	 Friday	Saturday	

The month is:

 January	 February	March	 April	May	June	 July	MORE

August	 September	October	 November	December			MORE

The weather:

sunny	cloudy	windy	rainy	 foggy	snowy	 stormy	MORE

cold	hot						MORE

PLEDGE:

		Pledge			STOP TALK		GO BACK

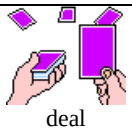
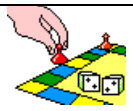
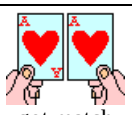
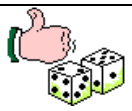
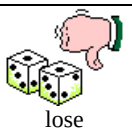
Let's sing:

KID SONG	HOLIDAY	ADULT					MORE

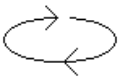
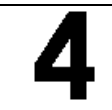
FUN AND GAMES

PLAYING	UNO	GO FISH	COOKIE	SIMONSAYS	PLAY CARS	BALL GAME	MORE
MR.POTATO		JOKES		SONGS			MORE

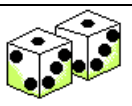
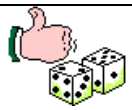
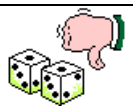
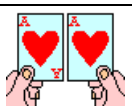
PLAYING:

My Turn	Your Turn	 deal	pick	roll	 move	 got match	MORE
Go Fish	no cheat	 win	 lose		yes	no	MORE

UNO:

Uno	 reverse	wild card	draw two	 draw four	skip		MORE

GO FISH:

Do have	apple	bed	 dice	Go Fish	yes	no	MORE
sun	umbrella	book	dog	 win	 lost	 got match	MORE

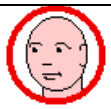
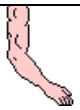
COOKIE:

Who took	NAMES…	Who, me?	Yes, you!	Couldn't	Then who?		

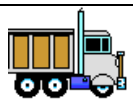
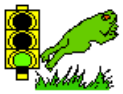
CK NAMES:

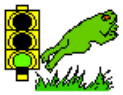
Cindy	Bobby	Ben	Sue	Jimmy	Patti	Sean	Jenny

SIMON SAYS:

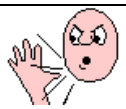
Simon Says	 touch	stomp	clap	 stretch	turn	jump	didn't say

PLAY CARS:

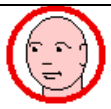
car	beep beep	 truck	vroom	firetruck	siren	 go	MORE

bus	beep beep	train	woo woo	airplane	zzzzzzzzz	 go	MORE

BALL GAME:

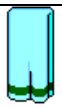
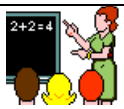
Yeah!	 Boo!	Go, go,	Push'em	We want a			MORE

MR. POTATO HEAD:

Mr. Potato	 head	eye	ear	nose	mouth	hand	MORE

foot	mustache	beard	hat	glasses			MORE

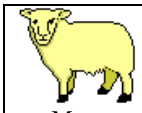
JOKES:

hear joke	good one	you tell	n't get it				MORE
cookie	snail	skunk	dirt	apple	bald	credit	MORE
elephant	football	 towel	mailman	pillow	Shakespear	 teacher	MORE

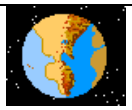
SONGS:

KID SONG	HOLIDAY	ADULT			STOP SING		

KID SONGS:

Hickory	Hickory	Humpty	Humpty	McDonald	McDonald	STOP SING	MORE
London Br	London Br	Jack&Jill	Jack&Jill	Teapot	Teapot	STOP SING	MORE
 Mary	Mary	Mulberry	Mul berry	Twinkle	Twinkle	STOP SING	MORE
Farmer	Farmer	Polly Put	Polly Put		GO BACK	STOP SING	MORE

HOLIDAY:

Away in a	Away in a	 Joy World	Joy World	Jingle Bells	Jingle Bells	STOP SING	MORE
Silent Ni	Silent Ni	O Come	O Come	Auld Lang	Auld Lang	STOP SING	MORE
					GO BACK		MORE

ADULT:

Grace	Grace	Alouette	Alouette	Jolly Good	Jolly Good	STOP SING	MORE
Mike Row	Mike Row	My Country	My Country	Auld Lang	Auld Lang	STOP SING	MORE
My Bonnie	My Bonnie	Waltzing	Waltzing		GO BACK	STOP SING	MORE

SCHOOL:

Unity 32 Version Sequenced Vocabulary

Unity 32 Sequenced

Speech ON/OFF: The User Defined Key has been assigned the SPEECH ON/OFF tool.

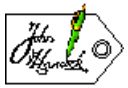
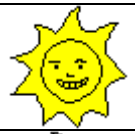
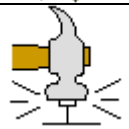
Activity Row

UNITY	GREETING	ME	NUMBERS	ACCESS	NOTEBOOKS	TOOLS	CATEGORY

Core Overlay

SPEAK	A POSS	B VERB	C INTERJ	D DET	E	F word	MINSPEAK CHOOSE ACTIVITY
G I	H	I	J	K	L	M	N
O you	P WANTED PRONOUNS	Q	R	S	T	U STOP	LAST SEL.
V it	W	X	Y	Z	SPACE	*DELETES SPELL MODE*	CLEAR

Pathfinder Unity 32

Icon	Preverb	Verbs	Adjectives	Nouns	Prep	Opposites	Rational
		say		small appliance			We <u>say</u> hello when we answer the phone. A phone is a <u>small appliance.</u>
		write		name			<u>Write</u> your <u>name</u> on the tag.
		play match	little small	game		win - lose	Dice are <u>little</u>. We use dice to <u>play</u> many <u>games</u>. The dice <u>match</u>.
	like	like laugh	funny silly	fun laughter		smile - frown	We all <u>like</u> sunny days. The sun has a <u>silly</u> face.
	must	work hit		job tool	into		We all <u>must</u> <u>work.</u> Use a hammer or other <u>tools</u> to do your <u>job.</u> <u>Hit</u> the nail <u>into</u> the wood.
		get fall	pretty beautiful	color nature	over		<u>Get</u> up in the morning. The <u>pretty</u> rainbow has many <u>colors</u>. Don't <u>fall</u> down the mountain. Somewhere <u>over</u> the rainbow.

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Icon	**Preverb**	**Verbs**	**Adjectives**	**Nouns**	**Prep**	**Opposites**	**Rational**
	will	read	favorite	book	about		We <u>will</u> <u>read</u> and study our <u>favorite</u> <u>books.</u> Read a book <u>about</u> ____.
		sing	more	song musical instrument			Play <u>more</u> music. Sing a <u>song</u> or play a <u>musical instrument.</u>
		help	sick ill	therapy medicine			The ambulance comes to <u>help</u> <u>sick</u> people.
	want	want					Who is on the wanted poster.
	did	come bring		family news	between		The <u>family</u> <u>did</u> get dressed up. The boy is <u>between</u> the parents. The dog will <u>come</u> and <u>bring</u> the <u>newspaper</u>.
	do	do remember	important	time clock	around		Say, "I <u>do</u>." when you get married. Tie a string around your finger to <u>remember</u> <u>important</u> things. The hands go <u>around</u> the <u>clock</u> to show the <u>time</u>.

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Icon	**Preverb**	**Verbs**	**Adjectives**	**Nouns**	**Prep**	**Opposites**	**Rational**
	am going	go walk	long	sport	across		A green light means go. The frog is going to jump a long way. Walk across the street. Wear sneakers to play sports.
	have	put have	rich real	toy money	in	open - close expensive - cheap	You can put toys in the chest. It's nice to have real money.
	should	stop wait	good great	adverb occupation	up		Stop when you see a stop sign. You should wait for the police to let you go. Thumbs up is good, even great.
		talk		sentence			They are talking.
	am/is/are	eat be	hungry busy	food	outside	sweet - sour	An apple is a good food to eat when hungry. The bee is busy. It belongs outside.
	would	live build	poor	home building	in front of	tall - short	Live in a house. The house is made of wood (would). Kids like to play in front of the house. Build a tall or short building. There are many poor buildings in the city.

Icon	**Preverb**	**Verbs**	**Adjectives**	**Nouns**	**Prep**	**Opposites**	**Rational**
	can	drink ask	thirsty	beverage question	of	full - empty	You can have a drink of juice when you are thirsty. Is the glass full or empty? The question mark is used to ask a question. What's on TV?
	feel	feel act	sad	feeling actor			The masks show happy and sad feelings. Sometimes actors wear a mask when they act in a play.
	need	need rain	bad necessary	weather	down		You need an umbrella when it rains. Is an umbrella necessary today? The thumbs down means bad.
		sleep	tired	furniture			We can sleep or rest on the bed when tired. A bed is furniture.

Verbs, Adjectives, Nouns

Verbs: Action Words

Action Man is used to represent verbs. Anything Mr. Action Man can do is a verb. Choose any icon from the core overlay and then choose Action Man to get the verb.

		read	Action Man will read a **book**.
		work	Action Man uses a hammer to **work**.
		play	Action Man uses dice to **play** a game.

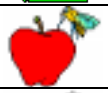
Adjectives: Describing words

Adjectives are words that describe. Use a paintbrush to paint a picture. Any word you can use to describe your picture is an adjective. Choose any icon from the core overlay and then choose the paintbrush to get the adjective.

		good	Relates to the portion of the icon. We give a thumbs up to represent **good.**
		bad	Relates to the portion of the icon. We use thumbs down to represent **bad.**
		little	The dice are **little**. I can hold them in my hand.

Nouns: (category nouns)

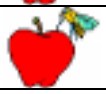
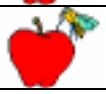
A noun is a person (the woman), a place (the cupboard), or a thing (the jug in the cupboard). Choose any icon from the core overlay and then choose the NOUN icon to get the noun. Notice that the nouns will be category name.

		book	The book represents the category of books and other things to read.
		food	The apple represents all foods.
		game	The dice represent the category of games.

More Verbs, Adjectives, Nouns

By activating the icon a second time, you often get a second verb, adjective, or noun. When the icon is a "clustered" icon, the first activation often relates to the one part of the icon and the second activation relates to the other icon.

			drink	Relates to the **JUICE** portion of the icon.
			beverage	Relates to the **JUICE** portion of the icon.
			ask	Relates to the **TV** portion of the icon.
			question	Relates to the **TV** portion of the icon.

			eat	Relates to the **APPLE** portion of the icon.
			hungry	Relates to the **APPLE** portion of the icon.
			be	Relates to the **QUEENBEE** portion of the icon.
			busy	Relates to the **QUEENBEE** portion of the icon.

Grammatical Endings

After a verb is spoken, the Activity Row displays the options for grammatical endings as well as a few possible choices for the next word in the sentence.

= eat

.	?	+s eats	+ing eating	+ed ate	an	the	a

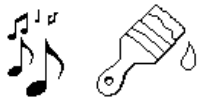
= read

.	?	+s reads	+ing reading	+ed read	about	the	a

After an adjective is spoken, the Activity Row displays the grammatical endings (adjective endings as well as the -ly adverb ending when appropriate). There may also be one or several possible options for next word prediction.

= sick

.	?		as		+er sicker	+est sickest	-ly sickly

 **= more**

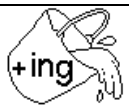
.	?	than			+er more	+est most	-ly mostly

Easy Access to Tools and Vocabulary in Activity Row

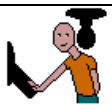
Four icons on the core overlay give quick access to functions and vocabulary in the Activity Row.

		VERB					
						DELETES SPELL MODE	

Activating the VERB icon gives access to the VERB category that contains additional verbs.

VERBS		are	is	 were	was		

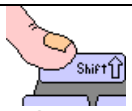
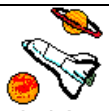
Activating the PREP/ADJ icon gives access to the ADJECTIVE category that contains additional adjectives.

ADJECTIVES	out	by	on	 off	to	with	MORE

Activating the ?WD/NOUN icon gives access to the CATEGORY Activity that contains additional noun categories.

which	how old	why	where	how much	how many		CATEGORY

Activating the UMBRELLA icon gives access to an Activity that contains a number of useful functions, including Spell Mode.

.	?	 SHIFT	PLURAL	SPELL	 SPACE	DEL WORD	DEL CHAR

Pronouns

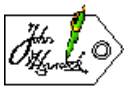
Subject Pronouns: A double hit on the Pronoun icon gives the subject pronoun.	
	I
	you
	it

Object Pronouns: The pronoun plus PHONE gives the objective pronoun. Rational: The phone is for **me**. The phone is for **you.**	
	me
	you
	it

Possessive Adjectives: The luggage tag is use to show possession. Put tags on things to show that this in **my** or **your** item.	
	my
	your
	its

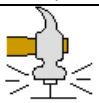
Possessive Pronouns: The luggage tag is use to show possession. A tag on my lunch box shows that it is **mine.**	
	mine
	yours
	its

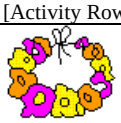
Additional pronouns are available as follows:

	[Activity Row]	he, she, we, they him, her, us, them	Easy access to the pronouns. The WANTED poster shows a person.
	[Activity Row]	his, hers ours, theirs her, our, their	Easy access to possessive pronouns and possessive adjectives.

Pronoun Phrases

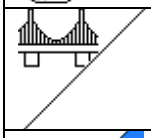
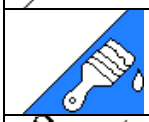
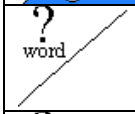
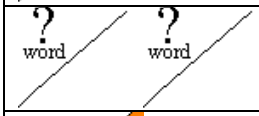
Activating any pronoun followed by one of the icons listed below will produce a pronoun phrase. The following pronoun phrases are included in Unity 32.

Icon 1	Icon 2	Pronoun Phrase	Rational
		I like	We all **like** sunny days. When we **like** something, we smile.
		I must	We **must** go to work.
		I will	His name is **Will** (Shakespeare). **Will** you read a book to me?
		I want	The **WANT**ED poster shows a **want**ed man.
		I did	The family **did** dress up for their picture.
		I do	You say "I **do**" when you get married.
		I am going	Relates to the frog. The frog **is going**.
		I have	Relates to the money. It's always good to **have** money.
		I should	You **should** obey the police officer.
		I am	Relates to the BEE. It is the **be** verb.
		I would	Relates to the HOUSE. The house is made of wood (sounds like **would**).
		I can	Relates to the JUICE. Juice often comes in a **can**. You **can** drink juice from a **can**.
		I feel	The masks show **feel**ings.
		I need	Relates to the umbrella. You **need** an umbrella when it rains.

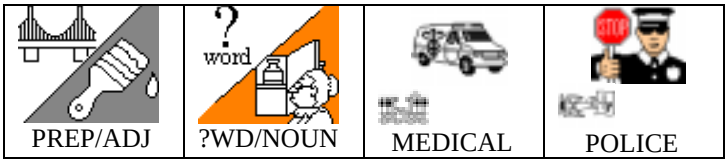
Icon 1	Icon 2	Pronoun Phrase	Rational
	[Activity Row]	I thought	He is **thought** and thought.
	[Activity Row]	I was	**Was** the watch correct? What time **was** it when…?
	[Activity Row]	I had	Everyone **had** a good time in the city.
	 [Activity Row]	I may	**May** flowers
	[Activity Row]	I might	Elephants are **might**y.
	[Activity Row]	I could	The little engine that **could**
	[Activity Row]	I know	School is a place where we acquire **know**ledge.
	[Activity Row]	I think	The woman is **think**ing.

