



RockStudy Music

The Theory Behind Rock & Pop

Topic 4

**Pitch material and Scale forms in
Rock and Pop music.**

By Lachlan Wilson

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Pitch material and Scale forms in Rock and Pop music.

Overview	P3
About the Author	P3
Users Gui	P4
Introduc-	P5
Topic 1: The major scale.	P6
Topic 2: The minor scal	P9
Topic 3: The major pentaton-	P11
Topic 4: The minor pentatonic scale	P12
Topic 5: The blues scale.	P13
Topic 6: The Dorian mode	P14
Topic 7: The Mixolydian mode	P16
Conclusion	P18
Listening Examples	P19 - 20



Overview

Rock and roll music developed throughout America from the middle of the twentieth century onwards. Young adults, then known as teenagers, looked to identify their contemporary status by way of specific clothing fashion, young role models, who were often film actors such as James Dean and Marlon Brando, and most importantly, a new musical style that projected optimism, excitement, and rhythmic vitality.

The emerging rock and roll musician was inevitably young, enthusiastic, and musically untrained. However by varying and adapting much of the musical language of previous styles, particularly Rhythm and Blues and Country music, a new form of music evolved, one that spoke clearly to the young people of America and subsequently throughout the whole world. This evolution has continued to develop over several decades thereby influencing the many stylistically variations within the genre.

Furthermore, many rock musicians have developed considerable technical skills without any real understanding of music notation and how the theoretical aspect of musical language relates to performance. There can be little doubt that a thorough understanding of music theory can further enhance performance and compositional skills within the musician, which ultimately leads to a more overall proficient musical artist.

About the Author

Melbourne based musician Lachlan Wilson was drawn to Rock and Roll music from a very young age, and this involvement has since spanned many decades. Whilst also embracing many other musical styles, it was the initial impact of Rock music that has always remained a strong influence throughout his musical career.

As a performer Lachlan has played saxophone and flute in several groups and ensembles throughout Australia dating from the 1960's, through to more contemporary times.

The desire for a more comprehensive understanding of music theory saw him undertake further study where he completed a Bachelor of Music at the University of Melbourne, later leading to additional Post Graduate studies in both composition and education.

Lachlan has subsequently taught harmony and counterpoint at tertiary level for more than 20 years in contrasting musical genres ranging from the Renaissance era through to contemporary non-tonal theoretical practices.

During these educational sessions, the energy and authority of the musical language associated with Rock and Pop music has formed the basis of these instructive modules.

User's Guide

The headphone symbol lets you know that there is listening material available via the links provided.



The vinyl record symbol lets you know when a specific piece of music is being discussed. The title, artist and composer will be listed here.



Analysis and notation examples are indicated by the image of a treble clef.



Generally notation examples are designed to reinforce the audio examples and offer support for different levels of music theory knowledge. Examples include:

The chord symbol or name. Amaj, Dmin, etc.

The chord's functional name: Tonic, Dominant, Mediant, ect.

The chord's function, represented as a Roman Numeral: I, ii, iii, IV, V etc. It should be noted that in this style an upper case numeral indicates a major chord, and a lower case numeral indicates a minor chord. Additional symbols provide further information such as o denotes that the chord is a diminished triad and the + sign denotes that the chord is an augmented triad. The musical notes, key signature and time signatures will also be laid out across a musical staff.

Additionally each topic will also have its own playlist available on Spotify. These playlists include the original artist version of the songs examined as well as extra listening examples related to the topic. Click [Here](#) to listen to Spotify playlist for this book.

Go to <https://www.rockstudymusic.com/> for details.

Purchasing



If you wish to develop an educational version for use in the classroom, please contact the Victorian Music Teachers Association.

Go to <https://www.vmta.org.au/online-store/rockstudy-music-online-theory-courses/>

Introduction

It is not the intention during these modules to extensively examine the rudiments of music theory, rather to objectively discuss and inform how the Rock and Pop genres make use of traditional Western music theoretical aspects, and adapt these elements in determining the musical vocabulary of these contemporary musical styles. However during this topic some fundamental details will be covered to ensure that a solid base is developed from which more complex musical aspects will be discussed. The first of these elements will relate to the pitch material and the specific scale structures commonly found in Rock and Pop music. Regular musical examples will highlight the aural sensation and melodic colour that each of the scale forms contributes to the tunes in the various tonal centres. It should be noted that the scale form used during music largely determines the distinctive colour and mood of the piece. Rock and Pop music, like most western musical styles, embrace a wide range of colours and moods within the genre with a distinct preference for a number of specific scale types. Each of these scale forms will be examined in detail with reference to some of the more iconic Rock and Pop songs in which the scales can be found and identified.

