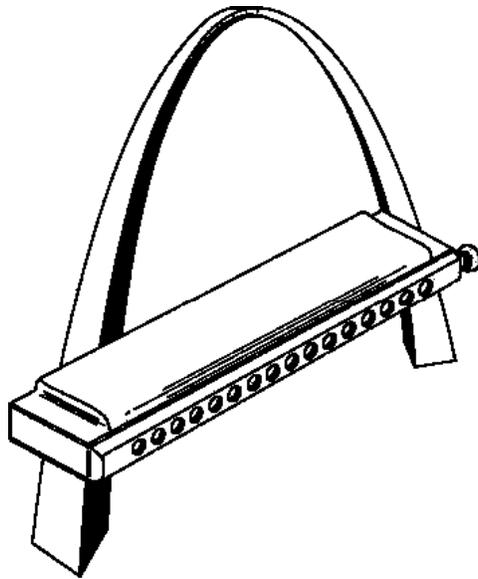


Student Guide for SOLO-TUNED HARMONICA (Part I — Diatonic)

Presented by



The Gateway Harmonica Club, Inc.

St. Louis, Missouri

To participate in the course **Solo-Tuned Harmonica (Part I — Diatonic)**, the student must have:

- a 12-hole solo-tuned diatonic harmonica in the key of C, or
- a 12- or 16-hole chromatic harmonica in the key of C.

All of the material covered in this course pertains to the solo-tuned diatonic harmonica. Those students using 12- or 16-hole solo-tuned chromatic harmonicas will be able to play the same material and use the same techniques; however, the additional capabilities of the chromatic harmonica will not be covered.

This course is designed to teach beginner level players the basics of playing the 12-hole solo-tuned diatonic harmonica, which is tuned differently from the standard 10-hole diatonic instrument. Although solo-tuned instruments are not well suited for blues playing, they are ideal for playing melodies and are simpler to learn.

Students in this course will learn:

- basic playing technique
- where the notes of the major diatonic scale are located on the solo-tuned harmonica, and
- how to use this knowledge in playing a number of familiar melodies.

Basics of scales, pitch and rhythm will be covered.

Those who complete this course may wish to take **Solo-Tuned Harmonica (Part II — Chromatic)**, for which the student must have a 12- or 16-hole solo-tuned chromatic harmonica in the key of C..

INTRODUCTION TO THE HARMONICA

Welcome to the world of harmonica playing. The harmonica is a very special musical instrument. It's small, inexpensive and easy to learn to play. It can be used to play anything from nursery rhymes to classical music. It has a very special sound. You can use it to play simple songs or complex songs, old songs or modern songs.

You don't need years of music lessons to begin to enjoy your harmonica. With a couple of lessons and a few minutes of practice each day, you should be playing simple tunes in no time. And if you continue to learn and practice new songs, you can become an expert player.

In this course you will learn some important basic facts and skills, including:

- How to play a single note
- How to play each note of the 'C' major scale
- How to relate the notes on your harmonica to standard written music
- How to play songs from standard written music

WHEN YOU HAVE FINISHED THE COURSE . . .

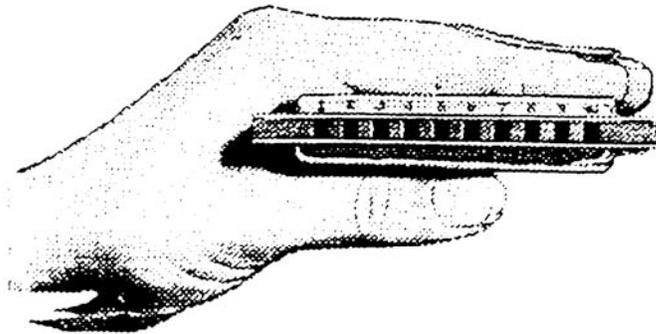
. . . you will have the ability to learn and play many additional songs that you can find in books available at music stores, schools, churches and libraries. Some of these books are written specially for harmonica players. Others are written for voice or for such other instruments as piano, flute or violin.

Songs that you find in some books may contain certain "**in-between**" notes (called **sharps and flats**) that are not built into the kind of harmonica that you have. Other harmonicas (called "**chromatic harmonicas**") are designed to play those "in-between" notes. If you reach a point in your harmonica playing where you want to be able to play a wider variety of songs, you may decide to purchase a chromatic harmonica.

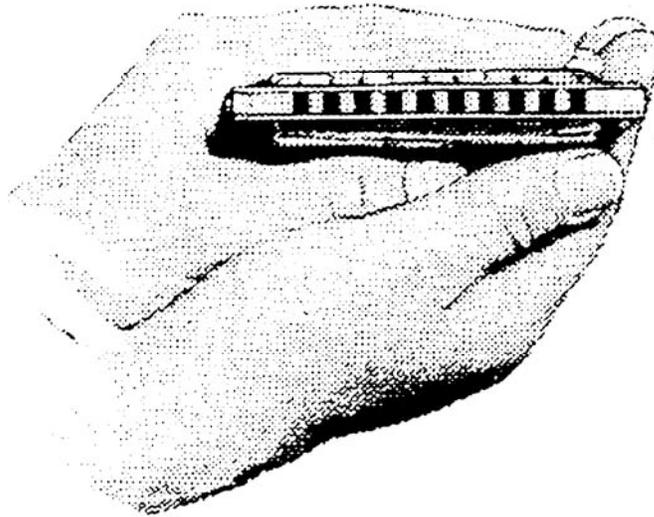
HOW TO HOLD YOUR HARMONICA WHEN PLAYING

The way you hold your harmonica is in some ways a matter of choice and a result of habit. **Any** hand position that is comfortable to you and produces the sound you like is right for you. However, as a beginning player, you should at least try the hand position illustrated below. It has proved effective for many players.

NOTE: The cover plate with the **hole numbers** should be **on top**.



STEP #1



STEP #2

This position allows the right hand to “cup” around the bottom and back of the instrument, producing a sweeter, muted tonal quality when the “cup” is closed and a brighter tone when the “cup” is opened.

HOW YOUR HARMONICA MAKES SOUNDS

Before you learn to play your harmonica, it is helpful to understand a few basic facts about how a harmonica makes sound. Knowing these facts will help you to play correctly and to take good care of your instrument.

A harmonica plays musical sounds (**tones**) when you **blow** (exhale) or **draw** (inhale) air through the holes at the front of the instrument.

EXERCISE: Blow through some of the holes on your harmonica. Then draw through the same holes.

QUESTION: Are the tones played when you blow different from the tones played when you draw? _____

EXERCISE: Take a big breath. Then blow into the holes on the **left** end of the harmonica (holes 1,2,3, etc.) While you are still blowing, slide the harmonica to the left so that your mouth slides to the **right** end of the harmonica. Repeat, but this time slide your mouth from **right** to **left**.

QUESTION: (fill in the blanks) The low tones are on the _____ end and the high tones are on the _____ end.