Grammatical Categories

The pattern for grammatical categories is to select an icon for the category plus either an icon from the core overlay or an icon from the Activity Row.

Icon	Category	Examples
	Preverbs Additional Verbs	*are, is, were, was, will, can, should* *use, give, make, call, talk, turn, cook*
	Interjections Holiday Greetings	*please, thank you, ouch, ha ha ha* *Happy Birthday, Happy Valentine's Day*
	Determiners Indefinite Pronouns	*a, an, the, all, these, those, this, that* *anybody, everybody, nobody, somebody*
	Prepositions	*up, down, on, off, about, of in, out*
	Additional Adjectives	*new, old, hot, cold, fast, slow*
	Question Words	*who, what, when, where, why, how*
	Question Words Contractions	*who's, what's, when's, where's*
	Additional Nouns	*people, places, animals, clothing*
	Conjunctions	*and, but, or, if, because*
	Adverbs	*here, there, very, just, once, much*

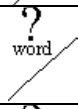
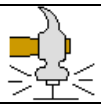
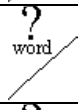
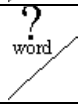
Four of the icons are "shared" icons. They represent more than one category.



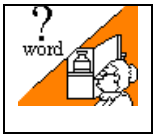
With the PREP/ADJ and ?WD/NOUN icons, you choose an icon from the core overlay and then go up to the icon for adjectives or nouns. For example:

	+			favorite
	+			book
	+			thirsty
	+			beverage

You choose the PREP/ADJ and ?WD/NOUN icons and then a core icon to get prepositions and question words.

	+			in
	+			about
	+			over
	+			how
	+			who
	+			when

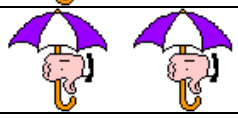
Semantic Categories

The pattern for semantic categories is to select the icon for the category and then find the vocabulary item in the Activity Row. Selecting that category icon an then activating the NOUN icon 

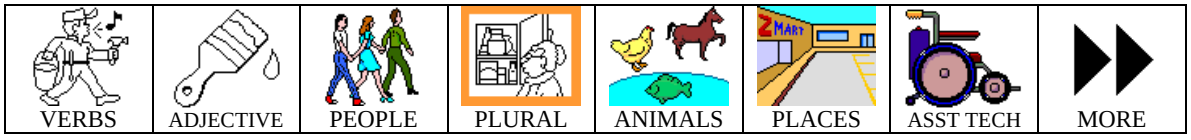
will give the name of the category.

Icon	Category	Examples
	Small Appliances Communication Devices	*telephone, pager, cell phone, radio* *Pathfinder, Vanguard, Vantage*
	Possessive Pronouns	*his, hers, ours, theirs*
	Names	*Daryl, Madison, Tyler, Shanda*
	Games	*checkers, Uno, bingo, poker*
	Tools	*hammer, screwdriver, allen wrench*
	Colors Art Supplies	*red, orange, yellow, blonde, brunette* *paper, pencil, crayon, glue, scissors*
	Nature	*tree, yard, grass, plant, flower*
	Books Book Parts	*notebook, journal, magazine, story* *page, chapter, paragraph, word, letter*
	Songs	*Kid songs, Holiday songs, Adult songs*
	Musical Instruments	*band, concert, CD, piano, drum*
	Conjunctions	*and, but, or, if, because*
	Medical	*medicine, bandage, trach, suction, shot*

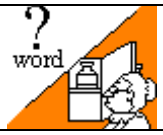
Icon	Category	Examples
	Pronouns	*he, she, we, they, him, her, us, them*
	Family	*dad, mom, grandma, grandpa* *mother, father, sister, brother*
	Extended Family	*grandmother, grandfather, grandchild*
	Time	*yesterday, today, tomorrow, morning,* *night, days, months, seasons*
	Clock Time	*early, late, hour, minute, second* *1:00, 1:15, 1:30, 1:45*
	Sports	*baseball, basketball, football, soccer*
	Toys Containers	*ball, blocks, bubbles, doll* *bag, box, basket, backpack*
	Money	*penny, nickel, dime, quarter*
	Adverbs	*here, there, very, just, once, much*
	Occupations Employment	*teacher, OT, PT, secretary, doctor* *boss, co-worker, resume, job application*
	Food Meals	*fruits, vegetables, meat, dairy, snacks* *breakfast, lunch, dinner*
	Rooms	*living room, kitchen, bedroom, bathroom*
	Buildings Building Parts	*house, school, store, restaurant* *ramp, elevator, door, window, floor*
	Beverages	*coffee, tea, milk, juice, iced tea, water*
	TV programs TV shows	*cartoon, game show, news, sports* *Wheel of Fortune, Jeopardy*

Icon	Category	Examples
	Feelings	*happy, sad, excited, frustrated*
	Actors	*Leonardo DiCaprio, Oprah Winfrey*
	"Tools"	*shift, plural, space, delete word, delete character, spell mode*
	Weather	*sun, cloud, wind, rain, fog, snow*

Additional Categories: Additional categories are available in the Activity Row via the CATEGORY icon.



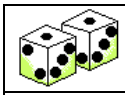
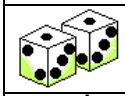
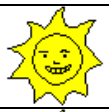
NOTE: There are several ways to access the category icon.

	Activate		
	CHOOSE ACTIVITY	You can activate CHOOSE ACTIVITY until the CATEGORY icon appears in the Activity Row.	
		If you have the UNITY Activity opened, the CATEGORY icon is at the end of the Activity Row.	
		Activating the NOUN icon brings up the CATEGORY icon.	

Notice that always appears at the end of the Activity Row.

Opposites

In Unity, the THUMBSUP and THUMBSDN icons are used to represent opposites. In Unity 32 those icons are combined with the POLICE and the UMBRELLA .

		[ ]	win
		[ ]	lose
		[ ]	smile
		[ ]	frown
		[ ]	open
		[ ]	close
		[ ]	expensive
		[ ]	cheap
		[ ]	sweet
		[ ]	sour
		[ ]	tall
		[ ]	short
		[ ]	full
		[ ]	empty

Names of People

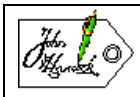
Immediate Family: Activating the FAMILY icon gives you quick access to the names of members of your immediate family.

	[Activity Row]	Row 1: Store names of immediate family (mom, dad, etc.) Row 2-3: generic family names (mother, father, sister, brother, etc.)

dad	mom	name	name	grandma	grandpa	pet name	MORE

parent	father	mother	sister	brother	husband	wife	MORE

Additional Names: To access all other names, activate the POSS icon twice.

		**[Activity Row]**	Names

The NAMES Activity can be used to store a few or many names. This Activity has been set up with two sub-categories for names. More subcategories can be added or all sub-categories can be eliminated. For individuals who want only a few names, you can eliminate the subcategories and just store the names on one or more rows.

SCHOOL NM	FAMILY NM		Daryl	Madison	Tyler	Shanda	MORE

SCHOOL NAMES:

This activity is empty. Store the names of your classmates and or teachers here.

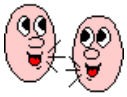
							MORE

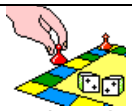
FAMILY NAMES:

Uncle Bob	Aunt Amy						MORE

Other subcategories that might be set up are: WORK NAMES, CHURCH NAMES, SUMMER CAMP NAMES, etc.

SENTENCES: Sentences begin with the SENTENCE icon. There are two rows of sub-categories of sentences. Customize them to meet your needs.

 COMMENT	WANTS	I DON'T	REPAIR	MEDICAL	FRIENDS	QUESTION	MORE

TECHNOLOGY	PATHFIND	PHONE	TELLING	 PLAYING	JOKES	SCHOOL	MORE

The sentence categories are exactly the same as those in the Single-hit vocabulary. Refer to page 99 for a complete listing of these.

Activity Row Sequenced

UNITY	GREETING	ME	NUMBERS	ACCESS	NOTEBOOKS	PF TOOLS	CATEGORY
REMOTES	WORD CUES	TIME	CIRCLE	FUN/GAMES	SCHOOL		

All of the Activities in the Sequenced vocabulary are the same as in the Single-Hit. This makes it easier to transition from one to the other.

The only difference is in the CATEGORY Activity, which provides access to a large vocabulary of nouns, verbs, and adjectives. In the Sequenced Vocabulary, there are fewer categories in total. The reason for this is that many have been added as Dynamic Activities to sequences, making it quicker to access them. Below is a listing of the Activities available.

CATEGORY:

VERBS	ADJECTIVE	PEOPLE	PLURAL	ANIMALS	PLACES	ASST TECH	MORE
CLOTHING	EARTH	VEHICLES	PLURAL	BODY	DISHES	CLASSES	MORE
SHAPES	HOLIDAY	TOILETRIES	PLURAL	COMPUTER	LG APPLIAN	THINGS	MORE
MILITARY			PLURAL				MORE

Appendices

Appendix A: 106 Most Frequently Used Words

INTERJECTIONS (SOCIAL WORDS)	
yes	no
thank you	please
okay	

PRONOUNS	
I	me
you	
he	she
it	we
they	

QUESTION WORDS	
what	when
where	who
why	how

VERBS (HELPING WORDS)	
be	is
am	are
can	could
do	did
have	had
was	were
will	would

VERBS (ACTION WORDS)	
ask	-ing
buy	
call	need
clean	put
come	remember
eat	say
feel	start
find	take
get	tell
give	think
go	try
help	turn
know	use
like	want
look	wish
make	work

ADJECTIVES (DESCRIPTIVE WORDS)	
all	more
big	little
hot	cold
same	different
pretty	
new	old
right	wrong

PREPOSITIONS (PLACING WORDS)	
about	at
for	of
up	down
on	off
to	from
in	out
with	

DEMONSTRATIVES (POINTER WORDS)	
this	that

CONJUNCTIONS (CONNECTING WORDS)	
and	because
but	if

ADVERBS (WHEN, WHERE, HOW)	
not	now
here	there
much	very

Pam Elder, 1992 phone conversation

Appendix B: DeltaTalker Hardware Presets

Some of the DeltaTalker functions in *Unity* 128 Version are preset at the factory. This is done to take advantage of some of the more important features in Liberator. For example, "Icon Tutor" is turned on under the Feedback Menu. This was preset so that you can spell a word in the DeltaTalker anytime and it will tell you the icon sequence for that word. This helps you to learn where the vocabulary is stored. The DeltaTalker will report the icon sequence at the bottom of the liquid crystal display and by flashing the lights of that sequence three times on the icon overlay.

Presets include the following:

From the Feedback Menu

- Icon Prediction = ON
- Predictive Selection = OFF
- Auto Spell = OFF
- View Selected Icons = ON
- Auto Power Down = ON
- Backlight = ON
- Backlight Shut-Off = OFF
- Icon Tutor = ON

From the Selection Technique Menu

- Selection Technique = KEYBOARD ONLY

From the Output Menu

- Serial Port = OFF

From the Speech Menu

- Voice = Perfect Paul

Refer to the operator's manual for the DeltaTalker to change the factory presets listed above.

Appendix C: Liberator Hardware Presets

Some of the Liberator functions in *Unity* 128 Version are preset at the factory. This is done to take advantage of some of the more important features in Liberator. For example, "Icon Tutor" is turned on under the Feedback Menu called "Report Sequence When Spelling." This was preset so that you can spell a word in the Liberator anytime and it will tell you the icon sequence for that word. This helps you to learn where the vocabulary is stored. The Liberator will report the icon sequence at the bottom of the display and by flashing the lights of that sequence three times on the icon overlay.

Presets include the following:

From the Feedback Menu

- Display = Scrolling
- Menu Choices = Direct Letter and Number
- Icon Prediction (intensity) = 4
- Spell One Word = OFF
- Auto Spell = OFF
- Display Control Characters = OFF
- Text Cursor = Thick
- Clear Display at Power UP = ON
- Report Sequence When Spelling = ON
- Flash Icon Sequence = 3 times
- Icon Flash Duration = 1.5
- Display Carriage Returns = OFF

From the Selection Technique Menu

- Keyboard Only
- Predictive Selection = OFF

From Output Menu

- Printer = OFF

From the Speech Menu

- Main Voice = Perfect Paul

Refer to the Learning Liberator manual to change the factory presets listed above.

Appendix D: Loading *Unity* 128 Version Vocabulary Into Your DeltaTalker

Loading *Unity* 128 Version Into Your DeltaTalker Using An IBM or IBM Compatible Computer

Before starting, make sure your PASSWORD in step 13 is filled in.
If it is not, call PRC Service (Monday-Friday 8:00 a.m. - 5:00 p.m.) before continuing.

1. Plug the MTI-IBM cable into your RS232 port and into serial port #1 on your computer, and turn the device on.
2. Turn on your computer and insert the MTI disk.
3. If necessary, change to the drive you are going to use, e.g., if the disk is in Drive B, type "**B**:" and press <RETURN>.
4. Type into your computer MTI (no spaces) and activate RETURN to open the program and start loading vocabulary into your device.
5. Select the device you are transferring memory to, in this case type "E" for DeltaTalker.
6. Turn on DeltaTalker's Toolbox.
7. Activate TRANSFER MEMORY MENU (N2) in the Toolbox.
8. Activate NEXT MENU ITEM to step through the menu until "Load Memory from Disk=>No<" is on the display.
9. Activate "Change >Item<" to start the load. (Hint: Use "Merge/Load" when you are downloading a MAP Mate.)
10. Using the arrow keys, move up or down to find the vocabulary file you want to load, or choose F1 to see the files on another disk.
11. Activate ENTER when you find the correct file.
12. As the screen instructs you, press F1 to start the memory transfer.
13. Type your password (see below) on the DeltaTalker keyboard.

Your password is:
_ _ _ _ _ _ _ _

(Your DeltaTalker serial number should be _____)

14. When it is finished, turn your device off, unhook your cable from the device and exit out of the computer program.

NOTE: If you experience a problem, make sure the computer and DeltaTalker baud rates are the same. The DeltaTalker default MTI baud rate is 57600. To change the baud rate for the computer type MTI, add a space, and then type the baud rate you wish to use.

- - - Warning - - -
During a memory transfer DO NOT remove the battery pack, turn off, or unplug the DeltaTalker.

Loading *Unity* 128 Version Into Your DeltaTalker Using A Macintosh Computer

Before starting, make sure your PASSWORD in step 9 is filled in.
If it is not, call PRC Service (Monday-Friday 8:00 a.m. - 5:00 p.m.) before continuing.

1. The MTI-MAC cable should be connected, flat side up, to the Modem Port on your computer and the RS232 port (cable flat side down) on the top edge of the DeltaTalker.
2. Turn on the computer, insert your vocabulary disk and double click on "PRC MTI v.4.01 Mac."
3. Select the device you want to load with software, in this case double click on "DeltaTalker."
4. Open the Toolbox of the DeltaTalker, and on the Toolbox overlay, select TRANSFER MEMORY Menu.
5. Select NEXT MENU ITEM one time or until the display reads: "Load From Disk =>No<."
6. Select CHANGE >ITEM<.
7. Your computer screen will now list all files on your computer. Double click on the vocabulary program you want to load into your DeltaTalker.
8. On the next screen, select "Continue."
9. Type your password (see below) on the DeltaTalker keyboard.