Podcast

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Playlists

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Go to

<https://www.vmta.org.au/online-store/rockstudy-music-online-theory-courses/>

Topic 1 - The Major Scale

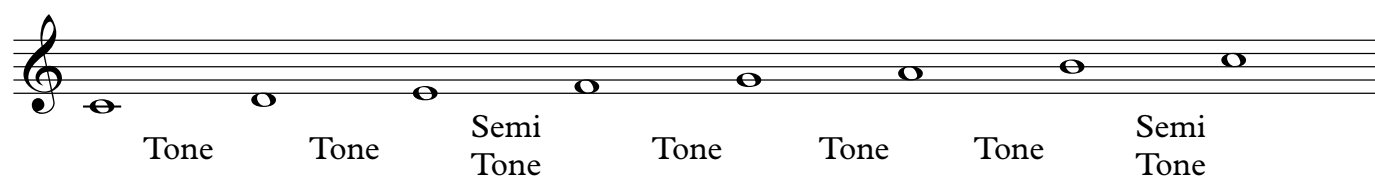
The major scale, also known as the Ionian mode, has become an important device, not only for the composition of music in major tonalities, but also a valuable tool relating to a number of other musical elements, significantly the calculation of melodic and harmonic intervals. It cannot be stressed enough the value in becoming totally familiar with all aspects of the major scale in every key. This is equally important to the performance aspect as well as theoretical awareness. Simply put, there should be no differentiation in the understanding between any of the major scales, regardless of the key implied. No major scale should be perceived as more difficult than another. Furthermore the major scale provides a valuable tool when used as a template to construct the other scale forms as found in the Rock and Pop genre.

The major scale contains a series of pitches from one octave to the next with a particular pattern of tones and semitones. Each interval of a tone includes two semitones. The location of the semitones provides the tension, colour, and character of the scale thereby establishing a hierarchy between the notes.

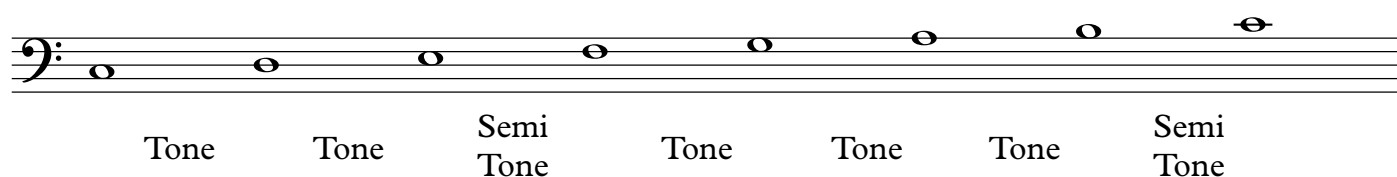
Each note letter name must be included with none repeated, that is except for the upper, or lower, beginning pitch. This beginning and ending note is referred to as the tonic pitch. By ensuring that each letter name has been included in the aggregate this will ensure that the correct pitch names are notated within the scale. In Rock and Pop music many of the pieces are written in sharp keys, therefore it is important to accurately name each of the notes.

The major scale pattern of notes contains the intervals of a tone, followed by another tone, and continued on with the intervals of a semitone, tone, tone, tone, and finally another semitone. The completed scale pattern, based upon the pitch C, is then follows.

Example 1 (a).

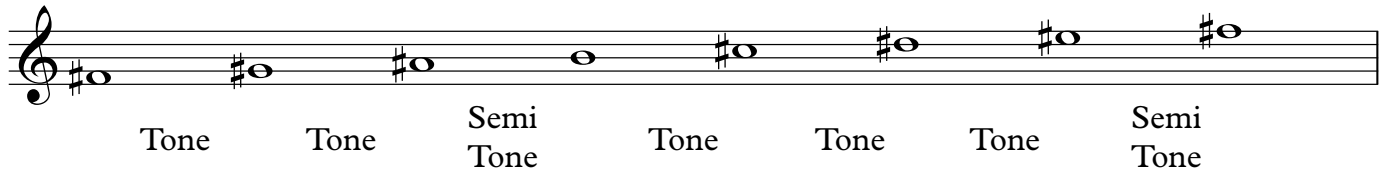


Example 1 (b).

