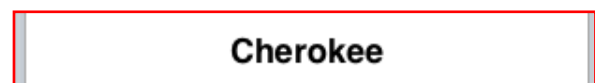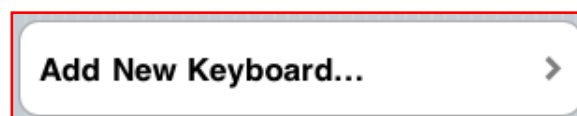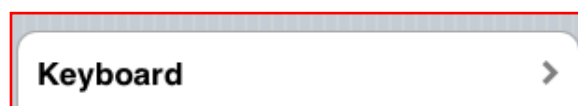# How to Type in ᏣᎳᎩ on the iPhone and iPod Touch

With the introduction of iOS 4.1 from Apple, *all* iPhone models 3G and higher as well as all iPod Touches 2nd generation and higher will have the ability to input the ᏣᎳᎩ syllabary. This means all functions of the device that require text input, including text messaging, emails, and web browsing, now can be done in the Cherokee langauge.

This is a step by step guide to explain how to enable the ᏣᎳᎩ keyboard on the device as well as a description of how use the ᏣᎳᎩ keyboard input method to access all 85 keys on the ᏣᎳᎩ keyboard.

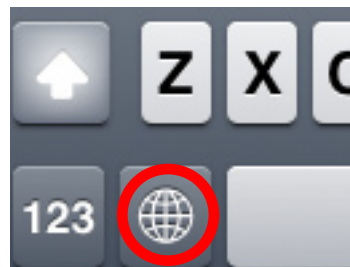## Enable the Keyboard

1. Open Settings on your device.
2. Choose General > Keyboard > International Keyboards.
3. Tap "Add New Keyboard...," then choose "Cherokee" from the list.

After activating ᏣᎳ� on the device, your keyboard should look like the following figure:

Tap on the globe icon on the keyboard to switch between languages.

When the ᏣᎳᏯ keyboard is enabled, it will look like this:

GWY Syllabary System

The Cherokee writing system is a syllabary in which written symbols correspond to syllables. The syllabary has 85 distinct syllables. The syllabary is arranged into a chart where consonants represent rows and vowels represent columns.

a	e	i	o	u	v
D a	R e	T i	Ꭳ o	Ꮎ u	i v
Ꮤ ga Ꮨ ka	Ꮄ ge	Ꭹ gi	A go	J gu	E gv
Ꮡ ha	Ꮅ he	Ꮀ hi	Ꮉ ho	Ꮣ hu	Ꮠ hv
W la	Ꮫ le	Ꮅ li	G lo	M lu	Ꮂ lv
Ꮣ ma	Ꮊ me	H mi	Ꮽ mo	Ꮩ mu	
Ꮎ na Ꮏ hna G nah	Ꮑ ne	Ꮒ ni	Z no	Ꮕ nu	Ꮙ nv
Ꮖ qua	Ꮗ que	Ꮘ qui	Ꮙ quo	Ꮚ quu	Ꮛ quv
Ꮝ s Ꮜ sa	4 se	Ꮢ si	Ꮆ so	Ꮡ su	R sv
Ꮣ da Ꮤ ta	Ꮪ de Ꮫ te	Ꮫ di Ꮫ ti	V do	S du	Ꮭ dv
Ꮮ dla Ꮭ tla	L tle	C tli	Ꮯ tlo	Ꮰ tlu	P tlv
G tsa	Ꮴ tse	Ꮵ tsi	K tso	Ꮶ tsu	Ꮷ tsv
G wa	Ꮺ we	Ꮻ wi	Ꮼ wo	9 wu	6 wv
Ꮿ ya	ß ye	�ón yi	Ꮵ yo	Ꮐ yu	B yv

For example, Ꮤ (ga), Ꮄ (ge), Ꭹ (gi), A (go), J (gu), and E (gv) are all in the same row, and all start with the sound /g/. The GWY keyboard layout is designed around this system of organization.

ᏣᎳᎩ **Keyboard Layout**

Due to the size constraints of the iPhone/iPod keyboard and the large 85-syllable inventory of the Cherokee syllabary, a one-syllable-per-key approach is not feasible.
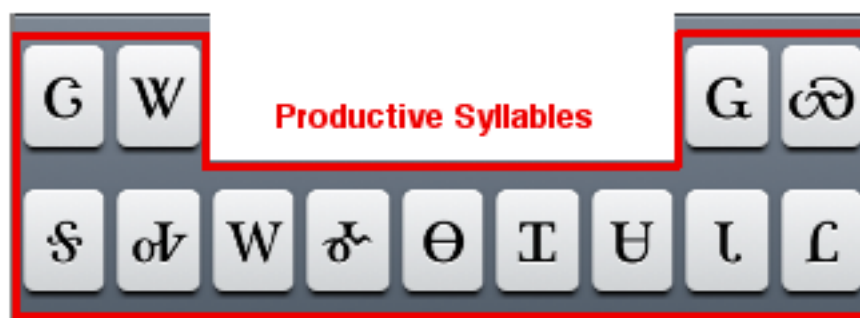
The keys on the layout are organized into three types: non-productive onsets, productive syllables, and vowels.