Your password is:
_ _ _ _ _ _ _ _ _

(Your DeltaTalker serial number should be _____)

10. After the transfer has been completed, select the EXIT key on the DeltaTalker to exit the TRANSFER MEMORY Menu and close the Toolbox.
11. Unhook your cable from the device.
12. On your computer screen, select "Exit to Beginning."
13. On the next screen, select "Quit MTI."

NOTE: If you experience a problem, make sure the computer and DeltaTalker baud rates are the same. The DeltaTalker default MTI baud rate is 57600. Change the baud rate for the computer in the MTI menu bar.

- - - Warning - - -

During a memory transfer DO NOT remove the battery pack, turn off, or unplug the DeltaTalker.

Appendix E: Loading *Unity* 128 Version Vocabulary Into Your Liberator

Loading *Unity* 128 Version Into Your Liberator Using An IBM or IBM Compatible Computer

1. Plug the MTI-IBM cable into your RS232 port and into serial port #1 on your computer and turn the device on.

2. Turn on your computer and insert the vocabulary disk.

3. If necessary, change to the drive you are going to use, e.g., if the disk is in Drive B, type "**B**:" and press <RETURN>.

4. Type into your computer MTI (no spaces) and activate RETURN to open the program and start loading vocabulary into your device.

5. Select the device you are transferring memory to, in this case type "L" for Liberator.

6. In the Liberator's Toolbox, open the TRANSFER MEMORY MENU (N2).

7. Activate #4 (Load One User Area).

8. Select an area to load *Unity* into.
   If you selected an area where nothing has been stored, go to Step 9.
   If you selected an area that has something in it, activate #1 (Erase Old Vocabulary).

9. Using the arrow keys, move up or down to find the vocabulary file you want to load, or choose F1 to see the files on another disk.

10. Activate ENTER when you find the correct file.

11. As the screen instructs you, press F1 to start the memory transfer.

12. When it is finished, turn your device off, unhook your cable from the device and exit out of the computer program.

NOTE: If you experience a problem, make sure the computer and Liberator baud rates are the same. The Liberator default MTI baud rate is 38400.
To change the MTI baud rate for the computer, type MTI, add a space, and then type the baud rate you wish to use.

- - - Warning - - -

During a memory transfer DO NOT remove the battery pack, turn off, or unplug the Liberator.

Loading *Unity* 128 Version Into Your Liberator Using A Macintosh Computer

1. The MTI-MAC cable should be connected, flat side up, to the Modem Port on your computer and the RS232 port (cable flat side down) on the left side panel of the Liberator.

2. Turn on the computer insert your vocabulary disk and double click on "PRC MTI v.4.01 Mac."

3. Select the device you want to load with software, in this case double click on "Liberator."

4. Lift the lid of your Liberator, and on the Toolbox overlay select TRANSFER MEMORY MENU.

5. Next, select #4, "Load One User Area."

6. The next Liberator screen gives you a choice of user areas into which the vocabulary program can be loaded. Select which User Area to load the MAP into.

7. Your computer screen will now list all files on your disk. Double click on the vocabulary program you want to load into your Liberator.

8. On the next screen, select "Continue."

9. After the transfer has been completed, select #5 on your Liberator to exit the TRANSFER MEMORY MENU.

10. Unhook your cable from the device.

11. On your computer screen, select "Exit to Beginning."

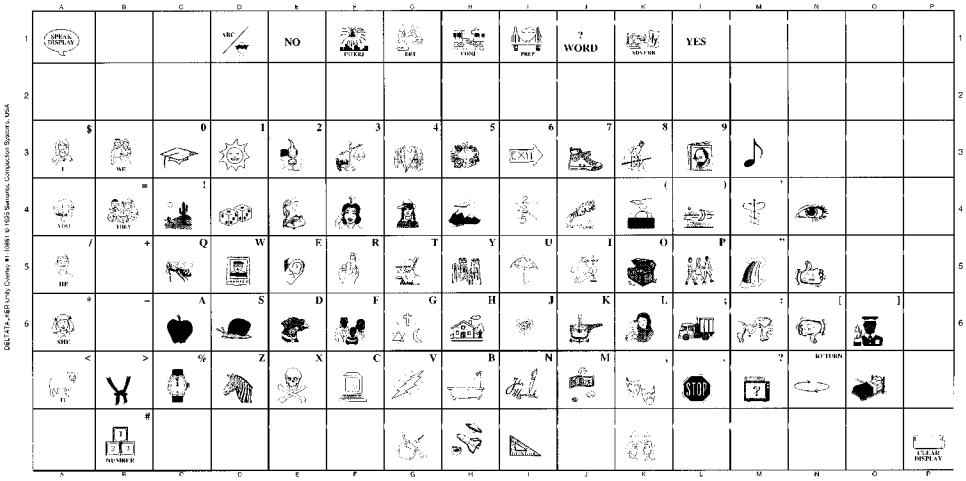
12. On the next screen, select "Quit MTI."

NOTE: If you experience a problem, make sure the computer and the Liberator MTI baud rates are the same. The Liberator default MTI baud rate is 38400. Change the baud rate for the computer in the MTI menu bar.

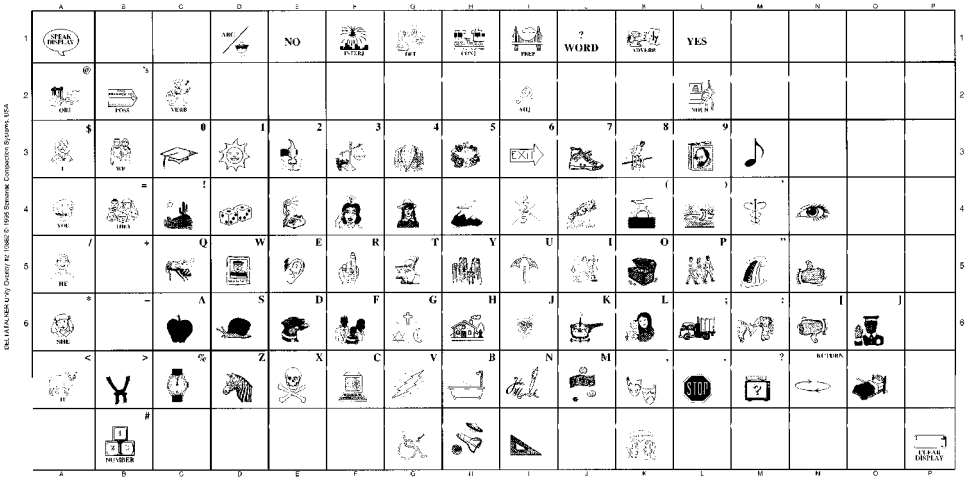
- - - Warning - - -

During a memory transfer DO NOT remove the battery pack, turn off, or unplug the Liberator.

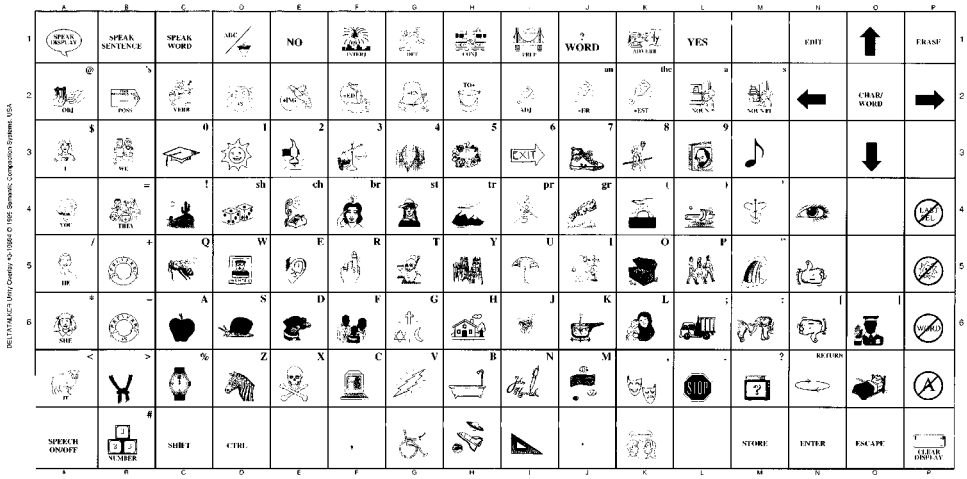
Appendix F: *Unity* 128 Version Icon Overlays for DeltaTalker



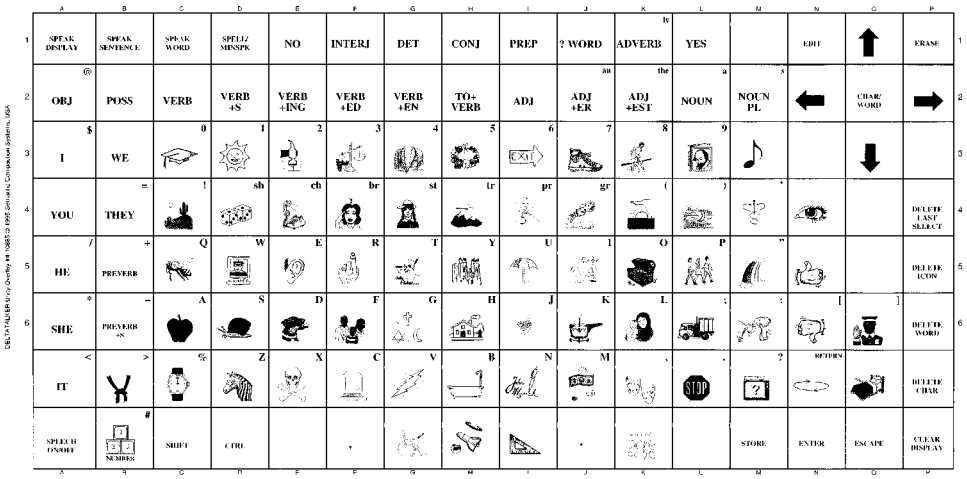
Unity 128 Version Icon Overlay 1 for DeltaTalker



Unity 128 Version Icon Overlay 2 for DeltaTalker



Unity 128 Version Icon Overlay 3 for DeltaTalker



Unity 128 Version Icon Overlay 4 for DeltaTalker

Appendix G: References

Badman, A. L., Baker, B. R., Banajee, M., Cross, R., Lehr, J. S., Maro, J., and Zucco, M. *Unity: A Minspeak Application Program.* Wooster, OH: Prentke Romich.

Baker, B. (1988) *Words Strategy: A Minspeak Application Program.* Wooster, OH: Prentke Romich.

Barret, B.J. (1970). *Animals should definitely not wear clothing.* New York: Atheneum.

Bates, E., Bretherton, I., & Snyder, L. (1988). *From first words to grammar/individual differences and dissociable mechanisms*. Cambridge: Cambridge University Press.

Beall, P.C. & Nipp, S.H. (1979). *Wee Sing® children's songs and finger plays*. Los Angeles: Price Stern Sloan.

Berenstain, J. & S. (1986). *The Berenstain Bears and too much birthday*. New York: Random House.

Berenstain, S. and Berenstain, J. *Inside, Outside, Upside Down.* New York: Random House.

Berger, K. (1967). The most common words used in conversation. *Journal of Communication Disorders, 1*, 201-214.

Beukelman, D. R., Jones, R. S., & Rowan, M. (1989). Frequency of word usage by nondisabled peers in integrated preschool classrooms. *Augmentative and Alternative Communication, 5*, 234-248.

Bloom, L. (1991). *Language development from two to three.* Cambridge: Cambridge University Press.

Boynton, S. (1984). *Blue hat, green hat.* New York: Simon and Schuster.

Boynton, S. (1993). *Birthday monsters.* New York: Workman Publishing Company.

Broderbund. (1995). Print Shop Ensemble. Redmond, WA: Edmark.

Brown, R. (1973). *A first language: the early stages*. Cambridge: Harvard University Press.

Bruno, J. (1988). *Interaction, Education and Play+: A Minspeak Application Program.* Wooster, OH: Prentke Romich.

Carle, E. (1986). *The secret birthday message.* USA: Harper Trophy.

Cole, J. & Calmenson, S. (1991). *The eentsy, weentsy spider: Fingerplays and action rhymes*. New York: Mulberry Books.

Don Johnston. (1993). Circle Time Tales. Wauconda, IL: Don Johnston, Inc.

Don Johnston. (1993). Story Time Tales. Wauconda, IL: Don Johnston, Inc.

Edmark. (1993). Bailey's Book House. Redmond, WA: Edmark.

Elder, P. (1992, Nov.). 106 most frequently used vocabulary words. Personal conversation.

Fried-Oken, M. & More, L. (1992). An initial vocabulary for nonspeaking preschool children based on developmental and environmental language sources. *Augmentative and Alternative Communication, 8*, 41-54.

Gemler, Marcia (1993). *Communic-ease: For rapid generation of langauge using key concepts*. Wooster, OH: Prentke Romich.

Howes, D. (1966). A word count of spoken English. *Journal of Verbal Learning & Verbal Behavior, 5*, 572.

Jones, Tony (1991). *Language, Learning and Living*. Wooster, OH: Prentke Romich.

King-DeBaun, P. (1990). *Storytime.* Ackworth, GA: Patti King-DeBaun.

Martin, Bill (1992). *Brown Bear, Brown Bear, What Do You See?* New York: H. Holt.

Marvin, C.A., Beukelman, D.R., Bilyeu, D. (1994). Vocabulary use patterns in preschool children: effects of context and time sampling. *Augmentative and Alternative Communication*, 10, 224-236.

McGinnis, J.S. & Beukelman, D. R. (1989). Vocabulary requirements for writing activities for the academically mainstreamed student with disabilities. *Augmentative and Alternative Communication*, *3*, 183-191.

Mein, R. & O'Connor, N. (1960). A study of the oral vocabularies of severely subnormal patients. *Journal of Mental Deficiency Research, 4*, 130-143.

Musselwhite, C.R. (1985). *Signs and Symbols for Children*. Order from: Southeast Augmentative Communication Publications, 2430 11th Avenue North, Birmingham, AL 34234

Owens, R. E. (1984). *Language development/ an introduction.* Columbus, OH: Charles E. Merrill.

Peek, M. (1985). *Mary wore her red dress and Henry wore his green sneakers*. New York: Clarion Books.

Raban, B. (1987). *The spoken vocabulary of five-year old children*. Reading, England: The Reading and Language Information Centre.

Raffi. (1976). *Singable songs for the very young*. Universal City, CA: MCA Records, Inc.

Raffi. (1987). *Everything grows*. Universal City, CA: MCA Records, Inc.

Simon, W.L. (Ed.). (1985). *The Reader's Digest children's songbook.* Pleasantville, NY: Reader's Digest Association, Inc.

Stuart, S. & Beukelman, D. R. (1993). Customizing communication technology for older persons. *Technology and Disability*, *2*, 43-55.

Stuart, S. (1993). AAC issues across the age span. *Technology and Disabilities*, *2*, 19-31.

Valot, L. S. (1995). *BUILLD: Bringing Unity Into Lanuage and Learning Development.* Wooster, OH: Prentke Romich.

Valot, L.S., Badman, A.L., & Cross, R.T. (1997). *Color Juice.* Wooster, OH: Prentke Romich.

Van der Meer, R. (1992). *The birthday cake.* New York: Random House.

Van Tatenhove, G. (1989) *Power In Play+: A Minspea*k *Application Program.* Wooster, OH: Prentke Romich.

Wetzel, R. (1993). *What do you say?* New York: Random House/Children's Television Workshop.

Yorke, J. (Ed.). (1996). *My first look at colours*. London: Dorling Kindersley.