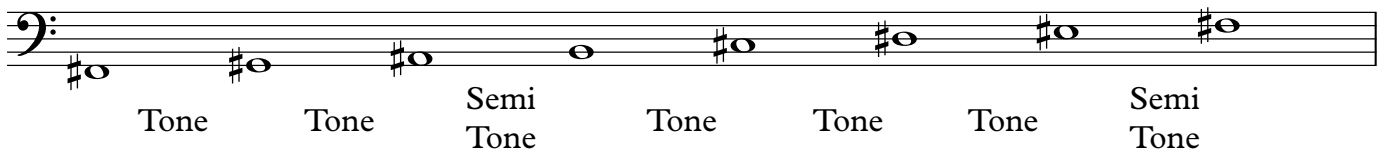


This formula when mentally retained, will allow the construction of all major scales beginning on any pitch. Refer to the following example of the F# major scale, which will demonstrate the intervallic formula when ensuring all the letter names have been included. This will automatically correct any confusion with enharmonic spelling.

Example 2 (a).



Example 2 (b).



The Major scale has been used continually throughout the history of Rock and Pop music to construct the melodic component of many successful songs and will be easily identifiable regardless of the style employed by the songwriter. There is a sense of optimism and brightness in music written in the major tonality, regardless of any underlining despair that may be contained within the lyrics of the tune. Ballads regularly make use of the major scale during the melodic invention, and whilst it may seem pointless to highlight any specific songs out of the countless tunes that have been composed over the decades, two excellent examples can be found when examining two contrasting pieces, each of which has been written by a single member of arguably the most successful song writing team in Rock and Pop's history, that team being John Lennon and Paul McCartney, artists who had developed excellent composition skills and refined their craft over many years.



“Let it Be” John Lennon/Paul McCartney

“Let it Be” was written by Paul McCartney alone and released in 1970 a track on the final Beatles studio-recording album of the same name. The melody is very memorable and shows off the uplifting nature of the C major scale whilst the lyrics are set in a quiet reflective manner with an element of despair.



Click on your preferred streaming platform to listen to “Let it be” from 0:12 – 0:51



“Imagine” John Lennon/Yoko Ono

The following year John Lennon wrote and recorded “Imagine”, where similarly the melodic line has been taken from the C major scale. “Imagine”, with its message of hope, has subsequently become something of an anthem for listeners longing for peace and tranquility throughout the world order.



Click on your preferred streaming platform to listen to “Imagine” from 0:51 – 01:52



Exercises and Activities.
Pitch material & scale forms



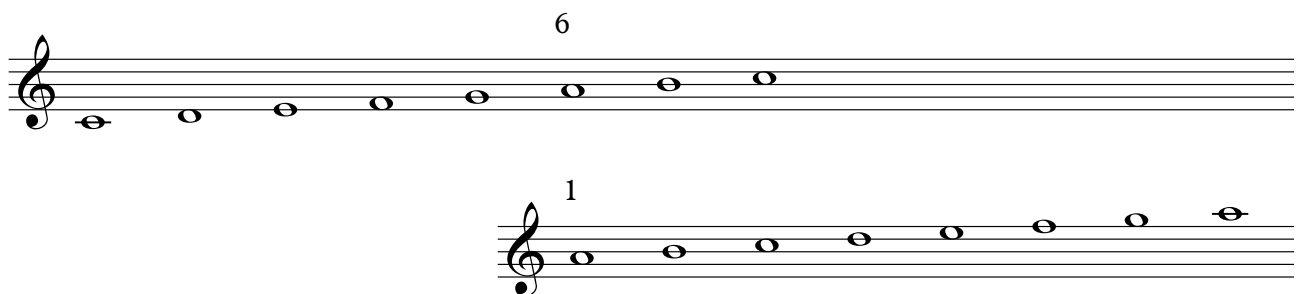
Topic 2 - The Minor Scales.

Along with the major scale structure, tonal music also incorporated minor scales. Whilst there are several types of minor scales used in the mainstream styles of traditional Western music, the minor scale mostly used in Rock and Pop music is known as the Natural Minor scale, also referred to as the Aeolian mode. This scale form does not contain a raised leading note, which has never really sat comfortably with Rock and Pop songwriters.

In this particular case the actual notes remain the same as the major scale, however this scale form would begin its tonic on the 6th degree of the related major scale. As a result the order of tones and semitones would vary from the major scale, yet the pitches involved are similar.

