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## **Scales Lesson 3**

## **Harmonizing Scales**

The notes in a scale can also be used to build the chords and chord progressions played in a song (please refer to the chord's chapter for a detailed analysis on chords). For example, the notes from the C major scale (C, D, E, F, G, A, B) can be used to build many chords. Table 1 below shows the seven basic chord triads built using the notes from the C major scale.

Chord Name	Chord Notes
C Major	C, E, G
D Minor	D, F, A
E Minor	E, G, B
F Major	F, A, C
G Major	G, B, D
A Minor	A, C, E
B Diminished	B, D, F

Table 1 - C major scale chord triads

Notice how all seven chords were constructed using the seven notes from the C major scale. This is true for every major scale. The G major scale (G, A, B, C, D, E, F#) is shown on the next page and uses the same chord types that the C major scale uses in the same order.

Chord Name	<b>Chord Notes</b>			
G Major	G, B, D			
A Minor	A, C, E			
B Minor	B, D, F#			
C Major	C, E, G			
D Major	D, F#, A			
E Minor	E, G, B			

Table 2 - G major scale chord triads

For all major scales, the first note in the scale is played as a major chord. In the C major scale example, C is the first note in the C major scale and is played as a major chord. In the G major scale example, G is the first note in the G major scale and is played a major chord. The second and third notes in a major scale are played as a minor chord. The fourth and fifth notes are played as major chords. The sixth note is played as a minor chord, and the seventh note is played as a diminished chord. This order must be followed to ensure the notes in the chords come from the major scale's notes. Remember, these rules are true for all major scales. The table 3 below shows these rules for any major scale using roman numerals for scale steps. Please note, uppercase roman numerals are used for major chords, and lowercase roman numerals are used with minor chords.

Chord Name (any major scale)	Chord Notes
I Major	1, 3, 5
ii Minor	2, 4, 6
iii Minor	3, 5, 7
IV Major	4, 6, 1
V Major	5, 7, 2
vi Minor	6, 1, 3
vii Diminished	7, 2, 4

Table 3 - Harmonized Major Scale

This table, however, only shows seven chords, one chord for each note in the scale. There are many chords that can be built using the notes from a scale, and the next table 4 shows 27 chord types harmonized to the major scale. Notice that each of the seven notes has many chord types associated with it (the chords chapter will discuss how to build chords). This will allow greater creativity with so many chords to choose from!

Major Scale Tone Numbers	Chord Name (any major scale)
l	Major, Sus2, Sus4, Added Ninth, Sixth, Sixth added Ninth, Major Seventh, Major Ninth, Major Thirteenth
ii	Minor, Sus2, Sus4, Minor added Ninth, Minor Sixth, Sixth added Ninth, Minor Seventh, Minor Ninth, Minor Eleventh, Minor Thirteenth, Dom Seventh Sus4, Dom Ninth Sus4, Dom Thirteenth Sus4
iii	Minor, Sus4, Minor Flat Six, Minor Seventh, Dom Seventh Sus4
IV	Major, Sus2, Added Ninth, Sixth, Sixth added Ninth, Major Seventh, Major Ninth, Major Thirteenth
V	Major, Sus2, Sus4, Added Ninth, Sixth, Sixth added Ninth, Dom Seventh, Dom Seventh Sus4, Dom Ninth, Dom Ninth Sus4, Dom Eleventh, Dom Thirteenth, Thirteenth Sus4
vi	Minor, Sus2, Sus4, Minor added Ninth, Minor Flat Six, Minor Seventh, Minor Ninth, Minor Eleventh, Dom Seventh Sus4, Dom Ninth Sus4
vii	Diminished, Minor Seven-Flat Five

Table 4 - 27 chord types harmonized to the major scale

After learning how to harmonize a few scales, it should be clear to see that any scale can be harmonized to build many chords. Table 5 below shows several examples of common scales harmonized to triad chords and seventh chords. These triad chords can be extended even further to give even more chord possibilities!

Scale Name	I	II	III	IV	V	VI	VII
Major	Major	Minor	Minor	Major	Major	Minor	Diminished
1-2-3-4-5-6-7	Maj7	Min7	Min7	Maj7	Dom7	Min7	Min7b5
Minor	Minor	Diminished	Major	Minor	Minor	Major	Major
1-2-b3-4-5-b6-b7	Min7	Min7b5	Maj7	Min7	Min7	Maj7	Dom7
Harmonic Minor	Minor	Diminished	Augmented	Minor	Major	Major	Diminished
1-2-b3-4-5-b6-7	Min/maj7	Min7b5	Maj7#5	Min7	Dom7	Maj7	Dim7
Melodic Minor	Minor	Minor	Augmented	Major	Major	Diminished	Diminished
1-2-b3-4-5-6-7	Min/maj7	Min7	Maj7#5	Dom7	Dom7	Min7b5	Min7b5
Dorian b2	Minor	Augmented	Major	Major	Diminished	Diminished	Minor
1-b2-b3-4-5-6-b7	Min7	Maj7#5	Dom7	Dom7	Min7b5	Min7b5	Min/maj7
Phrygian Dominant	Major	Major	Diminished	Minor	Diminished	Augmented	Minor
1-b2-3-4-5-b6-b7	Dom7	Maj7	Dim7	Min/maj7	Min7b5	Maj7#5	Min7
Lydian Minor	Major	Major b5	Diminished	Augmented	Minor#5	Augmented	Augmented
1-2-3-#4-5-b6-b7	Dom7	Dom7b5	Min7b5	Dom7#5	Min#7#5	Maj7#5	Dom7#5
Mixolydian-	Augmented	Minor	Major b5	Major	Augmented	Minor	Major
Augmented	Dom7#5	Min7	Dom7b5	Maj7	Aug bb7 (6)	Min/maj7	Maj7
1-2-3-4-#5-6-b7							
Locrian Dominant	Major b5	Major	Augmented	Minor	Major	Augmented	Minor
1-b2-3-4-b5-b6-b7	Dom7b5	Maj7	Aug bb7 (6)	Min/maj7	Maj7	Dom7#5	Min7