Yorke, J. (Ed.). (1990). *My first look at shapes*. New York: Random House.

Yorkston, K. M., Dowden, P.A., Honsinger, M.J., Marriner, N., & Smith, K. (1988). A comparison of standard and user vocabulary lists. *Augmentative and Alternative Communication*, *4*, 189-210.

Appendix H: *Unity* Condensed Files On Your Disks

Your *Unity* program disks allow you to load any of the vocabularies into your device. From the table below, first choose your device (DeltaTalker, Liberator, Liberator II) and then the type of computer you will be loading from (Macintosh or IBM-compatible). You can then see the name of the vocabulary file as it appears on your disks.

Device	***Unity* Vocabulary**	**Mac filename**	**IBM filename**
DeltaTalker	Vocabulary 1	DT US Un/128 #1 v1.03	DTOV#1.MTI
	Vocabulary 2	DT US Un/128 #2 v1.03	DTOV#2.MTI
	Vocabulary 3	DT US Un/128 #3 v1.03	DTOV#3.MTI
	Combo Vocabulary	DTUS Un 128 COMBO	DTUCCOMB.MTI
Liberator II	Vocabulary 1	LIB 2 US Un Cond #1	LIB2OV#1.MTI
	Vocabulary 2	LIB 2 US Un Cond #2	LIB2OV#2.MTI
	Basic Vocabulary	LIB 2 US Un Cond Basic	LIB2BAS.MTI
	Extended Vocabulary	LIB 2 US Un Cond Ext	LIB2EXT.MTI
	“Brown Bear” notebook	BROWNBR.TXT	BROWNBR.TXT
	“Inside, Outside” notebook	INSIDE.TXT	INSIDE TXT
Liberator I	Vocabulary 1	LIB 1 US Un Cond #1	LIB1OV#1.MTI
	Vocabulary 2	LIB 1 US Un Cond #2	LIB1OV#2.MTI
	Basic Vocabulary	LIB 1 US Un Cond Basic	LIB1BAS.MTI
	Extended Vocabulary	LIB 1 US Un Cond Ext	LIB1EXT.MTI
	“Brown Bear” notebook	BROWNBR.TXT	BROWNBR.TXT
	“Inside, Outside” notebook	INSIDE.TXT	INSIDE TXT

Appendix I: *Unity* Condensed DeltaTalker Combo File

On your *Unity* disk, you will find a special DeltaTalker file called the "Combo" file. This makes use of the "themes[1]" feature in PRC devices and allows you to have all the *Unity* Condensed vocabularies available at the same time. With the Liberator, it is possible to have all the vocabularies available by storing each one into one of the four User Areas: DeltaTalker does not have User Areas. After loading the Combo file, you will find that the key as location O4 is lit. You will then find that you can change vocabularies as follows:

Icon Sequence	***Unity* Vocabulary**
ICON O4 + SUN	Vocabulary 1
ICON O4 + HAMMER	Vocabulary 2
ICON O4 + SCALES	Basic Vocabulary
ICON O4 + SUIT	Extended Vocabulary

This means that you can move from vocabulary to vocabulary with just two key presses.

The Combo Vocabulary can be used by parents, teachers, clinicians, and other facilitators to explore the different vocabularies and see how they are related. Assessment centers may find it valuable to be able to quickly change from one vocabulary set to another when evaluating a client. Individuals running training sessions can teach all four vocabularies without the need to do memory transfers.

CAUTION!

Although the Combo vocabulary can be used as a valuable tool, using it with clients as a "standard" or "default" vocabulary can introduce problems.

- When using anything other than the Extended Vocabulary, the device will be "in a theme." This means that if you select a sequence such as I + WANTED, you will see other icon names appear on the display in front of the ones you have chosen. This is because of the way the vocabularies have been stored. Thus, the visual feedback on the display can be misleading.

- If you store new vocabulary while in one vocabulary, you will have to restore it when moving to another. You cannot simply "merge" old vocabulary into new, which you can do if you are using the regular vocabulary files.

- The MIKE keyboard emulation program will only work if you merge it into a vocabulary file that isn't in a theme. For example, you cannot add MIKE to the Basic Vocabulary if you are using the Combo file; you can add it if you are using the regular Basic file.

[1] If you want more information on "themes," refer to your device "Operator's Manual" for details.

- If you change from one vocabulary to another, you may still need to change the physical overlay on your device. An individual using Overlay 1 with Vocabulary 1 in the Combo could switch to Vocabulary 2, but would need to change to overlay 2 because new icons are added.

It is recommended that you only use the Combo file as a short-term tool to determine which vocabulary you want to start with. The Combo is great for exploration and evaluation, but is subject to the problems mentioned above, and should therefore be used with caution.

Appendix J: Overlays Layouts and Vocabulary Defaults in Unity 128 Version for Pathfinder

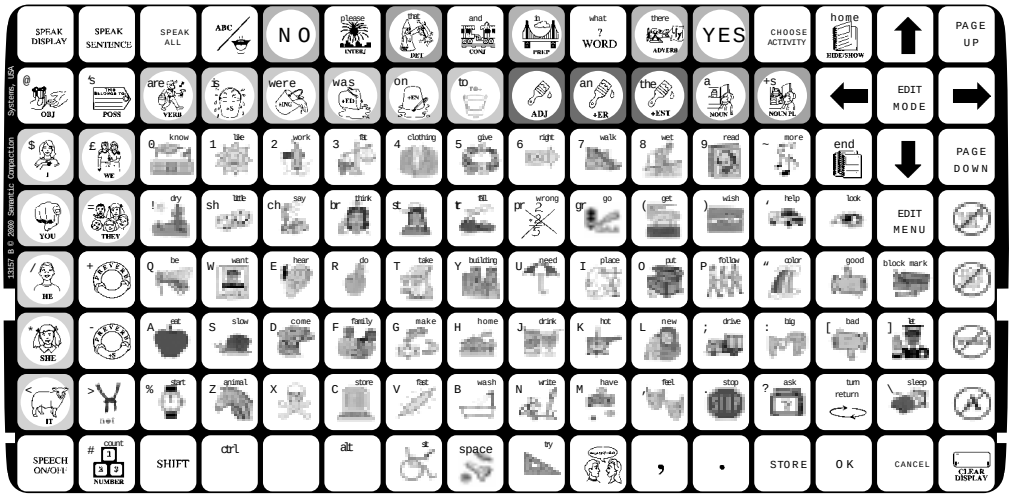


Fig. 1. *Unity* 128 Version for Pathfinder – Single-Hit overlay

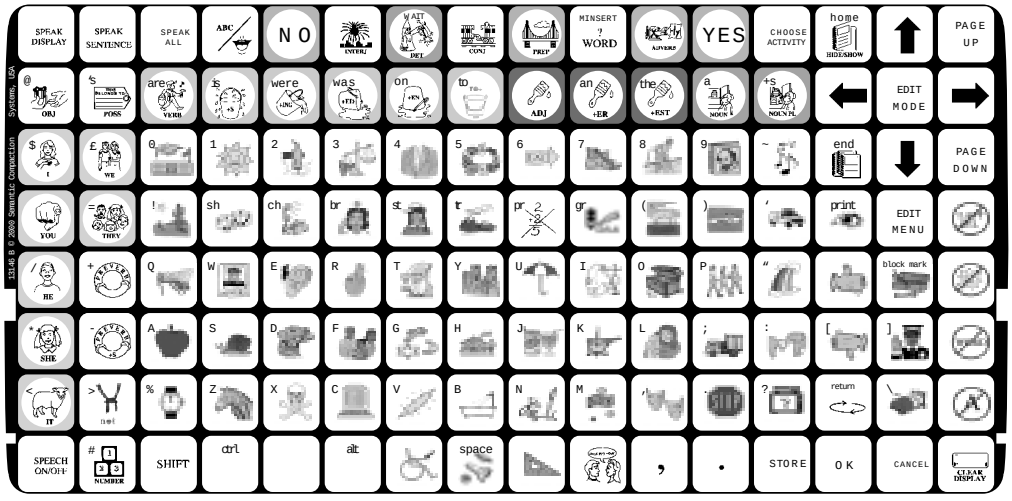


Fig. 2. Unity 128 Version for Pathfinder – Sequenced-Hit overlay

The Single-Hit vocabulary is pre-stored in User Area 1. The Sequenced-Hit overlay is pre-stored in User Area 2. The 32-location Single-Hit vocabulary is in User Area 3 and the 32 Sequenced in User Area 4.

If you want to reload either of these into ANY User area, you can do so via the USER AREA MENU.

1. In the Toolbox, choose USER AREA MENU
2. Select SWITCH USER AREA to go to the area where you want to load the vocabulary
3. Select OVERLAY MENU
4. Choose LOAD UNITY ONE-HIT or LOAD UNITY SEQUENCED-HIT
5. Enter the ZORRO PATTERN – A1, P1, A8, P8, A8, P1, A1
6. Select YES if you are sure you want to erase any current vocabulary in the area you are about to load into
7. Select OK until you are out of the Toolbox

You can save any or all User Areas using the Memory Transfer Interface that comes with you Pathfinder. Refer to the “MTI Manual” for details of how this is done.

Appendix K: Key Assignments for Pathfinder

	Icon/Tool		Assignments	Prompts
A1	SPEAK DISPLAY	Minspeak Mode	<SPEAK DISPLAY>	speak display
		Spell Mode	<SPEAK DISPLAY>	speak display
		Computer Mode	<EMPTY>	<EMPTY>
B1	SPEAK SENTENCE	Minspeak Mode	<SPEAK NEXT SENTENCE>	speak sentence
		Spell Mode	<SPEAK NEXT SENTENCE>	speak sentence
		Computer Mode	<EMPTY>	<EMPTY>
C1	SPEAK ALL	Minspeak Mode	<SPEAK ALL>	speak all
		Spell Mode	<SPEAK ALL>	speak all
		Computer Mode	<EMPTY>	<EMPTY>
D1	SPELL/ MINSPEAK	Minspeak Mode	<SPELL -MINSPEAK>	go to spelling
		Spell Mode	<SPELL -MINSPEAK>	go to Minspeak
		Computer Mode	<GO-TO-MINSPEAK>	go to Minspeak
E1	NO	Minspeak Mode	ICON: NO	no
		Spell Mode	<CANCEL>	no
		Computer Mode	<CLEAR DISPLAY><SERIAL-OFF>Open First Menu <SERIAL-ON><SERIAL-MARKER><MOUSE-SET(MENU 1)>	open first menu
F1	INTERJ	Minspeak Mode	ICON: INTERJ	interjection
		Spell Mode	Pathfinder Unity 128 Sequenced Hit, USA, Version 1.0*	software version
		Computer Mode	<CLEAR DISPLAY><SERIAL-OFF>Open Second Menu <SERIAL-ON><SERIAL-MARKER><MOUSE-SET(MENU 2)>	open second menu
G1	DET	Minspeak Mode	ICON: DET	determiner
		Spell Mode	<WAIT-ANY-KEY> (*return*)	jokes macro
		Computer Mode	<CLEAR DISPLAY><SERIAL-OFF>Open Third Menu <SERIAL-ON><SERIAL-MARKER><MOUSE-SET(MENU 3)>	open third menu

	Icon/Tool		Assignments	Prompts
H1	CONJ	Minspeak Mode	ICON: CONJ	conjunction
		Spell Mode	<EMPTY>	<EMPTY>
		Computer Mode	<CLEAR DISPLAY><SERIAL-OFF>Open Fourth Menu <SERIAL-ON><SERIAL-MARKER><MOUSE-SET(MENU 4)>	open fourth menu
I1	PREP	Minspeak Mode	ICON: PREP	preposition
		Spell Mode	<EMPTY>	<EMPTY>
		Computer Mode	<CLEAR DISPLAY><SERIAL-OFF>Open Fifth Menu <SERIAL-ON><SERIAL-MARKER><MOUSE-SET(MENU 5)>	open fifth menu
J1	?WORD	Minspeak Mode	ICON: ? WORD	question word
		Spell Mode	<MINSERT> (Not in One Hit)	minsert (Not in One Hit)
		Computer Mode	<CLEAR DISPLAY><SERIAL-OFF>Open Sixth Menu <SERIAL-ON><SERIAL-MARKER><MOUSE-SET(MENU 6)>	open sixth menu
K1	ADVERB	Minspeak Mode	ICON: ADVERB	adverb
		Spell Mode	<EMPTY>	<EMPTY>
		Computer Mode	<CLEAR DISPLAY><SERIAL-OFF>Open Seventh Menu <SERIAL-ON><SERIAL-MARKER><MOUSE-SET(MENU 7)>	open seventh menu
L1	YES	Minspeak Mode	YES	yes
		Spell Mode	<OK>	yes
		Computer Mode	<CLEAR DISPLAY><SERIAL-OFF>Open Eighth Menu <SERIAL-ON><SERIAL-MARKER><MOUSE-SET(MENU 8)>	open eighth menu
M1	CHOOSE ACTIVITY	Minspeak Mode	<CHOOSE-ACTIVITY>	choose activity
		Spell Mode	<CHOOSE-ACTIVITY>	choose activity
		Computer Mode	<EMPTY>	<EMPTY>
N1	OPEN/ CLOSE NOTEBOOK HOME	Minspeak Mode	<HIDE/SHOW NOTEBOOK>	hide or show notebook
		Spell Mode	<HIDE/SHOW NOTEBOOK>	hide or show notebook
		Computer Mode	<HOME><SERIAL-MARKER> ←home.	go home

	Icon/Tool		Assignments	Prompts
O1	UP ARROW	Minspeak Mode	<UP><SERIAL-MARKER> ←up.	up arrow
		Spell Mode	<UP><SERIAL-MARKER> ←up.	up arrow
		Computer Mode	<UP><SERIAL-MARKER> ←up.	up arrow
P1	PAGE UP	Minspeak Mode	<PAGE-UP><SERIAL-MARKER>←pageup.	page up
		Spell Mode	<PAGE-UP><SERIAL-MARKER>←pageup.	page up
		Computer Mode	<PAGE-UP><SERIAL-MARKER>←pageup.	page up
A2	OBJ	Minspeak Mode	ICON: OBJ	object
		Spell Mode	@	at sign
		Computer Mode	<EMPTY>	<EMPTY>
B2	POSS	Minspeak Mode	ICON: POSS	possessive
		Spell Mode	‘s	apostrophe s
		Computer Mode	<EMPTY>	<EMPTY>
C2	VERB	Minspeak Mode	ICON: VERB	verb
		Spell Mode	<EMPTY>	<EMPTY>
		Computer Mode	<CLEAR-DISPLAY><SERIAL-OFF>F1 <SERIAL-ON> <SERIAL-MARKER>←F1.	F1
D2	VERB+S	Minspeak Mode	ICON: VERB+S	verb plus s
		Spell Mode	<EMPTY>	<EMPTY>
		Computer Mode	<CLEAR-DISPLAY><SERIAL-OFF>F2 <SERIAL-ON> <SERIAL-MARKER>←F2.	F2
E2	VERB+ING	Minspeak Mode	ICON: VERB+ING	verb plus i n g
		Spell Mode	<EMPTY>	<EMPTY>
		Computer Mode	<CLEAR-DISPLAY><SERIAL-OFF>F3 <SERIAL-ON> <SERIAL-MARKER>←F3.	F3
F2	VERB+ED	Minspeak Mode	ICON: VERB+ED	verb plus e d
		Spell Mode	<EMPTY>	<EMPTY>
		Computer Mode	<CLEAR-DISPLAY><SERIAL-OFF>F4 <SERIAL-ON> <SERIAL-MARKER>←F4.	F4