Refer to the following example notated in the treble clef.

Musical example 3.

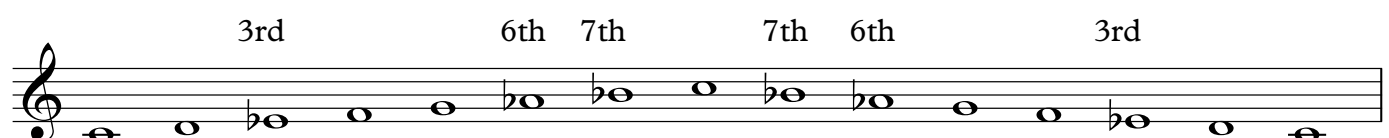


This process is known as the relative minor scale and traditional music theory often refers to this form of relative major and minor scales and keys.

Tonic note comparison minor scales.

An additional method of readily identifying, or reinforcing the natural minor scale, can be considered by using the tonic note comparison between scale forms. This is simply a matter of making alterations to the major scale built upon the same tonic note. This is in contrast to the use of the relative forms of minor scales. This type of scale is referred to as the parallel minor scale. To construct the natural minor scale simply begin with the Major scale and then lower the 3rd, 6th, and 7th degrees both ascending and descending.

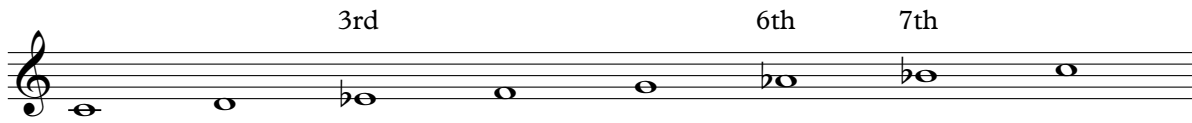
Musical example 4.



Musical example 5a



Musical example 5b



Many Rock musicians have found this alternative method somewhat more simple to understand and of considerable value, particularly during performance. This awareness further underlines the value and importance of a thorough comprehension of all of the available major scales.



"I Was Made For Lovin' You" Paul Stanley/Vini Poncia/Desmond Child"

As can be seen in the two previous examples set in the major tonality, lyric content does not necessarily determine whether the melodic material is best suited to either the major or minor scale form. Consider the following tune "I was made for lovin' you" recorded by the highly theatrical Rock group Kiss in the late 1970's, where a disco inspired song could be referred to as an uplifting love song, despite its melodic line sitting perfectly well within its E minor tonality.



Click on the link to listen to
"I Was Made For Lovin' You"
from 0:22 - 01:22



"Losing My Religion" Bill Berry/Peter Buck/Mike Mills/ Michael Stipe

An ideal example of the natural minor scale being employed for both harmonic and melodic content can be found in the 1992 Grammy award winning song "Losing my Religion" by R.E.M. In this song the scale structure of the A natural minor scale, similar to the related C major scale without any accidentals, solely provides the pitch material for both the chord progression and the songs' tune.



Click on the link to listen to
"Losing My Religion" from 0:14 - 0:50



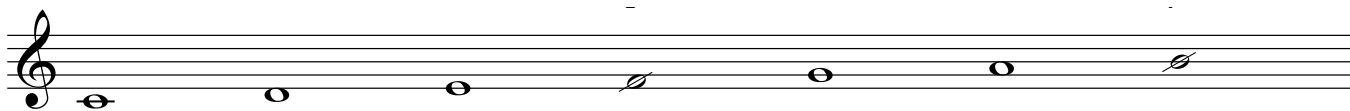
Exercises and Activities.
Pitch material & scale forms



Topic 3 - Major pentatonic scales.

A very popular scale form that has been regularly used in Pop music is the 5 note major pentatonic scale. This scale form is a variant of the major scale in as much as the 4th and 7th scale degrees have been omitted, leaving a series of pitches that do not contain any semitone intervals.

Example 6.



It is this adjustment that reduces melodic tension and maintains a folk- like quality in a given tune.



"Amazing Grace" John Newton

One of the most recognisable historic examples of this scale form can be found in the ancient hymn "Amazing Grace" with text written by John Newton in the late 1770's. There have been countless versions of this tune in both vocal and orchestral settings, with a good example of the versatility and contemporary sonority of the major pentatonic scale is evident in an instrumental version by English Rock guitarist Jeff Beck.