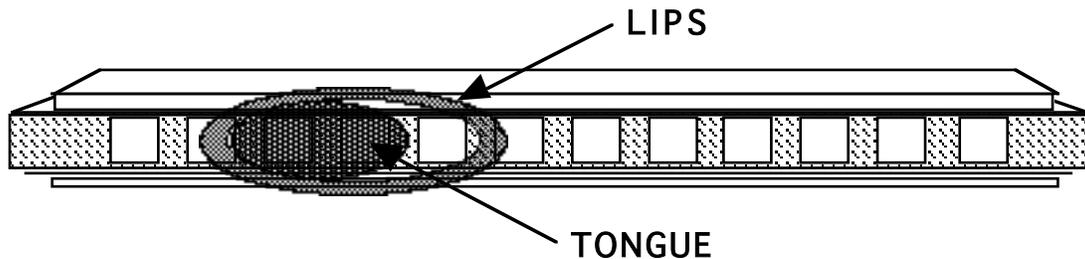
NOTE: For information on how harmonicas are made, see page 36.

PLAYING ONE NOTE AT A TIME

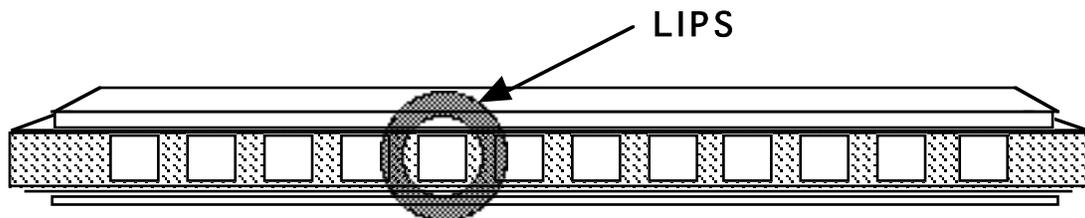
When you blow or draw air through two or more holes at the same time, you play two or more notes together. Sometimes this makes the musical sound you want, but some notes when played together make an unpleasant or musically incorrect sound. To avoid this, you need to learn a technique for playing **one note at a time**.

There are two basic techniques for playing one note at a time. One is called the “**tongue blocking**” method, and the other is called the “**pucker**” method. Which one should you use? The one that works better for **you**. The size and shape of your mouth and the flexibility of your lip muscles will determine which method you find more effective in getting the sound you want.

To use the **tongue-blocking** method, place your lips over three or four holes and hold your tongue against the holes on the left side, leaving room to blow or draw air next to the right side of your tongue.



To use the **pucker** method, form a small opening with your lips as you would for whistling or sipping through a straw. Then press your lips to the harmonica.



EXERCISE: Try both of these methods and see which one works best for you in playing one note at a time. If you can't seem to get the result you want with either method, don't be discouraged. Some players find that it takes a while to develop a good single note technique. Just keep working at it and do the best you can. With practice, you will develop your own technique for playing single notes.

WHAT IS “SOLO-TUNING” ALL ABOUT?

This course is based on the use of the 12-hole **solo-tuned diatonic** model harmonica tuned in the key of ‘C’. The term **solo-tuned** refers to an arrangement of the notes that is more convenient for using a **single-note technique** to play melodies. (The more common tuning used on most 10-hole harmonicas is called Richter tuning. It was designed about a century ago for a multi-note approach to playing the folk tunes of that period. It is still used today by many blues, folk and country music players.)

SCALES

A **scale** is an ascending sequence of musical **tones or pitches**.. A **diatonic** scale is a sequence of **eight tones** spanning an **octave** (as explained in the next section). There are many different diatonic scales, but probably the most familiar one in Western culture is the **major scale**, the one many of us learned as children in school. We learned to sing it using **syllable names** for the pitches:

do re mi fa so la ti do.

The first tone and last tone in this sequence are given the same name, **do**, because they sound nearly identical even though the second one is higher in pitch.

EXERCISE: Blow in hole 1. Blow in hole 5. Blow in hole 9. Blow in hole 12. Can you tell that all of these tones sound very similar, although not identical?
--

Actually, the second **do**, in addition to being the **last** tone of the scale shown above, is the **first** tone of another major scale that repeats the same sequence of eight tones:

do re mi fa so la ti do re mi fa so la ti do

OCTAVE

As seen above, the major scale consists of **eight pitches or tones**.

The musical name for the difference in pitch between any two tones is “**interval**”. The musical name for the interval between the two **dos** in the above scale — or between any two tones that are eight tones apart — is “**octave**”.

LETTER NAMES OR NOTE NAMES

In addition to the syllable names (do, re, mi, etc.) shown above, all musical tones also have **letter** names. These letter or **note** names are the names we will learn to use in this harmonica course. **On your harmonica, which is tuned in the key of 'C',** the letter names that correspond to **do, re, mi, etc.** are as follows:

Scale names	do	re	mi	fa	so	la	ti	do
Letter or note names	C	D	E	F	G	A	B	C

NOTE LOCATIONS

For the 12-hole solo-tuned harmonica in the key of C, the chart below shows:

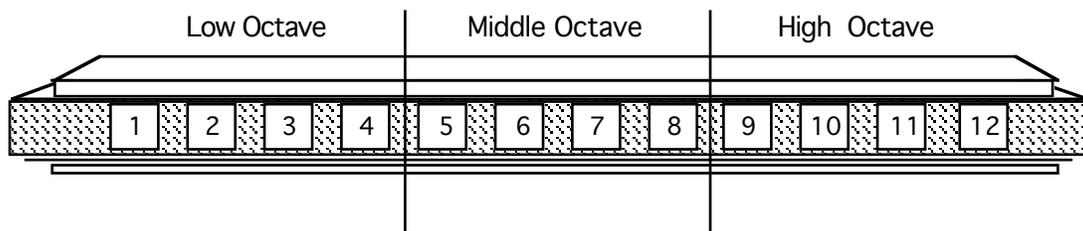
- which **holes** contain which **notes**
- whether the note is played by **blowing** or **drawing**

	1	2	3	4	5	6	7	8	9	10	11	12
Blow	C do	E mi	G so	C do	C do	E mi	G so	C do	C do	E mi	G so	C do
Draw	D re	F fa	A la	B ti	D re	F fa	A la	B ti	D re	F fa	A la	B ti

Notice that each hole contains **two** notes: one **blow note** and one **draw note**.

The notes on the 12-hole diatonic harmonica are grouped in three octaves:

- In holes 1 through 4 (the **low** octave)
- In holes 5 through 8 (the **middle** octave)
- In holes 9 through 12 (the **high** octave)



FOCUSING ON THE MIDDLE OCTAVE

In our lessons, we will play music that uses mostly the notes in the **middle octave**. Most of the songs we learn will be played on the notes in **holes 5, 6, 7 and 8**.