	Icon/Tool		Assignments	Prompts
G2	VERB+EN	Minspeak Mode	ICON: VERB+EN	verb plus e n
		Spell Mode	<EMPTY>	<EMPTY>
		Computer Mode	<CLEAR-DISPLAY><SERIAL-OFF>F5 <SERIAL-ON> <SERIAL-MARKER>←F5.	F5
H2	TO+VERB	Minspeak Mode	ICON: TO+VERB	2 plus verb
		Spell Mode	<EMPTY>	<EMPTY>
		Computer Mode	<CLEAR-DISPLAY><SERIAL-OFF>F6 <SERIAL-ON> <SERIAL-MARKER>←F6.	F6
I2	ADJ	Minspeak Mode	ICON: ADJ	adjective
		Spell Mode	<EMPTY>	<EMPTY>
		Computer Mode	<CLEAR-DISPLAY><SERIAL-OFF>F7 <SERIAL-ON> <SERIAL-MARKER>←F7.	F7
J2	ADJ+ER	Minspeak Mode	ICON: ADJ+ER	e r adjective
		Spell Mode	<EMPTY>	<EMPTY>
		Computer Mode	<CLEAR-DISPLAY><SERIAL-OFF>F8 <SERIAL-ON> <SERIAL-MARKER>←F8.	F8
K2	ADJ+EST	Minspeak Mode	ICON: ADJ+EST	e s t adjective
		Spell Mode	<EMPTY>	<EMPTY>
		Computer Mode	<CLEAR-DISPLAY><SERIAL-OFF>F9 <SERIAL-ON> <SERIAL-MARKER>←F9.	F9
L2	NOUN	Minspeak Mode	ICON: NOUN	noun
		Spell Mode	<EMPTY>	<EMPTY>
		Computer Mode	<CLEAR-DISPLAY><SERIAL-OFF>F10 <SERIAL-ON> <SERIAL-MARKER>←F10.	F10
M2	NOUN PL	Minspeak Mode	ICON: NOUN PLURAL	plural
		Spell Mode	<EMPTY>	<EMPTY>
		Computer Mode	<CLEAR-DISPLAY><SERIAL-OFF>F11 <SERIAL-ON> <SERIAL-MARKER>←F11.	F11
N2	LEFT ARROW	Minspeak Mode	<LEFT><SERIAL-MARKER> ←left.	left arrow
		Spell Mode	<LEFT><SERIAL-MARKER> ←left.	left arrow
		Computer Mode	<LEFT><SERIAL-MARKER> ←left.	left arrow

	Icon/Tool		Assignments	Prompts
O2	EDIT MODE	Minspeak Mode	<EDIT-MODE>	edit mode
		Spell Mode	<EDIT-MODE>	edit mode
		Computer Mode	<EDIT-MODE>	edit mode
P2	RIGHT ARROW	Minspeak Mode	<RIGHT><SERIAL-MARKER>←right.	right arrow
		Spell Mode	<RIGHT><SERIAL-MARKER>←right.	right arrow
		Computer Mode	<RIGHT><SERIAL-MARKER>←right.	right arrow
A3	I	Minspeak Mode	ICON: I	I pronoun
		Spell Mode	$	dollar sign
		Computer Mode	<SERIAL-MARKER>←esc.	escape
B3	WE	Minspeak Mode	ICON: WE	we
		Spell Mode	£	British pound sign
		Computer Mode	<EMPTY>	<EMPTY>
C3	KNOW	Minspeak Mode	ICON: KNOW	know at school
		Spell Mode	0	0
		Computer Mode	<EMPTY>	<EMPTY>
D3	SUN	Minspeak Mode	ICON: SUN	sun
		Spell Mode	1	1
		Computer Mode	<SERIAL-MARKER><MOUSE-MOVE(LG Up Lft)>	mouse move large up and left
E3	HAMMER	Minspeak Mode	ICON: HAMMER	hammer
		Spell Mode	2	2
		Computer Mode	<SERIAL-MARKER><MOUSE-MOVE(Up Up Lft)>	mouse move up, up, and left
F3	SCALES	Minspeak Mode	ICON: SCALES	scales
		Spell Mode	3	3
		Computer Mode	<SERIAL-MARKER><MOUSE-MOVE(LG Up)>	mouse move large up
G3	SUIT	Minspeak Mode	ICON: SUIT	suit
		Spell Mode	4	4
		Computer Mode	<SERIAL-MARKER><MOUSE-MOVE(Up Up Rt)>	mouse move up, up, and right

	Icon/Tool		Assignments	Prompts
H3	FLOWERS	Minspeak Mode	ICON: FLOWERS	flowers
		Spell Mode	5	5
		Computer Mode	<SERIAL-MARKER><MOUSE-MOVE(LG Up Rt)>	mouse move large up and right
I3	EXIT	Minspeak Mode	ICON: EXIT	exit
		Spell Mode	6	6
		Computer Mode	<EMPTY>	<EMPTY>
J3	SHOE	Minspeak Mode	ICON: SHOE	shoe
		Spell Mode	7	7
		Computer Mode	<EMPTY>	<EMPTY>
K3	BOY	Minspeak Mode	ICON: BOY	boy
		Spell Mode	8	8
		Computer Mode	<EMPTY>	<EMPTY>
L3	BOOK	Minspeak Mode	ICON: BOOK	book
		Spell Mode	9	9
		Computer Mode	<EMPTY>	<EMPTY>
M3	MUSIC	Minspeak Mode	ICON: MUSIC	music
		Spell Mode	~	tilde
		Computer Mode	<CLEAR-DISPLAY><SERIAL-OFF>F12 <SERIAL-ON> <SERIAL-MARKER>←F12.	F12
N3	NOTEBOOK	Minspeak Mode	ICON: NOTEBOOK	notebooks
		Spell Mode	<END><SERIAL-MARKER> ←end.	end
		Computer Mode	<END><SERIAL-MARKER> ←end.	end
O3	DOWN ARROW	Minspeak Mode	<DOWN><SERIAL-MARKER> ←down.	down arrow
		Spell Mode	<DOWN><SERIAL-MARKER> ←down.	down arrow
		Computer Mode	<DOWN><SERIAL-MARKER> ←down.	down arrow
P3	PAGE DOWN	Minspeak Mode	<PAGE-DOWN><SERIAL-MARKER> ←pagedown.	page down
		Spell Mode	<PAGE-DOWN><SERIAL-MARKER> ←pagedown.	page down
		Computer Mode	<PAGE-DOWN><SERIAL-MARKER> ←pagedown.	page down

	Icon/Tool		Assignments	Prompts
A4	YOU	Minspeak Mode	ICON: YOU	you
		Spell Mode	<EMPTY>	<EMPTY>
		Computer Mode	<SERIAL-MARKER>←tab.	tab
B4	THEY	Minspeak Mode	ICON: THEY	they
		Spell Mode	=	equal sign
		Computer Mode	<EMPTY>	<EMPTY>
C4	CACTUS	Minspeak Mode	ICON: CACTUS	cactus
		Spell Mode	!	exclamation mark
		Computer Mode	<EMPTY>	<EMPTY>
D4	DICE	Minspeak Mode	ICON: DICE	dice
		Spell Mode	sh	s h
		Computer Mode	<SERIAL-MARKER><MOUSE-MOVE(Lft Up Lft)>	mouse move left, up, left
E4	PHONE	Minspeak Mode	ICON: PHONE	phone
		Spell Mode	ch	c h
		Computer Mode	<SERIAL-MARKER><MOUSE-MOVE(SM Up Lft)>	mouse move small up and left
F4	THINK	Minspeak Mode	ICON: THINK	think
		Spell Mode	br	b r
		Computer Mode	<SERIAL-MARKER><MOUSE-MOVE(SM Up)>	mouse move small up
G4	GIRL	Minspeak Mode	ICON: GIRL	girl
		Spell Mode	st	s t
		Computer Mode	<SERIAL-MARKER><MOUSE-MOVE(SM Up Rt)>	mouse move small up and right
H4	MOUNTAIN	Minspeak Mode	ICON: MOUNTAIN	mountain
		Spell Mode	tr	t r
		Computer Mode	<SERIAL-MARKER><MOUSE-MOVE(Rt Up Rt)>	mouse move right, up, right
I4	WRONG	Minspeak Mode	ICON: WRONG	wrong
		Spell Mode	pr	p r
		Computer Mode	<EMPTY>	<EMPTY>

	Icon/Tool		Assignments	Prompts
J4	FROG	Minspeak Mode	ICON: FROG	frog
		Spell Mode	gr	g r
		Computer Mode	<EMPTY>	<EMPTY>
K4	MORNING	Minspeak Mode	ICON: MORNING	morning
		Spell Mode	(	left parenthesis
		Computer Mode	<EMPTY>	<EMPTY>
L4	NIGHT	Minspeak Mode	NIGHT	night
		Spell Mode	)	right parenthesis
		Computer Mode	<EMPTY>	<EMPTY>
M4	MEDICAL	Minspeak Mode	ICON: MEDICAL	medical
		Spell Mode	‘	apostrophe
		Computer Mode	<SERIAL-MARKER> ←dblclick.	double click
N4	EYE	Minspeak Mode	ICON: EYE	eye
		Spell Mode	(*return*) <CLEAR-DISPLAY>	print
		Computer Mode	<SERIAL-MARKER>←delete.	delete
O4	EDIT MENU	Minspeak Mode	<EDIT-MENU>	edit menu
		Spell Mode	<EDIT-MENU>	edit menu
		Computer Mode	<EMPTY>	<EMPTY>
P4	DELETE LAST SELECTION	Minspeak Mode	<DELETE-LAST-SELECTION>	delete last selection
		Spell Mode	<DELETE-LAST-SELECTION>	delete last selection
		Computer Mode	<DELETE-LAST-SELECTION>	delete last selection
A5	HE	Minspeak Mode	ICON: HE	he
		Spell Mode	/	forward slash
		Computer Mode	<EMPTY>	<EMPTY>
B5	PREVERB	Minspeak Mode	ICON: PREVERB	preverb
		Spell Mode	+	plus sign
		Computer Mode	<EMPTY>	<EMPTY>

	Icon/Tool		Assignments	Prompts
C5	QUEENBEE	Minspeak Mode	ICON: QUEENBEE	queenbee
		Spell Mode	q	q
		Computer Mode	<EMPTY>	<EMPTY>
D5	WANTED	Minspeak Mode	ICON: WANTED	wanted
		Spell Mode	w	w
		Computer Mode	<SERIAL-MARKER><MOUSE-MOVE(LG Left)>	mouse move large left
E5	EAR	Minspeak Mode	ICON: EAR	ear
		Spell Mode	e	e
		Computer Mode	<SERIAL-MARKER><MOUSE-MOVE(sm Left)>	mouse move small left
F5	REMEMBER	Minspeak Mode	ICON: REMEMBER	remember
		Spell Mode	r	r
		Computer Mode	<SERIAL-MARKER>←,click.	click
G5	TIME	Minspeak Mode	ICON: TIME	time
		Spell Mode	t	t
		Computer Mode	<SERIAL-MARKER><MOUSE-MOVE(SM Right)>	mouse move small right
H5	YORK	Minspeak Mode	ICON: YORK	York
		Spell Mode	y	y
		Computer Mode	<SERIAL-MARKER><MOUSE-MOVE(LG Right)>	mouse move large right
I5	UMBRELLA	Minspeak Mode	ICON: UMBRELLA	umbrella
		Spell Mode	u	u
		Computer Mode	<EMPTY>	<EMPTY>
J5	ISLAND	Minspeak Mode	ICON: ISLAND	island
		Spell Mode	i	I
		Computer Mode	<SERIAL-MARKER><MOUSE-SET(Upper Lft)>	mouse go upper left
K5	OPEN	Minspeak Mode	ICON: OPEN	open
		Spell Mode	o	o
		Computer Mode	<SERIAL-MARKER><MOUSE-SET(Upper Cntr)>	mouse go upper center

	Icon/Tool		Assignments	Prompts
L5	PEOPLE	Minspeak Mode	PEOPLE	people
		Spell Mode	p	p
		Computer Mode	<SERIAL-MARKER><MOUSE-SET(Upper Rr)>	mouse go upper right
M5	RAINBOW	Minspeak Mode	ICON: RAINBOW	rainbow
		Spell Mode	"	quotation mark
		Computer Mode	<EMPTY>	<EMPTY>
N5	THUMBS UP	Minspeak Mode	ICON: THMBS UP	thumbs up
		Spell Mode	<INSERT-TOOL>	insert tool
		Computer Mode	<CLEAR-DISPLAY><SERIAL-OFF>Mouse Button Up <SERIAL-ON><SERIAL-MARKER> ←,mourel.	mouse button up
O5	TOOLS	Minspeak Mode	ICON: TOOLS	tools
		Spell Mode	<BLOCK-MARK>	block mark
		Computer Mode	<EMPTY>	<EMPTY>
P5	DELETE ICON	Minspeak Mode	<DELETE-ICON>	delete icon
		Spell Mode	<EMPTY>	<EMPTY>
		Computer Mode	<EMPTY>	<EMPTY>
A6	SHE	Minspeak Mode	ICON: SHE	she
		Spell Mode	*	asterisk
		Computer Mode	<SERIAL-OFF><SPEECH-MARKER>reset tee tam <TEXT/ SPEECH-MARKER> <SERIAL-ON><SERIAL-MARKER> N N N U U U	reset tee tam
B6	PREVERB+S	Minspeak Mode	ICON: PREVERB+S	preverb plus s
		Spell Mode	-	minus sign
		Computer Mode	<EMPTY>	<EMPTY>
C6	APPLE	Minspeak Mode	ICON: APPLE	apple
		Spell Mode	a	a
		Computer Mode	<EMPTY>	<EMPTY>

	Icon/Tool		Assignments	Prompts
D6	SNAIL	Minspeak Mode	ICON: SNAIL	snail
		Spell Mode	s	s
		Computer Mode	<SERIAL-MARKER><MOUSE-MOVE(Lft Dn Lft)>	mouse move left down and left
E6	DOG	Minspeak Mode	ICON: DOG	dog
		Spell Mode	d	d
		Computer Mode	<SERIAL-MARKER><MOUSE-MOVE(SM Dn Lft)>	mouse move small down and left
F6	FAMILY	Minspeak Mode	ICON: FAMILY	family
		Spell Mode	f	f
		Computer Mode	<SERIAL-MARKER><MOUSE-MOVE(SM Down)>	mouse move small down
G6	GOD	Minspeak Mode	ICON: GOD	god
		Spell Mode	g	g
		Computer Mode	<SERIAL-MARKER><MOUSE-MOVE(SM Dn Rt)>	mouse move small down and right
H6	HOUSE	Minspeak Mode	ICON: HOUSE	house
		Spell Mode	h	h
		Computer Mode	<SERIAL-MARKER><MOUSE-MOVE(Rt Dn Rt)>	mouse move right down and right
I6	JUICE	Minspeak Mode	ICON: JUICE	juice
		Spell Mode	j	j
		Computer Mode	<EMPTY>	<EMPTY>
J6	KITCHEN	Minspeak Mode	ICON: KITCHEN	kitchen
		Spell Mode	k	k
		Computer Mode	<SERIAL-MARKER><MOUSE-SET(Middle Lft)>	mouse go middle left
K6	LOVE	Minspeak Mode	ICON: LOVE	love
		Spell Mode	l	l
		Computer Mode	<SERIAL-MARKER><MOUSE-SET(Center)>	mouse go center
L6	TRUCK	Minspeak Mode	ICON: TRUCK	truck
		Spell Mode	;	semi colon
		Computer Mode	<SERIAL-MARKER><MOUSE-SET(Middle Rt)>	mouse go middle right