Click on the link to listen to
"Amazing Grace" from 1:08 - 1:45"



"My Girl" Smokey Robinson/Ronald White

One of the most popular soul songs of the 1960's was written by "Smokey" Robinson and recorded by the Temptations. The song, "My Girl", was released in late 1964 and has since become one of the most recognizable tunes of the era, both for its distinctive instrumental introduction and the highly melodic vocal line. Each of these components explores fully the C major pentatonic scale qualities. The soulful yet tension free song, initially set within the C major tonality, also modulates to D major after the instrumental interlude whilst continuing to maintain its major pentatonic flavour.



Click on the link to listen to
"My Girl" from 0:00 - 1:45"

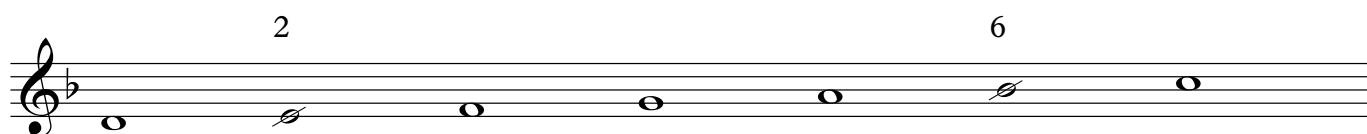


Topic 4 - Minor pentatonic scales.

Just as the 5 note major pentatonic scale has been extensively used in Pop music, so too has the equivalent minor version of the scale structure. Although in this case the scale is derived through modifying the natural minor scale by omitting the 2nd and 6th scale degrees, leaving a series of pitches that again do not contain any semitone intervals.

Note the following D minor pentatonic scale.

Example 7



However this type of minor scale form contains a distinct blues type quality and is ideal for melodic lines more common in Rock music than Pop music and has been a particularly popular device for many Rock guitarist instrumental solos.



"Black Magic Woman" Peter Green

A particularly good example of the minor pentatonic scale can be found in the vocal line of "Black Magic Woman", originally written by Peter Green and recorded by Fleetwood Mac in the late 1960's, although Santana released the more popular version later in 1970. Here the D minor pentatonic scale, used in both versions, clearly highlights the voodoo-rock nature of the tune.



Click on the link to listen to
"Black Magic Woman" from 1:06 - 1:54"





“Sunshine of your Love” Jack Bruce/Eric Clapton

Whilst the minor pentatonic scale is used mostly during songs in minor keys, the scale form is just as effective in Rock music written in major keys. The same D minor pentatonic scale as heard in the melodic line of “Black Magic Woman” can be found in Cream’s 1960’s hit song “Sunshine of your Love”, albeit with a few deviations.

However in the case of “Sunshine of your Love”, the tonality is D major and contains purely major triads in contrast to “Black Magic Woman” which is set firmly in D minor. The bluesy quality of the minor pentatonic scale is emphasised as dissonances when accompanied by major chords.



Click on the link to listen to
“Sunshine of your Love”
from 0:15 – 0:45”



Topic 5 - Blues scales

An extension of the Minor Pentatonic scale is the traditional Blues scale, which as the name suggests has been a major component of American Blues music, a most popular genre throughout the 20th and 21st centuries.

In this case an additional pitch is inserted between the 4th and 5th degree of the scale, located immediately after the 3th pitch and generally acts as a passing note, thereby creating further dissonance by way of two consecutive semitone intervals.

Example 8

D minor pentatonic scale

D Blues scale

In Rock music this scale is used more in an instrumental capacity rather than vocal delivery and is a much-favoured structure for the composition of riffs and improvised solos.

Referring back to the previous example of “Sunshine of your Love”, the D blues scale is prominent during the introduction where emphasis is placed upon the blues inspired semitone intervals.



Click on the link to listen to
“Sunshine of your Love”
from 0:00 – 0:16



Exercises and Activities.
Pitch material & scale forms



Topic 6 - The Dorian Mode

Reference has been made to the major scale and natural minor scale as a type of mode. A mode being a form of a displaced major scale where the pattern of semitones are located at different points within the structure, thereby giving a particular colour to that scale or mode.

Whilst there are a total of seven modes, Rock and Pop music mainly make use of the two kinds already discussed. However there are many instances of two other mode forms found within the style. The first of these additional modes is the Dorian mode and is similar to the Aeolian mode, although in this case the 6th degree has not been lowered.

Therefore the Dorian mode based upon the pitch D would incorporate the same pitches as the C major scale as follows.