	5	6	7	8
Blow	C	E	G	C
Draw	D	F	A	B

PLAYING THE 'C' SCALE

Now let's play the eight notes in our middle octave.

EXERCISE: Starting on hole 5, play the following sequence:

BLOW 5, then DRAW 5

(move to hole 6)

BLOW 6, then DRAW 6

(move to hole 7)

BLOW 7, then DRAW 7

(move to hole 8)

DRAW 8, then BLOW 8

This sequence of blowing, drawing and moving produces the C major scale as follows:

C D E F G A B C

Next practice playing **down** the scale by **reversing** the above sequence:

EXERCISE: Starting in hole 8, play the following sequence:

BLOW 8 then DRAW 8

(move to hole 7)

DRAW 7 then BLOW 7

(move to hole 6)

DRAW 6 then BLOW 6

(move to hole 5)

DRAW 5 then BLOW 5

Practice repeating both of these patterns of blowing, drawing and moving up and down the scale until you can do it smoothly and comfortably. Continue to practice it until you play it without looking at the page. Continue it further until you can play without thinking about the hole numbers.

WHY IN THUNDER DID THEY DO IT THAT WAY???

Most students are at first puzzled as to the reason that the progression up the scale is produced by the sequence . . .

Blow then draw in holes 5, 6 and 7

. . . **but** . . .

Draw then blow in hole 8.

Why not make the sequence blow then draw in **all** the holes? The main reason for this tuning arrangement is to give the player **three important advantages** as he or she moves from one octave to another.

You will see the importance of these advantages in the next section.

WHY IS MY HARMONICA TUNED THIS WAY?

Advantage #1: The **first** advantage of the tuning arrangement of the 12-hole solo-tuned harmonica is that the player can use the **same blowing and drawing pattern in all three octaves** (low octave, middle octave and high octave) to play the major scale. In other words,

blow, draw, move,
blow, draw, move
blow, draw, move
draw, blow

produces the same result in any octave.

(This is **not** true of the 10-hole harmonica.)

Advantage #2: The **second** advantage is that **the pairing of blow and draw notes is the same in all octaves**. In other words, in every octave . . .

C and D are always together in the same hole
E and F are always together in the same hole
G and A are always together in the same hole
B and C are always together in the same hole

(This is **not** true of the 10-hole harmonica.)

Advantage #3: The **third** advantage is that in **every** octave . . .

C, E, G and C are always **blow** notes
D, F, A and B are always **draw** notes

(This is **not** true of the 10-hole harmonica.)

SOME IMPORTANT THINGS TO REMEMBER

These three advantages are so important that every beginning player should memorize them. Review them now and then try to write them from memory on the next page.

“TEST YOUR MEMORY, MY DEARIE . . . “

Fill in the blank spaces below to reinforce your memory of these characteristics of the 12-hole solo-tuned harmonica (if necessary, look again at page 9):

Advantage #1: The player can use the same blowing, drawing and moving pattern in all three octaves (low octave, middle octave and high octave) to play the major scale. In other words,

_____, _____, _____
_____, _____, _____
_____, _____, _____
_____, _____

produces the same result in any octave.

Advantage #2: The pairing of blow and draw notes is the same in all octaves. In other words, in every octave . . .

___ and ___ are always together in the same hole
___ and ___ are always together in the same hole
___ and ___ are always together in the same hole
___ and ___ are always together in the same hole

Advantage #3: In every octave . . .

___, ___, ___ and ___ are always blow notes
___, ___, ___ and ___ are always draw notes

Review these characteristics of your 12-hole harmonica regularly until you are comfortable repeating them from memory.

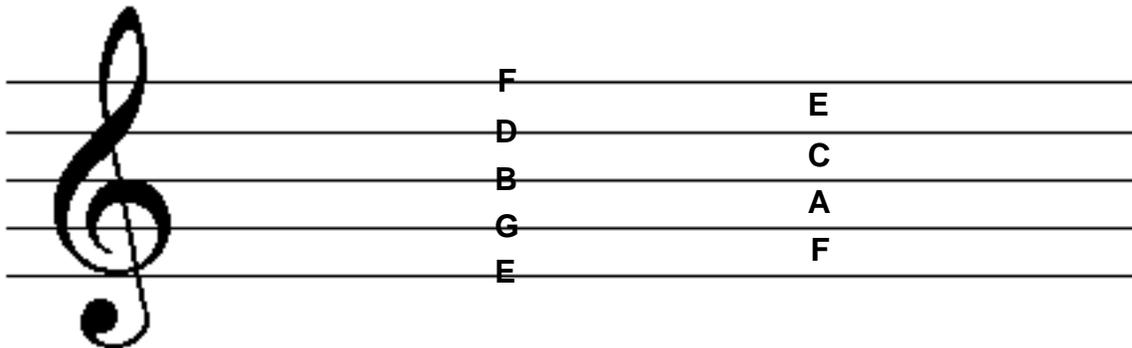
PLAYING THE SCALE FROM “SHEET MUSIC”

So far we have talked about the notes of the C major scale in terms of where they are located on the harmonica and whether they are blow notes or draw notes. One objective of this course is to enable you to use the notes of the scale to play a wide variety of tunes that you find in published music — music available from music stores, libraries, church hymnals and other sources — whether or not the music has been written specifically for harmonica players.

Music available for the vast majority of tunes you would want to play is published in the form of “**sheet music**” or “**staff notation**,” a system of musical symbols that has been in use for many centuries by singers and players of all kinds of instruments.

The staff notation system uses note symbols and a group of **five parallel lines** called a staff. The positions of note symbols on the lines or in the spaces between the lines indicate the pitches of the notes. This system helps the musician to determine the pitch — the highness or lowness — of each note

Each note symbol is either **on one of the lines** or **in one of the spaces between the lines**. Each line and each space has a **letter name** that identifies notes positioned on that line or space as shown below.



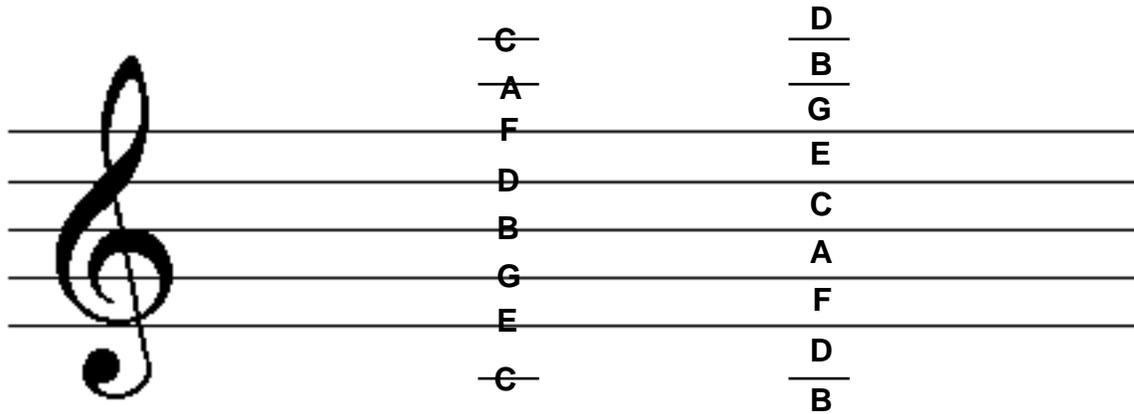
Because various musical instruments (such as a violin, a viola and a bass violin) have widely different pitch ranges, different staves (or staves) are used in writing music for these instruments. Most music played by harmonica players is written on what is called the treble clef or G clef. It is called the G clef because the musical symbol at the left side looks something like a fancy letter G.