	Icon/Tool		Assignments	Prompts
M6	ELEPHANTS	Minspeak Mode	ICON: ELEPHANT	elephant
		Spell Mode	:	colon
		Computer Mode	<EMPTY>	<EMPTY>
N6	THUMBS DOWN	Minspeak Mode	ICON: THMBS DN	thumbs down
		Spell Mode	[	left bracket
		Computer Mode	<CLEAR-DISPLAY><SERIAL-OFF>Mouse Button Down <SERIAL-ON><SERIAL-MARKER> ←,moulock.	mouse button down
O6	POLICE	Minspeak Mode	ICON: POLICE	police
		Spell Mode	]	right bracket
		Computer Mode	<EMPTY>	<EMPTY>
P6	DELETE WORD	Minspeak Mode	<DELETE-WORD><SERIAL-MARKER> <IBM-MARKER> ←,hold,ctrl. ←backspace. <MAC-MARKER> ←,hold,command,option. ←backspace.	delete word
		Spell Mode	<DELETE-WORD>	delete word
		Computer Mode	<DELETE-WORD><SERIAL-MARKER> <IBM-MARKER> ←,hold,ctrl. ←backspace. <MAC-MARKER> ←,hold,command,option. ←backspace.	delete word
A7	IT	Minspeak Mode	ICON: IT	it
		Spell Mode	<	left angle
		Computer Mode	<EMPTY>	<EMPTY>
B7	KNOT	Minspeak Mode	ICON: KNOT	knot
		Spell Mode	>	right angle
		Computer Mode	<EMPTY>	<EMPTY>
C7	WATCH	Minspeak Mode	ICON: WATCH	watch
		Spell Mode	%	percent sign
		Computer Mode	<EMPTY>	<EMPTY>

	Icon/Tool		Assignments	Prompts
D7	ZEBRA	Minspeak Mode	ICON: ZEBRA	zebra
		Spell Mode	z	z
		Computer Mode	<SERIAL-MARKER><MOUSE-MOVE(LG Dn Lft)>	mouse move large down and left
E7	X-RAY	Minspeak Mode	ICON: X-RAY	x ray
		Spell Mode	x	x
		Computer Mode	<SERIAL-MARKER><MOUSE-MOVE(Dn Dn Lft)>	mouse move down down left
F7	COMPUTER	Minspeak Mode	ICON: COMPUTER	computer
		Spell Mode	c	c
		Computer Mode	<SERIAL-MARKER><MOUSE-MOVE(Lg Down)>	mouse move large down
G7	VOLT	Minspeak Mode	ICON: VOLT	volt
		Spell Mode	v	v
		Computer Mode	<SERIAL-MARKER><MOUSE-MOVE(Dn Dn Rt)>	mouse move down down right
H7	BATH	Minspeak Mode	ICON: BATH	bath
		Spell Mode	b	b
		Computer Mode	<SERIAL-MARKER><MOUSE-MOVE(Lg Dn Rt)>	mouse move large down and right
I7	NAME	Minspeak Mode	ICON: NAME	name
		Spell Mode	n	n
		Computer Mode	<EMPTY>	<EMPTY>
J7	MONEY	Minspeak Mode	ICON: MONEY	money
		Spell Mode	m	m
		Computer Mode	<SERIAL-MARKER><MOUSE-SET(Lower Lft)>	mouse go lower left
K7	MASKS	Minspeak Mode	ICON: MASKS	masks
		Spell Mode	,	comma
		Computer Mode	<SERIAL-MARKER><MOUSE-SET(Lower Cntr)>	mouse go lower center
L7	STOP	Minspeak Mode	ICON: STOP	stop
		Spell Mode	.	period
		Computer Mode	<SERIAL-MARKER><MOUSE-SET(Lower Rt)>	mouse go lower right

	Icon/Tool		Assignments	Prompts
M7	TV	Minspeak Mode	ICON: TV	TV
		Spell Mode	?	question mark
		Computer Mode	<EMPTY>	<EMPTY>
N7	RETURN	Minspeak Mode	ICON: RETURN	return
		Spell Mode	*(return)* <SERIAL-MARKER> ←return.	return
		Computer Mode	*(return)* <SERIAL-MARKER> ←return.	return
O7	BED	Minspeak Mode	ICON: BED	bed
		Spell Mode	\	backslash
		Computer Mode	<EMPTY>	<EMPTY>
P7	DELETE CHARA	Minspeak Mode	<DELETE-CHARACTER> <SERIAL-MARKER> ←backspace.	delete character
		Spell Mode	<DELETE-CHARACTER> <SERIAL-MARKER> ←backspace.	delete character
		Computer Mode	<DELETE-CHARACTER> <SERIAL-MARKER> ←backspace.	delete character
A8	SPEECH ON/OFF	Minspeak Mode	<SPEECH-ON/OFF>	speech on off
		Spell Mode	<SPEECH-ON/OFF>	speech on off
		Computer Mode	<SPEECH-ON/OFF>	speech on off
B8	NUMBER	Minspeak Mode	ICON: NUMBER	number
		Spell Mode	#	number sign
		Computer Mode	<EMPTY>	<EMPTY>
C8	SHIFT	Minspeak Mode	<SHIFT><SERIAL-MARKER> ←,hold,shift.	shift
		Spell Mode	<SHIFT><SERIAL-MARKER> ←,hold,shift.	shift
		Computer Mode	<SHIFT><SERIAL-MARKER> ←,hold,shift.	shift
D8	ICON_D8	Minspeak Mode	ICON: ICON_D8	Icon D8
		Spell Mode	<CTRL><SERIAL-MARKER> ←,hold,control.	control
		Computer Mode	<CTRL><SERIAL-MARKER> ←,hold,control.	control

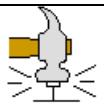
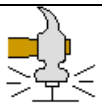
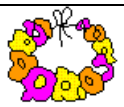
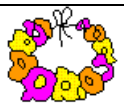
	Icon/Tool		Assignments	Prompts
E8	ICON_E8	Minspeak Mode	ICON: ICON_E8	Icon E8
		Spell Mode	<CLEAR-DISPLAY><IBM-MARKER>←,combine,control, esc.<MAC-MARKER. ←,hold,command.	command start menu
		Computer Mode	<CLEAR-DISPLAY><IBM-MARKER>←,combine,control, esc.<MAC-MARKER. ←,hold,command.	command start menu
F8	ICON_F8	Minspeak Mode	ICON: ICON_F8	Icon F8
		Spell Mode	<CLEAR-DISPLAY><SERIAL-OFF>Option <SERIAL-ON><SERIAL-MARKER><IMB-MARKER>←,hold,alt.<MAC-MARKER>←,hold,option.	alt
		Computer Mode	<CLEAR-DISPLAY><SERIAL-OFF>Option <SERIAL-ON><SERIAL-MARKER><IMB-MARKER>←,hold,alt.<MAC-MARKER>←,hold,option.	alt
G8	CHAIR	Minspeak Mode	ICON: CHAIR	chair
		Spell Mode	<SPACE>	space
		Computer Mode	<EMPTY>	<EMPTY>
H8	SPACE	Minspeak Mode	ICON: SPACE	space
		Spell Mode	<SPACE>	space
		Computer Mode	<SPACE>	space
I8	TRIANGLE	Minspeak Mode	ICON: TRIANGLE	triangle
		Spell Mode	<SPACE>	space
		Computer Mode	<SERIAL-MARKER> ←,click,right.	right click
J8	SENTENCE	Minspeak Mode	IOCN: SENTENCE	sentence
		Spell Mode	<EMPTY>	<EMPTY>
		Computer Mode	<EMPTY>	<EMPTY>
K8	, (COMMA)	Minspeak Mode	<DELETE-CHARACTER> <SERIAL-MARKER> ←backspace.<TEXT-MARKER>,	comma
		Spell Mode	,*(space)*	comma
		Computer Mode	<EMPTY>	<EMPTY>

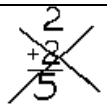
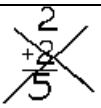
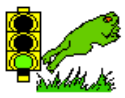
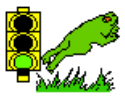
	Icon/Tool		Assignments	Prompts
L8	. (PERIOD)	Minspeak Mode	<DELETE-CHARACTER> <SERIAL-MARKER> ←backspace.<TEXT-MARKER>. <CTRL><SPEAK-SENTENCE><SHIFT>	period
		Spell Mode	. *(space) (space)*	period
		Computer Mode	<EMPTY>	<EMPTY>
M8	STORE	Minspeak Mode	<STORE-CORE>	store core
		Spell Mode	<STORE-CORE>	store core
		Computer Mode	<EMPTY>	<EMPTY>
N8	OK	Minspeak Mode	<OK>	okay
		Spell Mode	<OK>	okay
		Computer Mode	<OK>	okay
O8	CANCEL	Minspeak Mode	<CANCEL>	cancel
		Spell Mode	<CANCEL>	cancel
		Computer Mode	<CANCEL>	cancel
P8	CLEAR DISPLAY	Minspeak Mode	<CLEAR-DISPLAY>	clear display
		Spell Mode	<CLEAR-DISPLAY>	clear display
		Computer Mode	<CLEAR-DISPLAY>	clear display

*One Hit says: Pathfinder *Unity* 128 Single-Hit, USA, Version 1.0

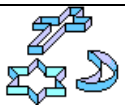
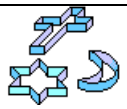
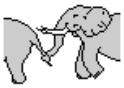
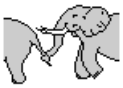
Appendix L: Dynamic Activities for Single-Hit

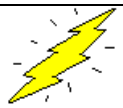
Activities have been created and added to all of the vocabulary icons to increase the communication possibilities for the Single-Hit vocabulary. These activities can be modified as needed. They are easily identified. The icon used for each activity is the same as the icon on the overlay and the label is the same as the word that icon produces. Note: These activities are arranged in the order in which they appear on the overlay.

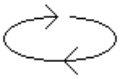
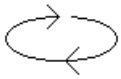
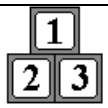
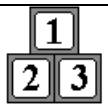
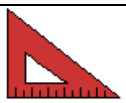
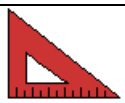
Icon	Word Generated	Dynamic Activity
	know	KNOW…
	like	LIKE…
	work	 WORK…
	fat	FAT…
	clothing	CLOTHING..
	give	 GIVE…
	right	RIGHT…
	walk	WALK…
	wet	WET…

	Icon	Word Generated	Dynamic Activity
		read	READ…
		more	MORE…
		dry	DRY…
		little	LITTLE…
		say	SAY…
		think	THINK…
		fall	FALL…
		wrong	 WRONG…
		go	 GO…
		get	GET…
		wish	WISH…
		help	HELP…

	Icon	Word Generated	Dynamic Activity
		look	LOOK…
		be	BE…
		want	WANT…
		hear	HEAR…
		do	DO…
		take	TAKE…
		building	BUILDING..
		need	NEED…
		place	PLACE…
		put	PUT…
		follow	FOLLOW…
		color	COLOR…

	Icon	Word Generated	Dynamic Activity
		good	GOOD…
		eat	EAT…
		slow	SLOW…
		come	COME…
		family	FAMILY…
		make	 MAKE…
		home	HOME…
		drink	DRINK…
		hot	HOT…
		new	NEW…
		drive	DRIVE…
		big	 BIG…

	Icon	Word Generated	Dynamic Activity
		bad	BAD…
		let	LET…
		start	START…
		animal	ANIMAL…
		store	STORE…
		fast	 FAST…
		wash	WASH…
		write	WRITE…
		have	HAVE…
		feel	FEEL…
		stop	STOP…
		ask	ASK…

	Icon	Word Generated	Dynamic Activity
		turn	 TURN…
		sleep	SLEEP…
		count	 COUNT…
		sit	SIT…
		try	 TRY…

Dynamic Activities ON/OFF:

Some individuals may not want to have dynamic activities attached to their vocabulary icons. These dynamic activities can easily be turned OFF or ON through the ACTIVITY MENU.

To turn the Dynamic Activities OFF

1. Go into the ACITVITY MENU
2. Select 3 (DYNAMIC ACTIVITY)
3. Select 4 (Dynamic Activity). It changes from ON to OFF
4. Select 8 (OK)

To turn the Dynamic Activities ON

5. Go into the ACITVITY MENU
6. Select 3 (DYNAMIC ACTIVITY)
7. Select 4 (Dynamic Activity). It changes from OFF to ON
8. Select 8 (OK)

Appendix M: Activities Pre-stored in Sequenced-Hit

This chart lists activities that were created for Pathfinder *Unity* 128. The screens of activities are found in the Toolbox under the Activity Menu, followed by the Modify Activity Menu. When additional activities are created, they are added to the screens in the Toolbox, so the appearance may vary.

Screen 1:

GREETINGS	ME	CIRCLE	PLAY CAR	UNO	DESKMATE	REMOTES	TOOLS
PEOPLE	FAMILY	FAMILY SUB	MARRIAGE	GRANDFAM	STEPFAM	RELATIVES	BODY
BODY INT	BODY 2	BODY HEAD	BODY ARM	BODY LEG	TORSO	JOBS	CLOTHES

Screen 2:

ACCESSORY	CL PARTS	NAMES	NAME PARTS	FAMILY NM.	FRIEND NM.	SCHOOL NM.	OFFICE NM.
BUILDINGS	BLD PARTS	AT HOME	ROOMS	FURNITURE	APPLIANCE	LG APPLIANCE	UTENSILS
PLACES	TOILETRY	LINEN	COMPUTER	ASST TEC	CHR PARTS	DEVICES	ECU

Screen 3:

CD	EZ PHONE	TAPE	TUNER	TV	VCR	X10	ANIMALS
AN. BABY	AN. BIRD	AN. DINO	AN. FARM	AN. HOMES	INSECTS	AN. PARTS	AN. PETS
AN. WATER	AN. ZOO	FOODS	CONDIMENTS	FD. DAIRY	DESSERT	FD. FLAVOR	FD. FRUITS

Screen 4:

FD. GRAINS	FD. MEAT	FD. MEXI	FD. PASTA	FD. SNACK	FD. VEGET	DRINKS	MEALS
CIR DAYS	CIR MONTH	CIR WEATH	SONGS	KID SONG	HOL SONG	ADU SONG	CLASSES
SPORTS	ART/OFFICE	TV SHOWS	CAR RELAT.	VEH. AIR	VEH. LAND	VEH. PARTS	VEH. WATER

Screen 5:

ROADS	SIGNS	BOOKS	BK. PARTS	CLOCK	TIME PARTS	MUSIC INSTR.	MU. EQUIP
CALENDAR	DAYS	MONTHS	TIME	TIME PIECE	SEASONS	WEATHER	WEATH. SNOW
WATER	NATURE	NATURE	DIRECTION	PLA SUB	FEELINGS	MEDICINE	CONTAINER

Screen 6:

COLORS	HOLIDAYS	HAPPY HOL.	DECORATE	MONEY	SHAPES	TOYS	PLAYING
TOOLS	SENT BUILD	FRIENDS	GREET	JOKES	MED. SENT.	PERSONAL	PROTEST
QUESTIONS	REPAIR	SCH SENT	SPEAKING	WANT	SENTENCE	SENT. BUILD1	SENT. BUILD2

Screen 7:

SENT. BUILD3	SENT. BUILD4	SENT. BUILD5	SENT. BUILD6	SENT. BUILD7	SENT. BUILD8	SENT. BUILD9	SENT. BUILD10
SENT. BUILD11	SENT. BUILD12	SENT. BUILD13	SENT. BUILD14	SENT. BUILD15	SENT. BUILD16		

Appendix N: Auditory Prompts in Pathfinder

There are three kinds of Auditory Prompts (Key, Content, Mid-Sequence).