Non-Productive syllables: These are the keys �轍, Ꮏ, Ꮐ, Ꮝ, and Ꮬ corresponding to syllables ka, hna, nah, s, and dla; these are syllables that have no valid alternative vowel for the onset (e.g. Ꮬ (dla) has no neighboring syllables dle, dli, etc.)

Productive Syllables: These are the keys Ꮳ, Ꮃ, Ꭺ, Ꭹ, Ꮟ, Ꭿ, Ꮃ, Ꮉ, Ꮎ, Ꮖ, Ꮜ, Ꮣ, Ꮭ, which are used to type syllables starting with the sounds ts-, t-, w-, y-, g-, h-, l-, m-, n-, qu-, s-, d-, and tl-. Each of these sounds is productive in Cherokee, i.e., there is more than one syllable for each of these onsets. The symbol used on the key is the syllable for the onset + a, e.g., Ꮟ = ga, Ꭿ = ha, Ꮃ = la, etc.

Vowels: These are the keys Ꭰ Ꭱ Ꭲ Ꭳ Ꭴ and i, corresponding to the vowels a, e, i, o, u and v.

Non-Productive Syllables

| Ꮩ | Ꮏ | Ꮐ | Ꮬ | Ꮝ |

Productive Syllables

| Ꮳ | Ꮃ | | | | | | Ꭺ | Ꭹ |

| Ꮟ | Ꭿ | Ꮃ | Ꮖ | Ꮎ | Ꮝ | Ꮲ | Ꮭ | Ꮭ |

Vowels

| Ꭰ | Ꭱ | Ꭲ | Ꭳ | Ꭴ | i |

The most productive onsets have been placed on the middle row because they are used to form the highest number of syllables. The remaining productive onsets that don't fit on the middle row are positioned on the edges of the top row in order to facilitate two-thumb typing. The non-productive syllables are positioned in the middle of the top row, and the vowels are positioned at the bottom.

Typing with the ᏣᏫᎩ Input - Method 1

Each of the non-vowel keys corresponds to a syllable with the vowel 'a'; typing the key will give you that syllable. Typing the key and then Ꭰ for the vowel 'a' will give the same result.
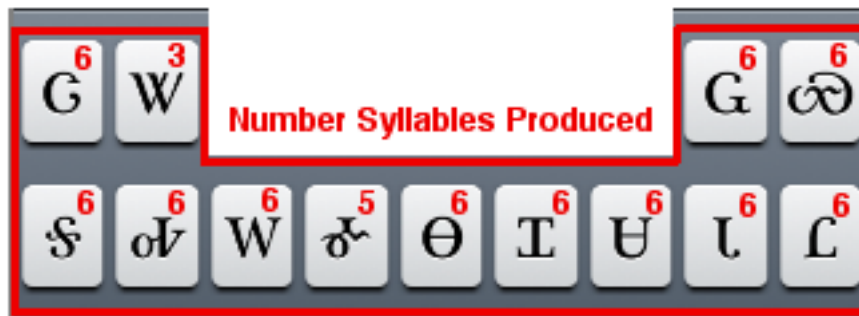
If you want to type a syllable with the vowels e, i, o, u or v, first type the appropriate consonant and then the corresponding vowel. For example, to input ᏣᎳᎩ (tsalagi), we type Ꮳ Ꮃ Ꮪ Ꭲ, or tsa la ga i; the Ꮪ and Ꭲ combine into Ꭹ after Ꭲ is typed.

To type ᎠᏉᎵ (goweli, book), we type Ꮪ Ꭰ Ꮐ Ꮢ Ꮃ Ꭲ, or ga o wa e la i.

The reason for this arrangement is that it is faster than having multiple keyboards with shift and option-shift keyboard modifiers. This layout can type any syllable in one or two strokes, whereas the multi-layer design would type any syllable in one or three strokes. This layout is also easier to memorize than a multi-layer design, as there is only one layer to learn.

Typing with Pop-Ups - Method 2

The syllables that start with the consonant on the key can also be accessed via a popup from that key by pressing and holding the key for a second. Of the 13 productive syllable keys, eleven produce all 6 syllables, one (ᎠᏒ) produces 5 syllables and one (Ᏸ) produces only 3 syllables.

The following 13 screenshots below show all of the pop-ups in action.

B Gᷱ Ꮁ Ꮸ β ꝏ

Ᏻ W Ꮒ Ꮪ Ꮆ Ꮏ Ꮐ Ꮹ

Ꮪ oꝟ W Ꮯ Θ Ꮖ Ꮃ Ꮬ Ꮮ

D R T Ꮪ Ꮻ i

123 🌐 Ꭶ�W0·ᏞᎠᏫᎩ iᏚᎷᎩ

Ꮪ Ᏼ Ᏹ A J E Ꮪ Ꮆ ꝏ

oꝟ W Ꮪ Θ Ꮖ Ꮃ Ꮬ Ꮮ

D R T Ꮪ Ꮻ i

123 🌐 Ꭶ�W0·ᏞᎠᏫᎩ iᏚᎷᎩ

Ꮆ oꝟ Ᏸ Ꭿ Ᏼ Ꮁ Ꮪ Ᏹ ꝏ

Ꮪ W Ꮪ Θ Ꮖ Ꮃ Ꮬ Ꮮ

D R T Ꮪ Ꮻ i

123 🌐 Ꭶ�W0·ᏞᎠᏫᎩ iᏚᎷᎩ

123 iSMY

123 iSMY