Music students are often taught simple memory aids to help them remember the letter names of the lines and spaces. For the lines, they use the sentence “**Every Good Boy Does Fine**”; for the spaces, they use the word “**FACE**”.

Notice that the large loop of the G clef symbol encircles the line on which the note G is located.

LEDGER LINES

The lines and spaces of the staff identify nine notes. However, many pieces of music include notes above and below the ones located on the staff. . To provide positions for notes that are higher or lower than the ones on the staff, short horizontal lines (called ledger lines) are added above and below the lines of the staff itself as shown below:



Additional ledger lines above and below those shown in this chart are sometimes needed for even higher or lower notes. In such cases the alphabetic sequence is extended up or down following the same cycle, either ...

A B C D E F G A B C, ... etc. going up above the staff

... or ...

G F E D C B A G F E, ... etc. going down below the staff.

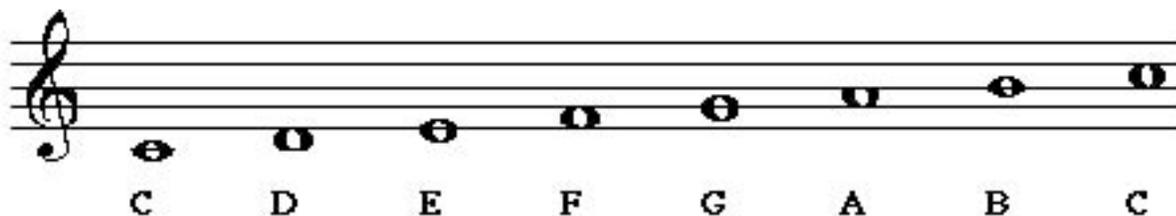
Rather than trying to memorize longer sentences or memory keys, it is easier to simply remember which letter comes before or after the ones on the basic staff and “say the alphabet” backward or forward as you move down or up the lines and spaces.

QUESTION: Why does each letter name change from a line to a space (or from a space to a line) when a new octave begins?

ANSWER: The eighth note name in an octave is a repeat of the first note name and is the beginning of the next octave. Count from 1 to 8 from any beginning point (line or space) on the staff or its associated ledger lines. If you begin on a line, you will end on a space; if you begin on a space, you will end on a line. It’s just plain old mathematics.

PLAYING THE C MAJOR SCALE

The staff notation below shows the notes of the C major scale as you will play them in the middle octave of your 12-hole solo-tuned harmonica..



Let's see how what you have learned already corresponds to the symbols of staff notation. Using what you have learned up to this point, what do you know about how to play the above notes on the **middle octave** of your 12-hole solo-tuned harmonica?

EXERCISE:

Using a pencil, draw vertical lines between the notes on the staff to show how the eight notes on the staff are grouped into four pairs on your harmonica (if necessary, look back at page 7).

Beneath each letter name, write the hole number in which the note is located in the middle octave on your harmonica.

Write parentheses () around the letter names of the draw notes.

Play the scale as you see it represented in the staff notation above.

Play the scales several times again, playing faster as you continue to watch the notes shown in the staff notation.

MORE EXERCISES

Using what you learned in the previous exercise, write the letter name under each note on the staves (plural of staff) shown below.

Under the name, write the hole number.

For draw notes, put the hole number in parentheses ().



When you have finished marking the above notes, try playing them on your harmonica.

NOW LET'S PLAY A SIMPLE TUNE

So far we have learned . . .

- where the notes of the C major scale are found on the middle octave of your harmonica,
- whether they are played by blowing or drawing, and
- how these notes are represented on sheet music or staff notation.

We haven't yet talked about **rhythm** — that is, how the staff notation tells us how long to hold each note, etc. — That subject will be covered later. However we should be able to apply what we have learned to a very familiar tune, one for which we already know the rhythm. Let's give it a try. Attempt to play single notes if you can.

Mary Had A Little Lamb

Sheet music for "Mary Had A Little Lamb" on a harmonica. The music is in 4/4 time and consists of four staves. Each staff shows notes on a treble clef staff with corresponding letter names and fingerings below. The notes are:

Staff 1: E₆ D(S) C₅ D(S) E₆ E₆ E₆

Staff 2: D(S) D(S) D(S) E₆ G₇ G₇

Staff 3: E₆ D(S) C₅ D(S) E₆ E₆ E₆ E₆

Staff 4: D(S) D(S) E₆ D(S) C₅

PLAYING NOTES IN THE LOW AND HIGH OCTAVES

So far, you have been playing songs that included notes only in the middle octave. Now we will begin to work on songs that have most of their notes in the middle octave, but also a few notes in the low or high octave.

You have already learned to recognize the 'faces' of the notes in the middle octave. You know their letter names, their hole numbers and whether they are blow or draw notes. What you already know about the middle octave will be a big help in learning the low and high octaves.

The following page shows the notes in all three octaves. Their letter names are already written below the notes. But what about the hole numbers? And how do you know which are blow notes and which are draw notes?

To answer these questions, picture your harmonica as three separate harmonicas, each one having only four holes. If we stacked our three harmonicas on top of each other, the hole arrangement would look something like this:

	1st Hole	2nd Hole	3rd Hole	4th Hole
Low Octave	1	2	3	4
Middle Octave	5	6	7	8
High Octave	9	10	11	12
Blow Note	C	E	G	C
Draw Note	D	F	A	B

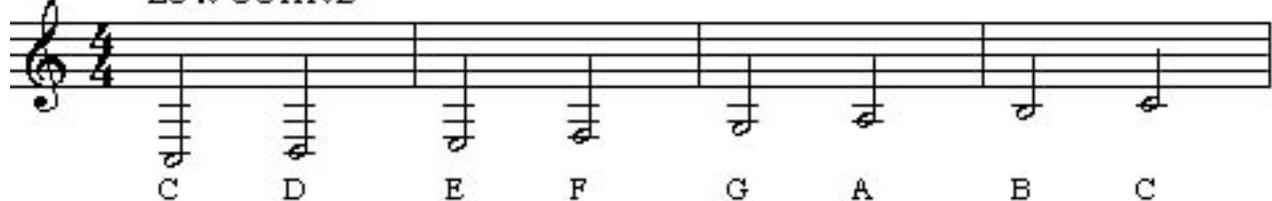
What this chart shows you is that each octave is arranged the same as the others. The only thing different is the hole numbers. And if you already know the hole numbers for all the notes in the middle octave, just . . .