Key Prompts:
The Key Prompts are the Minspeak mode assignments. These are listed in the Pathfinder Key Assignments.

Category Prompts:
The Category Prompts are:

Row Prompts:	row 1, row 2, row 3, etc.
Column Prompts:	column 1, column 2, column 3, etc.
Quadrant Prompts:	block 1, block 2, block 3, etc.

First Icon(s)	Next Icon	Auditory Prompt
APPLE	APPLE	Grow / fruit
APPLE	CACTUS	Mexican foods
APPLE	DOG	Bite
APPLE	FLOWERS	Crisp / vegetables
APPLE	KITCHEN	Condiments
APPLE	MEDICAL	Delicious / pastas
APPLE	MORNING	Cereals and grains
APPLE	RAINBOW	Taste / flavors
APPLE	SCALES	Meats
APPLE	THMBS DN	Sour
APPLE	THMBS UP	Sweet / desserts
APPLE	TV	Snacks
APPLE	ZEBRA	Chew / dairy
BATH	BATH	Shower
BATH	BED	Dust
BATH	BOY	Comb
BATH	CACTUS	Dry
BATH	EAR	Wax
BATH	ELEPHANT	Vacuum
BATH	GIRL	Brush
BATH	HAMMER	Flush
BATH	HOUSE	Clean
BATH	ISLAND	Rinse
BATH	KITCHEN	Mop
BATH	NIGHT	Sweep
BATH	PEOPLE	Scrub
BATH	THMBS DN	Dirty
BATH	TRUCK	Wipe
BED	BED	Asleep
BED	FROG	Stretch
BED	LOVE	Cover
BED	MORNING	Wake
BED	MUSIC	Rest
BED	SUN	Yawn
BED	THMBS DN	Lie
BED	TIME	Snore
BOOK	BOOK	Kinds of books
BOOK	KNOT	Won't

First Icon(s)	Next Icon	Auditory Prompt
BOOK	TRIANGLE	Parts of books
BOY	BOY	Body parts
BOY	X-RAY	Internal body parts
CACTUS	CACTUS	Exclamation mark
CHAIR	CHAIR	Assistive technology
CHAIR	COMPUTER	Device / language technology
CHAIR	HOUSE	Environmental control
CHAIR	PHONE	Communication device
CHAIR	TRIANGLE	Wheelchair parts
CHAIR	YORK	Accessible
COMPUTER	TRIANGLE	Computer parts
DICE	DICE	Match / small
DICE	JUICE	Thin
DICE	LOVE	Tiny
DICE	MOUNTAIN	Narrow
DICE	PEOPLE	Party
DICE	THMBS DN	Lose
DICE	THMBS UP	Win
DICE	WRONG	Score
DOG	BOOK	Carry
DOG	DOG	Bring
DOG	KNOW	Receive
EAR	EAR	Listen
EAR	MUSIC	Sound
EAR	PEOPLE	Noise
EAR	PHONE	Ring
EAR	THMBS DN	Quiet
EAR	THMBS UP	Loud
ELEPHANT	BOOK	Thick
ELEPHANT	BOY	Wide
ELEPHANT	ELEPHANT	Pull / large / conference
ELEPHANT	KNOT	Might not
ELEPHANT	POLICE	Push
ELEPHANT	SCALES	Heavy
ELEPHANT	THMBS UP	Lift / strong
ELEPHANT	THMBS DN	Drop / weak
ELEPHANT	TRUCK	Power
ELEPHANT	YORK	Huge
EXIT	DOG	Stay
EXIT	EXIT	Excuse
EXIT	HOUSE	Arrive
EXIT	MONEY	Send
EXIT	YORK	Enter
EYE	EYE	See / alike
EYE	TV	Show
EYE	WATCH	Watch
FAMILY	BOY	Stepfamily
FAMILY	FAMILY	Gather / family / parent
FAMILY	KNOT	Didn't
FAMILY	LOVE	Adopt
FAMILY	OPEN	Foster
FAMILY	PEOPLE	Relatives
FAMILY	REMEMBER	Immediate family
FAMILY	TIME	Grand family

First Icon(s)	Next Icon	Auditory Prompt
FLOWERS	FLOWERS	Thank / kind
FLOWERS	KNOT	May not
FROG	KNOT	Not going
FROG	VOLT	Hurry
FROG	YORK	Rush
GOD	GOD	Celebrate / holiday
GOD	PEOPLE	Care
GOD	SUN	Vacation
HAMMER	HAMMER	Hit / tool
HAMMER	KITCHEN	Prepare
HAMMER	KNOT	Mustn't
HAMMER	KNOW	Complete
HAMMER	MOUNTAIN	Achieve
HAMMER	MUSIC	Practice
HAMMER	NAME	Resume
HAMMER	POLICE	Hire
HAMMER	RETURN	Bend
HAMMER	SCALES	Manage
HAMMER	SPACE	Accomplish
HAMMER	STOP	Finish
HAMMER	SUIT	Adjust
HAMMER	THINK	Use
HAMMER	TRUCK	Fix
HAMMER	TV	Break
HAMMER	WANTED	Abuse
HOUSE	BATH	Toiletries
HOUSE	BED	Comfort / furniture
HOUSE	HOUSE	Rooms & things in a house
HOUSE	FLOWERS	Decorate
HOUSE	KITCHEN	Kitchen items
HOUSE	KNOT	Wouldn't
HOUSE	LOVE	Linens
HOUSE	MOUNTAIN	Cozy
HOUSE	PHONE	Small appliances
HOUSE	VOLT	Large appliances
INTERJ.	GOD	Holiday greetings
ISLAND	EAR	East
ISLAND	ISLAND	Water places another
ISLAND	MOUNTAIN	Places on earth
ISLAND	NAME	North
ISLAND	SNAIL	South
ISLAND	THMBS DN	Far
ISLAND	THMBS UP	Near
ISLAND	WANTED	West
ISLAND	YORK	World places with buildings
JUICE	FLOWERS	Swallow
JUICE	JUICE	Beverages
JUICE	KNOT	Can't
JUICE	POLICE	Enough
JUICE	THMBS DN	Blow / empty
JUICE	THMBS UP	Suck / full
KITCHEN	DICE	Shake
KITCHEN	FLOWERS	Mild
KITCHEN	JUICE	Pour

First Icon(s)	Next Icon	Auditory Prompt
KITCHEN	KITCHEN	Bake
KITCHEN	MOUNTAIN	Cold
KITCHEN	MUSIC	Beat
KITCHEN	RAINBOW	Mix
KITCHEN	RETURN	Stir
KITCHEN	THMBS DN	Cool
KITCHEN	THMBS UP	warm
KNOW	BOOK	Study
KNOW	DICE	Cheat
KNOW	DOG	Teach
KNOW	HAMMER	Learn
KNOW	HOUSE	Homework
KNOW	KNOT	Not know
KNOW	KNOW	Classes
KNOW	THMBS DN	False
KNOW	THMBS UP	True
LOVE	LOVE	Hug / young
LOVE	SUN	Kiss
LOVE	THMBS DN	Reject
LOVE	THMBS UP	Accept
MASKS	DOG	Nervous
MASKS	FROG	Excite
MASKS	GIRL	Miss / lonely
MASKS	HAMMER	Mad
MASKS	LOVE	Worry
MASKS	OPEN	Pretend
MASKS	PHONE	Shy
MASKS	QUEENBEE	Angry
MASKS	SPACE	Amazed
MASKS	STOP	Embarrass
MASKS	SUN	Enjoy / happy / enjoyment
MASKS	THMBS DN	Disappoint
MASKS	TV	Bored
MASKS	VOLT	Afraid
MASKS	WANTED	Ashamed
MASKS	WRONG	Frustrate
MASKS	X-RAY	Scary
MEDICAL	APPLE	Drool / health
MEDICAL	CACTUS	Burn
MEDICAL	EAR	Ache
MEDICAL	FLOWERS	Sneeze
MEDICAL	HAMMER	Hurt
MEDICAL	MEDICAL	Ill / medicine
MEDICAL	STOP	Bleed
MEDICAL	SUIT	Breathe
MEDICAL	SUN	Sunburn
MONEY	HOUSE	Own
MONEY	KNOT	Haven't / hasn't
MONEY	MONEY	Buy / actual / money
MONEY	NAME	Check
MONEY	OPEN	Save
MONEY	RETURN	Change
MONEY	SUIT	Shop
MONEY	THMBS DN	Inexpensive

First Icon(s)	Next Icon	Auditory Prompt
MONEY	THMBS UP	Expensive
MONEY	TV	Cost
MONEY	WANTED	Pay
MORNING	MORNING	Light
MOUNTAIN	MOUNTAIN	Things in nature
MUSIC	COMPUTER	Cd album
MUSIC FAMILY	GIRL	My Bonnie
MUSIC FAMILY	GOD	Amazing Grace
MUSIC FAMILY	ISLAND	Michael Row
MUSIC FAMILY	KNOW	My Country Tis of Thee
MUSIC FAMILY	PEOPLE	Waltzing Matilda
MUSIC FAMILY	SUN	Jolly Good Fellow
MUSIC FAMILY	THINK	Alouetta
MUSIC FAMILY	TIME	Auld Lang Syne
MUSIC	LOVE	Kids' Songs
MUSIC LOVE	APPLE	Old MacDonald
MUSIC LOVE	BOY	Jack and Jill
MUSIC LOVE	DICE	Mary Had a Little Lamb
MUSIC LOVE	DOG	Bingo
MUSIC LOVE	FLOWERS	Farmer in the Dell
MUSIC LOVE	HOUSE	Humpty Dumpty
MUSIC LOVE	JUICE	Little Tea Pot
MUSIC LOVE	KITCHEN	Polly Put the Kettle on
MUSIC LOVE	NIGHT	Twinkle Twinkle
MUSIC LOVE	RETURN	Mulberry Bush
MUSIC LOVE	SUIT	Baa Baa Black Sheep
MUSIC LOVE	WATCH	Hickory Dickory
MUSIC LOVE	YORK	London Bridge
MUSIC	MUSIC	Musical instruments
MUSIC	THINK	Christmas songs
MUSIC THINK	BED	Away in Manger
MUSIC THINK	GOD	Oh Holy Night
MUSIC THINK	HOUSE	Jingle Bells
MUSIC THINK	LOVE	O Come Little
MUSIC THINK	NIGHT	Silent Night
MUSIC THINK	SPACE	Angels We Have Heard
MUSIC THINK	SUN	Joy to the World
MUSIC THINK	THINK	We Wish You
MUSIC THINK	TIME	Auld Lang Syne
MUSIC THINK	TV	What Child is This
NAME	COMPUTER	Type
NAME	DICE	Copy
NAME	EYE	Print
NAME	NAME	Names
NAME	STOP	Spell
NAME	TRIANGLE	Titles for people
NIGHT	NIGHT	Shine
NOTEBK	BOOK	Language arts notebook
NOTEBK	KNOW	Assignment book
NOTEBK	LOVE	Children's books
NOTEBK LOVE	PREP	Inside Outside
NOTEBK LOVE	SNAIL	Brown Bear
NOTEBK	NAME	Journal
NOTEBK	NOTEBK	Close notebook

First Icon(s)	Next Icon	Auditory Prompt
NOTEBK	PHONE	Phone directory
NOTEBK	SPACE	Science notebook
NOTEBK	STOP	Spelling notebook
NOTEBK	WRONG	Math notebook
NUMBER	NUMBER	Less / ordinal numbers
OPEN	DOG	Hide
OPEN	EYE	Hunt
OPEN	HOUSE	Shut
OPEN	ISLAND	Find
OPEN	MONEY	Safe
OPEN	NIGHT	Magical
OPEN	OPEN	Keep / wealthy / toys
OPEN	PEOPLE	Share
OPEN	THMBS DN	Close
OPEN	THMBS UP	Open
OPEN	TRUCK	Containers
PEOPLE	BOY	Boy
PEOPLE	FAMILY	Man
PEOPLE	GIRL	Girl
PEOPLE	HOUSE	Neighbor
PEOPLE	KNOW	Student
PEOPLE	LOVE	Baby
PEOPLE	MEDICAL	Therapist
PEOPLE	OPEN	Child
PEOPLE	PEOPLE	Friend
PEOPLE	POLICE	Adult
PEOPLE	THINK	Woman
PEOPLE	TRUCK	Passenger
PEOPLE	YORK	Visitor
PHONE	APPLE	Order
PHONE	BOOK	Discuss
PHONE	COMPUTER	Language technology
PHONE	DOG	Speak
PHONE	ELEPHANT	Counsel
PHONE	FAMILY	Communicate
PHONE	HAMMER	Yell
PHONE	ISLAND	State
PHONE	KNOW	Interview
PHONE	LOVE	Tell
PHONE	MASKS	Apologize
PHONE	PEOPLE	Talk
PHONE	PHONE	Call
PHONE	POLICE	Complain
PHONE	QUEENBEE	Tease
PHONE	RETURN	Answer
PHONE	SUN	Joke
PHONE	THINK	Voice
PHONE	TRUCK	Express
PHONE	WANTED	Describe
PHONE	VOLT	Argue
POLICE	KNOT	Shouldn’t
POLICE	NAME	Consent
POLICE	POLICE	Allow / occupations
QUEENBEE	DOG	Become

First Icon(s)	Next Icon	Auditory Prompt
QUEENBEE	FROG	Belong
QUEENBEE	KNOT	Am not / is, are not
RAINBOW	BOY	Blue
RAINBOW	DOG	Tan
RAINBOW	ELEPHANT	Gray
RAINBOW	FLOWERS	Pink
RAINBOW	FROG	Green
RAINBOW	GIRL	Brunette
RAINBOW	HAMMER	Staple / silver
RAINBOW	HOUSE	Paint
RAINBOW	NAME	Draw
RAINBOW	OPEN	Gold
RAINBOW	PEOPLE	Blond
RAINBOW	POLICE	Black
RAINBOW	RAINBOW	Arch / beautiful / art supplies
RAINBOW	SNAIL	Brown
RAINBOW	SPACE	Orange
RAINBOW	STOP	Red
RAINBOW	SUN	Yellow
RAINBOW	TIME	Cut
RAINBOW	UMBRELLA	Purple
RAINBOW	WANTED	Glue
RAINBOW	X-RAY	White
REMEMBER	APPLE	Set / smooth
REMEMBER	BATH	Rub
REMEMBER	BED	Lay
REMEMBER	BOOK	Pass
REMEMBER	DICE	Roll
REMEMBER	DOG	Catch / soft
REMEMBER	EXIT	Point
REMEMBER	FLOWERS	Hand
REMEMBER	HAMMER	Hard
REMEMBER	JUICE	Hold
REMEMBER	KNOT	Don't / doesn't
REMEMBER	LOVE	Wrap
REMEMBER	MOUNTAIN	Rough
REMEMBER	OPEN	Pick
REMEMBER	PEOPLE	Wave
REMEMBER	PHONE	Touch
REMEMBER	REMEMBER	Remember
REMEMBER	SPACE	Throw
REMEMBER	SUN	Only
RETURN	MUSIC	Repeat
RETURN	RETURN	Return / common
RETURN RETURN	RETURN	Carriage return
SCALES	HOUSE	Govern
SCALES	PHONE	Hang
SCALES	YORK	Political
SCALES	SCALES	Balance
SENTENCE	EYE	About myself
SENTENCE EYE	MASKS	Minsert: I'm feeling
SENTENCE	FLOWERS	Greeting
SENTENCE	KNOT	Negative sentences
SENTENCE	KNOW	Pledge & school things