Example 9





“Love is in the Air” Harry Vanda/George Young

This scale form can be clearly heard as an ascending pattern in the internationally popular 1978 Australian song “Love is in the Air”. Here the scale acts as a musical transition leading into recurring chorus sections of the song.



Click on the link to listen to
“Love is in the Air” from 2:25 - 3:12”



“Cat’s in the Cradle” Harry Chapin

There are numerous examples of the Dorian mode being used in both Rock and Pop music including the basis for underlying harmonic progressions. Importantly this mode is ideal for the melodic construction of folk influenced tunes such as the Harry Chapin folk rock song “Cat’s in the Cradle” released in 1974, and eventually being inducted into the Grammy Hall of Fame.



Click on the link to listen to
“Cat’s in the Cradle” from 0:00 - 0:56”



Topic 7 - The Mixolydian Mode

The second of the additional modes is the Mixolydian mode, which is similar to the standard major scale, however with the 7th degree leading-note lowered. The lowered leading note appears as a regular feature in most scale forms found within the Rock and Pop genre and is a distinctive element to the overall sound of the style.

The following example shows the Mixolydian mode based upon C.



"Tequila" Chuck Rio

This lowered leading note is evident in the universally popular instrumental "Tequila" released by the Champs during the early days of Rock and Roll music and has since gone on to become a much recognized tune to many subsequent generations. This Mexican inspired piece has been identified as being in the key of F major, however during the highly familiar yet simple 4 note melodic figure heard during the main A section each of the E note pitches has been flattened to E flat.

Note the following notated example where the tune is represented using the F Mixolydian mode.

Example 11



Click on the link to listen to
"Tequila" from 0:20 - 0:42"





"Boy from New York City" George Davis/John. T. Taylor"

The Mixolydian mode with its major scale sonority coupled with the lowered 7th degree has long been an ideal scale form for melodic writing that provides a positive upbeat flavour whilst incorporating a slight bluesy touch. This has regularly resonated with soul singers and is particularly well displayed in the 1960's song "Boy from New York City" by the vocal soul group the Ad Libs. The melody, with the exception of a single short pitch, which incidentally also reinforces the lowered 7th degree, has been totally set within the Bb Mixolydian mode.



Click on the link to listen to
"Boy from New York City"
from 0:00 - 1:02"



This song was to be a major hit later on in the early 1980's when recorded by the sophisticated choral quartet "Manhattan Transfer" demonstrating the popular ongoing appeal of this type of scale form.

Exercises and Activities.
Pitch material & scale forms



Conclusion

The various scale forms as discussed have continued to represent the bulk of melodic invention for tunes written in the Rock and Pop genre. Whilst there have been occasions where more exotic or traditional scale types have been employed, these have been the exception rather than the rule. As a result a thorough understanding of each and all of the scale types examined during this module should be a basic requirement for Rock and Pop performers and songwriters.

Pitch material and Scale Forms.

Listening examples.

"Title.	"Let it Be"
Songwriter.	John Lennon/Paul McCartney
Recording artist.	The Beatles
Title.	"Imagine"
Songwriter.	John Lennon/Yoko Ono
Recording artist.	John Lennon
Title.	"I was made for Lovin' You"
Songwriter.	Paul Stanley/Vini Poncia/Desmond Child
Recording artist.	Kiss
Title.	"Losing My Religion"
Songwriter.	Bill Berry/Peter Buck/Mike Mills/Michael Stipe
Recording artist.	R.E.M.
Title.	"Amazing Grace"
Songwriter.	John Newton
Recording artist.	Jeff Beck
Title.	"My Girl"
Songwriter.	Smokey Robinson/Ronald White
Recording artist.	The Temptations
Title.	"Black Magic Woman"
Songwriter.	Peter Green
Recording artist.	Santana
Title.	"Sunshine of Your Love"
Songwriter.	Jack Bruce/Eric Clapton
Recording artist.	Cream"

Pitch material and Scale Forms.

Listening examples.

"Title.	"Love is in the Air"
Songwriter.	Harry Vanda/George Young
Recording artist.	John Paul Young

Title.	"Cat's in the Cradle"
Songwriter.	Harry Chapin
Recording artist.	Harry Chapin

Title.	"Tequila"
Songwriter.	Chuck Rio
Recording artist.	The Champs

Title.	"Boy From New York City"
Songwriter.	George Davis/John. T. Taylor
Recording artist.	The Ad Libs"