- SUBTRACT 4 from the middle octave hole number to get the low octave hole number for the same note.
- ADD 4 to the middle octave hole number to get the high octave hole number for the same note.

EXERCISE: Write hole numbers under each note. Use parentheses () to indicate draw notes.

QUESTION: How do you know which notes are blow notes and which are draw notes in the low octave and the high octave? (HINT: remember, we learned that all notes that have the same letter name are either always blow notes or always draw notes.)

LOW OCTAVE



C D E F G A B C

The image shows a musical staff in 4/4 time with a treble clef. The notes are C, D, E, F, G, A, B, and C, each represented by a half note. The notes C, D, E, and F are positioned below the staff, while G, A, B, and C are positioned above the staff.

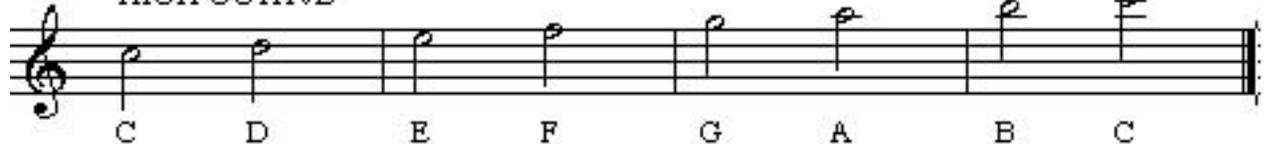
MIDDLE OCTAVE



C D E F G A B C

The image shows a musical staff in 4/4 time with a treble clef. The notes are C, D, E, F, G, A, B, and C, each represented by a half note. All notes are positioned above the staff.

HIGH OCTAVE



C D E F G A B C

The image shows a musical staff in 4/4 time with a treble clef. The notes are C, D, E, F, G, A, B, and C, each represented by a half note. All notes are positioned above the staff.

Now play the scale in each octave.

PLAYING THE SAME SONG IN A LOWER OR HIGHER OCTAVE

If all of the notes in a song are within the middle octave, you can also play the song in the low octave or the high octave just by moving your starting position for the first note either down 4 holes or up 4 holes and “pretending to be playing in the middle octave.

Try this now by returning to page 15 and playing “Mary Had A Little Lamb”. Try it first in the low octave by starting on hole 2. Then try it again by starting in hole 10. Hey, look at you! You’re playing the same song in three different ranges. That can add some nice variety to your playing.

IDENTICAL Cs IN DIFFERENT OCTAVES

On page 17, look at the last note of the low octave. Now look at the first note of the middle octave. They are both named ‘C’ and their ‘faces’ are the same. That’s because they are identical notes. Blow into hole 4. Now blow into hole 5. Your ear will tell you that these notes are the same.

The same thing happens with the last note in the middle octave and the first note in the high octave. They are both named ‘C’ and their ‘faces’ are the same because they are identical notes. Blow into hole 8. Now blow into hole 9. Once again, your ear will tell you that these notes are the same.

So which hole do you blow when you see one of these Cs? The answer is:
WHICHEVER ONE YOU CHOOSE. Since they are musically identical, you as the player can choose the one to play. Usually, it will be the one closest to the next note following.

PLAYING SONGS THAT HAVE NOTES IN MORE THAN ONE OCTAVE

Using what you have learned about the low and high octaves, you are now ready to play some songs that require you to jump up or down to those octaves to get the notes you need. The songs on the following pages will let you practice doing just that.

As you get ready to play each song, look at it to spot the notes in the low or high octave. Do you remember their letter names?, If not, look back at page 17. Do you remember their hole numbers and whether they are blow or draw notes? If you don’t remember right away, look back at page 16.

Then go ahead and have fun learning these songs.

OK, LET'S GET GOING ON OUR NEXT SONG:

- In 'Skip To My Lou' below, what are the names of the notes in the first line? _____
- What do these notes have in common on the harmonica? (They are all _____ notes.)
- There is a note on the second line that is **not** in the middle octave. What is its name? _____ In what hole is it located? _____
- What are the names of the notes in the second line? _____
- What do these notes have in common on the harmonica? (They are all _____ notes.)
- What do you notice about the notes in the third and fourth lines?
- Play this song based on what you have learned so far.

Skip To My Lou

The musical score for 'Skip To My Lou' is written in 4/4 time and consists of four staves of music. The first staff begins with a treble clef and a 4/4 time signature. The notes are: G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter), D5 (quarter), E5 (quarter), F5 (quarter), G5 (quarter). The second staff continues with: G5 (quarter), A5 (quarter), B5 (quarter), C6 (quarter), D6 (quarter), E6 (quarter), F6 (quarter), G6 (quarter). The third staff continues with: G6 (quarter), A6 (quarter), B6 (quarter), C7 (quarter), D7 (quarter), E7 (quarter), F7 (quarter), G7 (quarter). The fourth staff concludes with: G7 (quarter), A7 (quarter), B7 (quarter), C8 (quarter), D8 (quarter), E8 (quarter), F8 (quarter), G8 (quarter). The piece ends with a double bar line.

FACE THE MUSIC

Some things you will **not** find in the remaining pages are **names, hole numbers and parentheses** to tell you the names of the notes and where to find them. You have already learned these things. You may not remember them perfectly and you may have to refer back to the earlier pages to refresh your memory, but to become a confident and self-reliant player, you need to begin recognizing the notes by their ‘faces’ and remembering which holes they are in and whether they are blow notes or draw notes.

MORE SONGS TO LEARN AND PLAY

On the following pages are three more songs that you can play using what you have learned so far. As you look at each new song, look at each note and think . .

- What is its letter name?
- Is it a blow note or a draw note?
- In what hole is it located?

The more you work on new songs like this, the more quickly you will be able to answer these questions. Soon you will not even have to think of the questions because the answers will come to your mind automatically.

As previously mentioned when we worked on “Skip To My Lou,” we have not yet talked about the subject of **rhythm notation**. We will come to that topic soon, but in playing these next three songs you can rely on your familiarity with these well-known tunes.

This Old Man

The musical score for "This Old Man" is written in 4/4 time and consists of four staves of music. The first staff begins with a treble clef and a 4/4 time signature. The melody starts on a quarter note G4, followed by quarter notes A4 and B4, then a half note C5. The second measure contains a quarter note D5 with a fingering '2' above it, followed by quarter notes E5 and F5, and a half note G5. The third staff starts with a quarter note G4 (fingering '3'), followed by quarter notes A4, B4, and C5. The fourth measure contains quarter notes D5, E5, and F5, and a half note G5. The fourth staff starts with a quarter note G4 (fingering '5'), followed by quarter notes A4, B4, and C5. The fifth measure contains quarter notes D5, E5, and F5, and a half note G5. The sixth staff starts with a quarter note G4 (fingering '7'), followed by quarter notes A4, B4, and C5. The seventh measure contains quarter notes D5, E5, and F5, and a half note G5. The piece concludes with a double bar line.