First Icon(s)	Next Icon	Auditory Prompt
SENTENCE KNOW	POLICE	Pledge
SENTENCE	MEDICAL	Medical sentences
SENTENCE MEDICAL	BOY	Minsert: My body hurts
SENTENCE	PEOPLE	Friend talk
SENTENCE PEOPLE	EXIT	Excuse me
SENTENCE PEOPLE	SUN	So happy
SENTENCE PEOPLE	TV	This boring
SENTENCE	PHONE	About Pathfinder talking
SENTENCE	SUN	Joking around
SENTENCE SUN	MEDICAL	Doctor joke
SENTENCE SUN	OPEN	Robin Hood joke
SENTENCE SUN	ZEBRA	Bulldozer joke
SENTENCE	THINK	Trouble saying it
SENTENCE	TV	Questions
SENTENCE TV	JUICE	Minsert: Want drink
SENTENCE TV	KNOW	Minsert: What class do I have
SENTENCE TV	SHOE	Minsert: Did you watch sports
SENTENCE	WANTED	What I want
SENTENCE WANTED	HOUSE	Minsert: Go to friend's house
SENTENCE WANTED	OPEN	Minsert: Play with
SHOE	BOY	Step
SHOE	EXIT	Cross
SHOE	FROG	Jump
SHOE	GOD	Kneel
SHOE	HOUSE	Climb
SHOE	ISLAND	Fish
SHOE	LOVE	Crawl
SHOE	MOUNTAIN	Camp
SHOE	PEOPLE	Dance
SHOE	POLICE	Stand
SHOE	SCALES	Swing
SHOE	SHOE	Race / sports
SHOE	SNAIL	Creep
SHOE	SPACE	Bowl
SHOE	TRIANGLE	Slide
SHOE	VOLT	Run
SHOE	WATCH	Bounce
SHOE	ZEBRA	Kick
SNAIL	KNOT	Shall not
SPACE	ELEPHANT	Last
SPACE	FAMILY	Middle
SPACE	MORNING	Low
SPACE	PEOPLE	Next
SPACE	SPACE	Space bar
SPACE SPACE	SPACE	Space bar
SPACE	SUN	First
STOP	POLICE	Wait
SUIT	OPEN	Accessories
SUIT	SHOE	Tie
SUIT	SUIT	Wear
SUIT	THMBS DN	Loose
SUIT	THMBS UP	Tight
SUN	KNOT	Not like
SUN	LOVE	Cry

First Icon(s)	Next Icon	Auditory Prompt
SUN	SUN	Laugh / silly
SUN	THMBS DN	Frown
SUN	THMBS UP	Smile
THINK	BED	Dream
THINK	BOOK	Interest
THINK	CHAIR	Support
THINK	COMPUTER	Invent
THINK	ELEPHANT	Forget
THINK	GOD	Believe
THINK	ISLAND	Plan
THINK	KITCHEN	Choose
THINK	KNOT	Not think
THINK	KNOW	Understand
THINK	MOUNTAIN	Seem
THINK	NIGHT	Wonder
THINK	OPEN	Suppose
THINK	PEOPLE	Consider
THINK	QUEENBEE	Mind
THINK	RAINBOW	Imagine
THINK	RETURN	Crazy
THINK	SCALES	Decide
THINK	THINK	Able
THINK	THMBS DN	Disagree / stupid
THINK	THMBS UP	Agree
THINK	WANTED	Mean
THINK	TIME	Wise
THINK	TV	Guess
THMBS DN	NAME	Naughty
THMBS DN	QUEENBEE	Ugly
THMBS UP	THMBS UP	Great
TIME	GOD	Months
TIME	KNOT	Not used to
TIME	MOUNTAIN	Seasons
TIME	SUN	Days and times
TIME	TIME	Bald / present, past, future
TIME	WRONG	Blocks of time
TOOLS	COMPUTER	Computer mode
TOOLS	EAR	Volume
TOOLS EAR	THMBS DN	Quieter
TOOLS EAR	THMBS UP	Louder
TOOLS	EYE	Print
TOOLS	NOTEBOOK	Notebooks
TOOLS NOTEBOOK	BED	Pause
TOOLS NOTEBOOK BED	BOOK	Pause 900
TOOLS NOTEBOOK BED	BOY	Pause 800
TOOLS NOTEBOOK BED	EXIT	Pause 600
TOOLS NOTEBOOK BED	FLOWERS	Pause 500
TOOLS NOTEBOOK BED	HAMMER	Pause 200
TOOLS NOTEBOOK BED	SCALES	Pause 300
TOOLS NOTEBOOK BED	SHOE	Pause 700
TOOLS NOTEBOOK BED	SUIT	Pause 400
TOOLS NOTEBOOK BED	SUN	Pause 100
TOOLS NOTEBOOK	EYE	Print notebook
TOOLS NOTEBOOK	HAMMER	Stress next word

First Icon(s)	Next Icon	Auditory Prompt
TOOLS NOTEBOOK	MUSIC	Accent next word
TOOLS NOTEBOOK	PHONE	Changes voices
TOOLS NOTEBOOK PHONE	BOOK	Paul
TOOLS NOTEBOOK PHONE	BOY	Kit the Kid
TOOLS NOTEBOOK PHONE	EAR	Wendy
TOOLS NOTEBOOK PHONE	ELEPHANT	Harry
TOOLS NOTEBOOK PHONE	MASKS	Rita
TOOLS NOTEBOOK PHONE	LOVE	Betty
TOOLS NOTEBOOK PHONE	MEDICAL	Dennis
TOOLS NOTEBOOK PHONE	THINK	Ursula
TOOLS NOTEBOOK PHONE	TIME	Frank
TOOLS	STOP	Word prediction on/off
TOOLS	SUN	Today's date
TOOLS	TRIANGLE	Calculator
TOOLS	WATCH	Current time
TRIANGLE	HOUSE	Aide
TRIANGLE	KNOW	Flat
TRIANGLE	MORNING	Half
TRIANGLE	SUN	Whole
TRIANGLE	TRIANGLE	Measure / perfect / shapes
TRIANGLE	VOLT	Crooked
TRIANGLE	WATCH	Round
TRIANGLE	WRONG	Straight
TRUCK	APPLE	Plow
TRUCK	EXIT	Roads
TRUCK	HOUSE	Front
TRUCK	ISLAND	Water transportation
TRUCK	KNOT	Couldn't
TRUCK	SNAIL	Back
TRUCK	SPACE	Fly / air transportation
TRUCK	STOP	Stop sign
TRUCK	TRIANGLE	Vehicle parts
TRUCK	TRUCK	Move / vehicles
TV	DICE	Game show
TV	LOVE	Soap opera
TV	SHOE	Sports program
TV	SUN	Cartoon
TV	TV	Happen / question mark
TV TV	TV	Question mark
UMBRELLA	BATH	Showery
UMBRELLA	EYE	Clear
UMBRELLA	HOUSE	Storm
UMBRELLA	ISLAND	Wind
UMBRELLA	JUICE	Ice
UMBRELLA	KNOT	Not need
UMBRELLA	MORNING	Cloud
UMBRELLA	MOUNTAIN	Snow
UMBRELLA	NIGHT	Fog
UMBRELLA	SUN	Sun
UMBRELLA	TRUCK	Freeze / frosty
UMBRELLA	UMBRELLA	Rain
VOLT	FROG	Sudden
VOLT	KNOT	Does not have to
VOLT	VOLT	Speed / quick

First Icon(s)	Next Icon	Auditory Prompt
WANTED	KNOT	Not want
WATCH	APPLE	Meal time
WATCH	KNOT	Wasn't weren't
WATCH	MORNING	Early
WATCH	NIGHT	Late
WATCH	TIME	Begin
WATCH	WATCH	Clock time
WRONG	DICE	Pair
WRONG	ELEPHANT	Couple
WRONG	HE	Divide
WRONG	NIGHT	Many
WRONG	NUMBER	Few
WRONG	PREVERB	Add
WRONG	PREVERB+S	Subtract
WRONG	SCALES	Several
WRONG	SHE	Multiply
WRONG	THMBS DN	Difficult
WRONG	THMBS UP	Correct / easy
WRONG	TRIANGLE	Calculate
WRONG	WRONG	Scratch pad
X-RAY	X-RAY	Hate
YORK	KNOT	Hasn't
YORK	PEOPLE	Visit
YORK	THMBS DN	Short
YORK	THMBS UP	Tall
YORK	TRIANGLE	Building parts
YORK	YORK	Build / indigent / buildings
ZEBRA	APPLE	Farm animals
ZEBRA	DOG	Pets
ZEBRA	HOUSE	Animal homes
ZEBRA	ISLAND	Water animals
ZEBRA	LOVE	Baby animals
ZEBRA	QUEENBEE	Insects
ZEBRA	SPACE	Bird
ZEBRA	TIME	Dinosaur
ZEBRA	TRIANGLE	Animal body parts
ZEBRA	ZEBRA	Zoo

Appendix O: Vocabulary Changes and Special Tools in *Unity* 128 Version for Pathfinder

Vocabulary Changes:

Vocabulary Item	Unity 128	Pathfinder
homework		BOOK BOOK SCHOOL
e-mail		BOOK BOOK COMPUTER
Mom	NAME NAME LOVE	NAME FAMILY LOVE
Dad	NAME NAME FAMILY	NAME FAMILY FAMILY
Chat Box		CHAIR PHONE PHONE
AXS		CHAIR PHONE HAMMER

Sentences with Minserts:

SENTENCE	MEDICAL	BOY	My _____ hurts.
SENTENCE	EYE	MASKS	I'm feeling _____.
SENTENCE	WANT	OPEN	Let's play with my _____.
SENTENCE	WANT	PEOPLE	I want _____ to help me.
SENTENCE	WANT	HOUSE	Let's go to _____'s house.
SENTENCE	TV	KNOW	Do I have _____ today?
SENTENCE	TV	SHOE	Did you watch _____?
SENTENCE	TV	JUICE	May I have a drink of _____, please?

Notebooks:

NOTEBOOK	KNOW		Assignment Book
NOTEBOOK	BOOK		Language Arts Notebook
NOTEBOOK	PHONE		Phone Directory
NOTEBOOK	WRONG		Math Notebook
NOTEBOOK	NAME		Journal
NOTEBOOK	STOP		Spelling Notebook
NOTEBOOK	SPACE		Science Notebook

Books:

NOTEBOOK	LOVE	PREP	Book: Inside, Outside, Upside Down
NOTEBOOK	LOVE	SLOW	Brown Bear, Brown Bear, What Do You See?

Songs:

Songs that were included in the original *Unity* 128 but are not included in Pathfinder *Unity* include Baa Baa Black Sheep, Bingo, O Holy Night, What Child is This, and We Wish You a Merry Christmas.

Songs added to Pathfinder *Unity* include:

Auld Lang Syne	MUSIC FAMILY TIME
Auld Lang Syne	MUSIC THINK TIME
My Bonnie	MUSIC FAMILY GIRL
Waltzing Matilda	MUSIC FAMILY PEOPLE
Alouetta	MUSIC FAMILY THINK
Farmer in the Dell	MUSIC LOVE FLOWERS
Polly Put the Kettle on	MUSIC LOVE KITCHEN

Icon 1	Icon 2	Icon 3	Icon 4		
TOOLS	SUN			speaks the date	<DATE-DISPLAY> <SPEAK-DATE>
TOOLS	WATCH			speaks the time	<SPEAK-TIME>
TOOLS	EAR	THMBS UP		Speaker Volume Up	<SPEAKER-VOLUME-UP> <SPEECH-MARKER><louder
TOOLS	EAR	THMBS DN		Speaker Volume Down	<SPEAKER-VOLUME-DOWN> <SPEECH-MARKER><quieter
TOOLS	PHONE			Voices Demo	These are the available…
TOOLS	TRIANGLE			calculator	<CALCULATOR>
TOOLS	COMPUTER			computer mode	<GO TO COMPUTER>
TOOLS	STOP			Word Prediction ON/OFF	<WORD-PREDICTION-MENU>18
TOOLS	SHE			reset T-TAM	<SPEECH-MARKER>reset tee tam <TEXT/SPEECH MARKER> <SERIAL-MARKER> N N N U U U
TOOLS	EYE			print	*(RETURN)* <CLEAR-DISPLAY>
TOOLS	NOTEBOOK	EYE		print notebook	<NOTEBOOK-MENU>72
NOTEBOOK	NOTEBOOK			close notebook	
TOOLS	NOTEBOOK	HAMMER		stress next word	[“]
TOOLS	NOTEBOOK	MUSIC		accent nest word	[‘]
TOOLS	NOTEBOOK	BED	SUN	100 millisecond pause	[_<100>]
TOOLS	NOTEBOOK	BED	HAMMER	200 millisecond pause	[_<200>]
TOOLS	NOTEBOOK	BED	SCALES	300 millisecond pause	[_<300>]
TOOLS	NOTEBOOK	BED	SUIT	400 millisecond pause	[_<400>]
TOOLS	NOTEBOOK	BED	FLOWERS	500 millisecond pause	[_<500>]
TOOLS	NOTEBOOK	BED	EXIT	600 millisecond pause	[_<600>]
TOOLS	NOTEBOOK	BED	SHOE	700 millisecond pause	[_<700>]
TOOLS	NOTEBOOK	BED	BOY	800 millisecond pause	[_<800>]
TOOLS	NOTEBOOK	BED	BOOK	900 millisecond pause	[_<900>]
TOOLS	NOTEBOOK	PHONE	BOY	Kit the Kid	[:nk]
TOOLS	NOTEBOOK	PHONE	BOOK	Perfect Paul	[:np]
TOOLS	NOTEBOOK	PHONE	THINK	Uppity Ursula	[:nu]
TOOLS	NOTEBOOK	PHONE	MEDICAL	Doctor Dennis	[:nd]
TOOLS	NOTEBOOK	PHONE	EAR	Whispering Wendy	[:nw]
TOOLS	NOTEBOOK	PHONE	TIME	Frail Frank	[:nf]
TOOLS	NOTEBOOK	PHONE	LOVE	Beautiful Betty	[:nb]
TOOLS	NOTEBOOK	PHONE	ELEPHANT	Huge Harry	[:nh]
TOOLS	NOTEBOOK	PHONE	MASKS	Rough Rita	[:nr]

Unity 128 uses the sequence VOLT VOLT VOLT to get the battery status. This is omitted in Pathfinder, as the battery status is present on the screen.

You have completed the introductory guide to *Unity* 128 Version. We hope you found the written information and activities helpful. Facilitators and individuals who use *Unity* 128 Version are invited to share suggestions about improving this vocabulary program by directing your ideas to the attention of the AAC product Manager at the Prentke Romich Company. Sharing suggestions is an essential part of the continued growth and development of the *Unity* series.