Michael, Row The Boat Ashore

The musical score is written in 4/4 time on a single treble clef staff. It consists of 16 measures, numbered 1 through 16. The melody begins with a quarter rest in measure 1, followed by a quarter note G4 in measure 2, a quarter note A4 in measure 3, a quarter note B4 in measure 4, a quarter note C5 in measure 5, a quarter note B4 in measure 6, a quarter note A4 in measure 7, a quarter note G4 in measure 8, a quarter note F4 in measure 9, a quarter note E4 in measure 10, a quarter note D4 in measure 11, a quarter note C4 in measure 12, a quarter note B3 in measure 13, a quarter note A3 in measure 14, a quarter note G3 in measure 15, and a quarter note F3 in measure 16. The piece concludes with a double bar line at the end of measure 16.

Oh Susanna

The musical score for "Oh Susanna" is written in 4/4 time and consists of 16 measures. The melody is presented on a single treble clef staff. The notes are as follows:

- Measure 1: G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter)
- Measure 2: D5 (quarter), C5 (quarter), B4 (quarter), A4 (quarter)
- Measure 3: G4 (quarter), F4 (quarter), E4 (quarter), D4 (quarter)
- Measure 4: C4 (quarter), B3 (quarter), A3 (quarter), G3 (quarter)
- Measure 5: F3 (quarter), E3 (quarter), D3 (quarter), C3 (quarter)
- Measure 6: B2 (quarter), A2 (quarter), G2 (quarter), F2 (quarter)
- Measure 7: E2 (quarter), D2 (quarter), C2 (quarter), B1 (quarter)
- Measure 8: A1 (quarter), G1 (quarter), F1 (quarter), E1 (quarter)
- Measure 9: D1 (quarter), C1 (quarter), B0 (quarter), A0 (quarter)
- Measure 10: G0 (quarter), F0 (quarter), E0 (quarter), D0 (quarter)
- Measure 11: C0 (quarter), B0 (quarter), A0 (quarter), G0 (quarter)
- Measure 12: F0 (quarter), E0 (quarter), D0 (quarter), C0 (quarter)
- Measure 13: B0 (quarter), A0 (quarter), G0 (quarter), F0 (quarter)
- Measure 14: E0 (quarter), D0 (quarter), C0 (quarter), B0 (quarter)
- Measure 15: A0 (quarter), G0 (quarter), F0 (quarter), E0 (quarter)
- Measure 16: D0 (quarter), C0 (quarter), B0 (quarter), A0 (quarter)

“AND THE BEAT GOES ON . . .”

THE BEAT AND THE MEASURE

If you were inventing your own system of writing music, how would you indicate when each note should be played and how long it should last?

Staff notation defines a rhythm by relating it to an imaginary **steady pulse or beat**. For example, some notes may last two beats, some one beat, some only one half beat or less. The beats themselves are counted evenly, like the ticking of a clock, and they are counted in groups called measures. The measures are usually of two, three, or four beats, and they might sound like this if you were to count them out loud:

2-beat measures: “**One** two **One** two **One** two **One** two”

3-beat measures: “**One** two three **One** two three **One** two three”

4-beat measures: “**One** two three four **One** two three four”

The larger letters represent **metric accents**. A note played on an accented beat is generally slightly louder than others, or is emphasized in some other way. Usually the first beat of any measure will have the strongest accent, which is called the primary accent. Later, we’ll see that some measures also have a weaker secondary accent. For example, 4-beat measures can have a secondary accent on the third beat, like this:

“**One** two **three** four **One** two **three** four”

THE SYMBOLS OF RHYTHM NOTATION

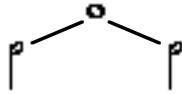
Measures are separated in staff notation by vertical measure lines (sometimes called bars or bar lines) as shown below.



Several whole notes separated by measure lines or bar lines

All the symbols for musical notes are derived from the basic one we have already been using, which is called the whole note.

A note half as long as a whole note is called, of course, a half note, and it is made by adding a stem to the whole note:



One whole note is worth two half notes

Then we fill in the half note to make a quarter note, equal in time to one fourth of a whole note. Next we add a flag to make an eighth note, and then add more flags as needed; two flags for a sixteenth note, for example.



In theory we could keep adding flags forever and make shorter and shorter notes, but you will rarely see a note shorter than a sixteenth note in popular music.

BEAMS

Beams are sometimes used as a substitute for flags. They are often used to show which notes are played on a given beat in the rhythm of the piece. The illustrations below show alternate ways of beaming the notes in the same measure:



DOTTED NOTES

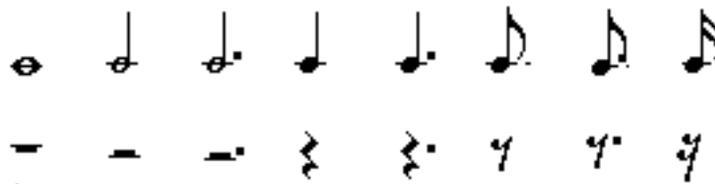
A dot lengthens a note's value by half. For example ...

- since a halfnote is equal to two quarternotes, a dotted halfnote is equal to three quarternotes
- since a quarternote is equal to two eighthnotes, a dotted quarternote is equal to three eighthnotes
- since an eighthnote is equal to two sixteenthnotes, a dotted eighthnote to three sixteenthnotes ... as shown in the example below



... AND THE REST IS HISTORY!

Rest symbols are used to indicate a length of silence. For every note value, there is a corresponding rest symbol. Each of these rests indicates that the silence is held for the same number of beats as its equivalent note.



Notes and their equivalent rests

The difference in appearance between the whole rest and the half rest is hard to recognize at first. It may be helpful to say that the whole rest symbol fills the top half of a space to show that it has greater value than the half rest, which fills the lower half of a space.



THE METER IS RUNNING . . .

So far we have discussed only relative note values; we know that a halfnote is half as long as a whole note, for example, but we don't know how many beats to count for either of them. That information is provided by the **meter signature** or **time signature** which appears at the beginning of the piece, right after the clef and the key signature. It is most often shown as two numerals, one directly above the other similar to a fraction:



The lower number refers to note type: for example, "4" means quarternotes while "8" means eighthnotes. The upper number tells you how many beats each measure will have if you count the beat with notes of the given value

A "4/4" signature tells the reader that each measure of the following music will have the same time value as four quarternotes, and it also suggests that each measure will have four beats. It doesn't mean that every measure will necessarily have four actual quarternotes in it — only that the combined values of the notes and rests in the measure will add up to equal four quarternotes.

ARE WE HAVING FUN YET???

LEARNING MORE SONGS

Up to this point you have been learning some very basic but important things about playing the harmonica. But the real reason you want to learn to play is so that you can make music and have fun doing it.

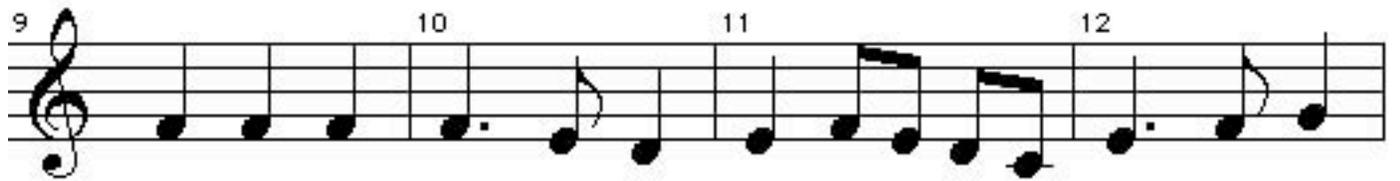
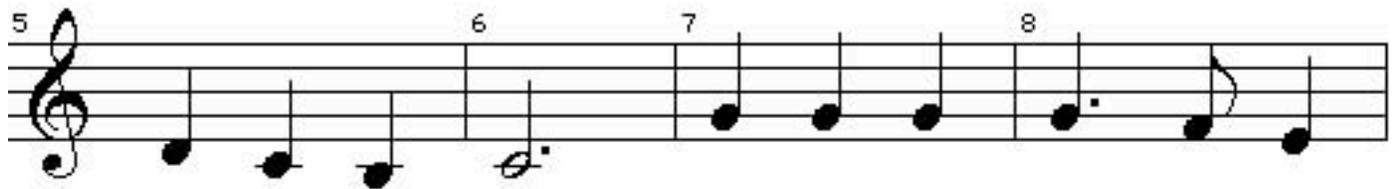
The rest of this student guide is designed to help you do just that. There are songs to learn and activities designed for special musical fun.

The rest of the songs in this book are all playable on the 12-hole diatonic. The first few can be played in the middle octave which we have been learning about. Others require you to play some notes in the lower octave and the upper octave. Before you get to those songs you will find instructions to help you learn what you need to know about those octaves.

Frere Jacques

The image displays a musical score for the song "Frere Jacques" in 4/4 time. The score is written on four staves, each beginning with a treble clef and a 4/4 time signature. The first staff contains measures 1 and 2, with a '2' above the second measure. The second staff contains measures 3 and 4, with a '3' above the first measure and a '4' above the second measure. The third staff contains measures 5 and 6, with a '5' above the first measure and a '6' above the second measure. The fourth staff contains measures 7 and 8, with a '7' above the first measure and an '8' above the second measure. The piece concludes with a double bar line at the end of the eighth measure.

America



On Top Of Old Smoky



Alouette

The image displays a musical score for the piece "Alouette" in 4/4 time. The score is written on six staves, each beginning with a treble clef. The music is organized into measures, with measure numbers 1 through 13 indicated above the notes. The notation includes quarter notes, eighth notes, and sixteenth notes, often beamed together. Measure 9 features a fermata over a half note. The piece concludes with a final whole note in measure 13.

Although your solo-tuned diatonic harmonica is tuned in the key of C, there are a few songs you can play in other keys. These are songs that contain ONLY notes that occur naturally in the key of C — that is, none of the notes are what we call **sharps** or **flats**. Here is an example in the key of G. In the G major scale, the seventh tone (**ti**) is F sharp. However, this song contains no F sharps.

Tom Dooley

The musical score for "Tom Dooley" is presented in a single system with four staves, each containing four measures of music. The key signature is one sharp (F#), and the time signature is 4/4. The notes used are G, A, B, C, D, E, and F#, which are all natural notes in the key of C. The melody is as follows:

- Measure 1: G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter)
- Measure 2: D5 (quarter), C5 (quarter), B4 (quarter), A4 (quarter)
- Measure 3: G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter)
- Measure 4: D5 (quarter), C5 (quarter), B4 (quarter), A4 (quarter)
- Measure 5: G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter)
- Measure 6: D5 (quarter), C5 (quarter), B4 (quarter), A4 (quarter)
- Measure 7: G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter)
- Measure 8: D5 (quarter), C5 (quarter), B4 (quarter), A4 (quarter)
- Measure 9: G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter)
- Measure 10: D5 (quarter), C5 (quarter), B4 (quarter), A4 (quarter)
- Measure 11: G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter)
- Measure 12: D5 (quarter), C5 (quarter), B4 (quarter), A4 (quarter)
- Measure 13: G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter)
- Measure 14: D5 (quarter), C5 (quarter), B4 (quarter), A4 (quarter)
- Measure 15: G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter)
- Measure 16: D5 (quarter), C5 (quarter), B4 (quarter), A4 (quarter)

Here is another song that you can play on your solo-tuned diatonic harmonica tuned in the key of C, even though the song is written in a different key. In this case, the key is F, in which the fourth tone of the major scale (**fa**) is B flat. However, there are no B flats in this tune.

Swing Low, Sweet Chariot

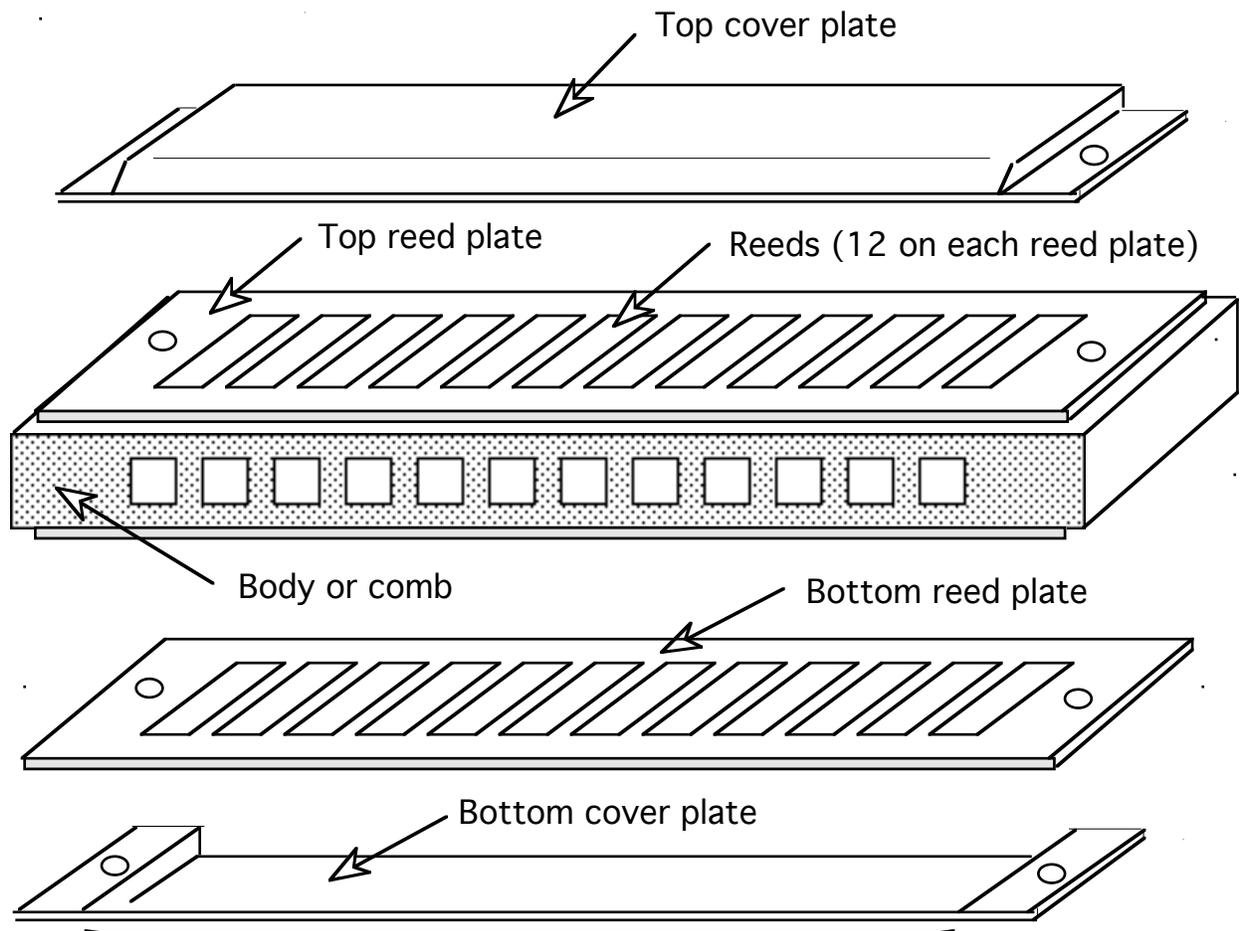
The image displays the musical notation for the song "Swing Low, Sweet Chariot" in F major, 4/4 time. The notation is presented in four staves, each containing a measure number from 1 to 16. The key signature is one flat (Bb), and the time signature is 4/4. The melody is written in a single voice on a treble clef staff. The notes are as follows:

- Staff 1 (Measures 1-4): G4 (quarter), A4 (quarter), Bb4 (quarter), A4-G4 (beamed eighth notes), F4 (quarter), E4 (quarter), D4 (quarter), C4 (quarter).
- Staff 2 (Measures 5-8): Bb4 (quarter), A4 (quarter), G4 (quarter), F4 (quarter), E4 (quarter), D4 (quarter), C4 (quarter), Bb4 (quarter).
- Staff 3 (Measures 9-12): A4 (quarter), G4 (quarter), F4 (quarter), E4 (quarter), D4 (quarter), C4 (quarter), Bb4 (quarter), A4 (quarter).
- Staff 4 (Measures 13-16): G4 (quarter), F4 (quarter), E4 (quarter), D4 (quarter), C4 (quarter), Bb4 (quarter), A4 (quarter), G4 (quarter).

APPENDIX

HOW HARMONICAS ARE MADE

Harmonicas come in many sizes and shapes, but all harmonicas have a few basic parts in common. These basic parts are shown in the drawings below.



The sounds that a harmonica makes are produced by small brass strips called **reeds**. The reeds vibrate when the player either **blows** (exhales) or **draws** (inhales) air through the holes in the front of the instrument. Each reed is of a slightly different length from all the other reeds. Each reed is positioned over a slot in a brass **reed plate** and fastened to the reed plate at one end by a rivet.

Most harmonicas, including the one shown in the drawings, have two reed plates, fastened to opposite (top and bottom) sides of a slotted piece of wood or plastic called a **comb** or body. When sandwiched together, the reed plates and the comb form separate air chambers, each containing two reeds. One of the reeds (the one mounted on the outside of one of the reed plates) vibrates **only** when the player **blows** air through the chamber. The other reed (the one mounted on the inside of the other reed plate)

vibrates **only** when the player **draws** air through the chamber.

The reeds are of different lengths. Because of their different lengths, they vibrate at different frequencies so that they will produce different tones. The longer reeds produce tones of lower frequency and the shorter reeds produce tones of higher frequency.

TAKING CARE OF YOUR HARMONICA

The reeds of a harmonica are very delicate. They can be damaged by

- blowing or drawing too hard
- contact with other objects, including the player's fingers.

The reeds are protected by cover plates on the top and bottom of the harmonica. (The cover plates also create a sound chamber that, together with the player's hands, can alter the sound of the notes played.)

Here are some important steps for taking care of your harmonica:

- Keep it in its case or box when not being used.
- Always play with a clean mouth. Don't eat or drink while, or just before, playing.
- Unless you are experienced in harmonica repair, leave your harmonica in one piece. If repairs are needed, see someone who knows what to do.
- Protect your harmonica from cold or heat. Don't leave it in the car or in a schoolbag, tote bag, etc. outside. It's o.k., though, to carry it in your pocket outside because your body will keep it at the right temperature. If it does get exposed to extreme cold and is very cold to the touch, let it warm to room temperature in your hand or pocket before playing.
- Protect it even though it's in its case or box. Sitting on it or stepping on it while it's in the case can damage it. Don't bang it on anything while it's in or out of the case.
- Dry it before putting it away. Moisture builds up in your harmonica from (1) condensation and (2) saliva. If it is really wet after you play, wipe the outside surfaces with a clean cloth or paper towel and then gently tap it (hole side down) on the palm of your hand to knock some of the moisture out. Whenever possible, let it dry in the open air before putting it in its case for storage.

HELPFUL GUIDELINES FOR PRACTICING WITH YOUR HARMONICA

Now that you have begun your harmonica playing adventure, remember that practice is what makes any musician improve and enjoy his or her music more. Here are some guidelines for making your practice more fun and more helpful.

- Find a quiet place. Practice where you won't be disturbed by other people or noises. It should also be a place where other people can't hear you so you won't feel restricted from playing around and experimenting with it.
- Practice a little each day if possible. It's better to practice a little each day than to practice a lot on one day and not practice at all for 3 or 4 days.
- Start each practice time with the basics. Review the things you have already learned first so that they become more and more automatic.
- Finish by playing what you like. End each practice session by doing what you enjoy most, your favorite tune or just "messin' around".
- Don't worry if you make mistakes. The only way to learn how to do something you've never done before is to try it. If you've never done it before you have to make mistakes on the way to mastering it.
- Keep trying. Sometimes you may feel like you're not getting any better, even though you're practicing. Whatever it is you're working on, one day you will suddenly master it if you don't give up.